

CONTROLLING EMOTIONS

Contents

Articles

DEFINING GOOD	1
Catholic Encyclopedia (1913)/Good	1
Nicene and Post-Nicene Fathers: Series I/Volume IV/Manichaeian Controversy/Concerning the Nature of Good/Chapter 1	8
Beyond Good and Evil/Chapter I	9
Beyond Good and Evil/Chapter IX	18
DEFINING HAPPINESS	31
Catholic Encyclopedia (1913)/The Highest Good	31
DEFINING EMOTIONS	36
Catholic Encyclopedia (1913)/Passions	36
DEFINING TRUE KNOWLEDGE	38
EMOTIONAL EFFECTS AFTER KNOWLEDGE CREATION	39
Human All-Too-Human	39
Astonishing functions of human brain and miracles of mind	170
Personal Idealism/Axioms as Postulates	247
The Analysis of Mind/Lecture XIV	287
DEFINING MORALITY	290
The Human Origin of Morals/Chapter VI	290
Ethics (Spinoza)/Part 3	293
Ethics (Spinoza)/Part 4	321
The Spirit of the Chinese People/1	348
Heretics/7	370
1911 Encyclopædia Britannica/Psychology	373
The Lost Keys of Freemasonry/Chapter 1	473
1911 Encyclopædia Britannica/Brain	476
undefined	515
Help:Books	515
Portal:Portals	518

ALTERING GOOD, HAPPINESS AND MORALITY IN A HUMAN 519

ALTERING GOOD, HAPPINESS, AND MORALITY IN SOCIETY 520

Wikisource:Authors-S 520

References

Article Sources and Contributors 538

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Article Licenses

License 540

DEFINING GOOD

Catholic Encyclopedia (1913)/Good

←Western Vicariate of the Cape of Good Hope **Catholic Encyclopedia** Godfrey Goodman→
(1913)
Good

"Good" is one of those primary ideas which cannot be strictly defined. In order to fix its philosophical significance we may begin by observing that the word is employed firstly as an adjective and secondly as a substantive. This distinction which is clearly marked in French by the two different terms, *bon* and *le bien*, may be preserved in English by prefixing an article to the term when it is employed substantively. We call a tool or instrument good, if it serves the purpose for which it is intended. That is to say, it is good because it is an efficient means to obtain a desired result. The result, in turn, may be desired for itself, or it may be sought as a means to some ulterior end. If it is sought for itself, it is or it is estimated by us to be a good, and therefore desirable on its own account. When we take some step to obtain it, it is the end of our action. The series of means and ends either stretches out indefinitely, or it must terminate in some desired object or objects which are ends in themselves. Again we sometimes call a thing good because it possesses completely, or in a high degree, the perfections proper to its nature, as a good painting, good respiration. Sometimes, too, things are termed good because they are of a nature to produce something desirable; that is, they are good casually. Finally, we speak of good conduct, a good man, a good intention, and here the adjective has for us a sense different from any of the foregoing, unless indeed, we are utilitarian philosophers, to whom morally good is but another term for useful.

Now in all these locutions the word conveys directly or indirectly the idea of desirability. The merely useful is desired for the end towards which it is employed; the end is desired on its own account. The latter is conceived as possessing some character, quality, power, which renders it an object of desire. Two questions now arise:

- What is it which, in the nature or being of any object, constitutes it desirable? Or, in more technical phrase, what, metaphysically speaking, constitutes the good or goodness in a thing, absolutely considered?
- What is the relationship existing between the good thus absolutely constituted and the subject to which it is desirable? Or what is implied by good, relatively considered?

These two questions may be combined in one: "What is the good in the ontological order?" In exposing the reply to this question we shall come across the moral good, and the ethical aspect of the problem, which shall be treated in the second place.

I. ONTOLOGICAL

In Greek philosophy no topic receives more attention than the nature of the good. The speculations of Plato and Aristotle, especially have had a notable influence on Christian thought; they were adopted, in eclectic fashion, by the early Fathers, who combined many of the ancient philosophic ideas with revealed truth, by correcting some and amplifying others. The synthesis was carried on by the earlier Scholastics, and took definitive form from the hand of St. Thomas. Some of his predecessors, as well as some of his followers, disagree with him on a few minor points, most of which, however, are of a character too subtle to call for attention in this article. We shall, therefore, present the doctrine of St. Thomas in outline as the approved teaching of our schools.

Plato

According to Plato, in the objective order corresponding to our thought, there are two different worlds: the world of things, and the incomparably higher, nobler world of ideas, which transcends the world of things. The objects

corresponding directly to our universal concepts are not things, but ideas. The objective idea is not indwelling in the essences of those things which fall within the scope of our corresponding universal concept, but the thing borrows or derives something from the idea. While the being or existence proper to the world of things is imperfect, unstable, essentially transitory, and therefore not truly deserving of the name of being, which implies permanence, ideas on the contrary are incorruptible, unchangeable, and truly existence. Now, among ideas the noblest and highest is the idea good: it is the supreme and sovereign idea. Whatever things possess goodness have it only because they participate in or draw from, the Sovereign Good. Their goodness then, is something distinct from, and added to, their proper essences or being. What, in Plato's mind, is the nature of this participation we need not explain further than that he makes it consist in this, that the thing is a copy or imitation of the idea. This sovereign idea, the Good, is identical with God. It is not a synthesis of all other ideas but is unique, transcendent, and individual. Whether Plato held that other ideas exist in God as in their proper dwelling-place is not quite clear. Aristotle so interpreted Plato; and it is very likely that Aristotle was better qualified to understand Plato's meaning than were subsequent philosophers who have disputed his interpretation. The Supreme Good imparts to the intellect the power to perceive, and gives intelligibility to the intelligible. It is, therefore, the source of truth. God, the essential and supreme Good, can impart nothing that is not good. This view leads to the inference that the origin of evil lies beyond the control of God. The theory leans, therefore, to dualism, and its influence may be traced through the early Gnostic and Manichean heresies, and, in a minor degree, in the doctrines of the Priscillianists and Albigenses.

Aristotle

Starting from the Platonic definition, good is that which all desire, Aristotle, rejecting the Platonic doctrine of a transcendent world of ideas, holds that the good and being are identical; good is not something added to being, it is being. Everything that is, is good because it is; the quantity, if one may use the word loosely, of being or existence which a thing possesses, is at the same time the stock of goodness. A diminution or an increase of its being is a diminution or increase of its goodness. Being and the good are, then, objectively the same, every being is good, every good is being. Our concepts, being and good differ formally: the first simply denotes existence; the second, existence as a perfection, or the power of contributing to the perfection of a being. It follows from this that evil is not being at all; it is, on the contrary, the privation of being. Again, while being, viewed as the object of tendency, appetite, or will, gives rise to the concept *good*, so, when considered as the proper object of the intellect, it is represented under the concept *true* or *truth*, and it is the beautiful, inasmuch as the knowledge of it is attended by that particular pleasurable emotion which we call aesthetic. As god is the fullness of being, so, therefore, the supreme, infinite Being is also the Supreme Good from which all creatures derive their being and goodness.

Neo-Platonism

The neo-Platonists perpetuated the Platonic theory, mixed with Aristotelean, Judaic, and other oriental ideas. Plotinus introduced the doctrine of a triple hypostasis, i.e. the one, the intelligence, and the universal soul, above the world of changing being, which is multiple. The intelligence is ordained to good; but, incapable of grasping it in its entirety, it breaks it up into parts, which constitute the essences. These essences by becoming united with a material principle constitute things. The Pseudo-Dionysius propagated the Platonic influence in his work "De Nominibus Divinis", the doctrine of which is based on the scriptures. God is supereminently being — "I am who am" — but in Him the good is anterior to being, and the ineffable name of God is above all His other names. The good is more universal than being, for it embraces the material principle which does not possess any being of its own. The bond which unites beings among themselves and to the Supreme Being is love, which has for its object the good. The trend of the Pseudo-Dionysius is away from the dualism which admits a principle of evil, but on the other hand, it inclines towards pantheism.

The Fathers

The Fathers, in general, treated the question of good from the standpoint of hermeneutics rather than from the philosophic. Their chief concern is to affirm that God is the Supreme Good, that He is the creator of all that exists, that creatures derive their goodness from Him, while they are distinct from Him; and that there is no supreme

independent, principle of evil. St. Augustine, however (*De Natura boni*, P.L., XLIII), examines the topic fully and in great detail. Some of his expressions seem tinged with the Platonic notion that good is antecedent to being; but elsewhere he makes the good, and being in God fundamentally identical. Boethius distinguishes a double goodness in things created; first, that which in them is one with their being; second, an accidental goodness added to their nature by God. In God these two elements of good, the essential and the accidental, are but one, since there are no accidents in God.

Scholastic Doctrine

St. Thomas starts from the Aristotelean principle that being and the good are objectively one. Being conceived as desirable is the good. The good differs from the true in this, that, while both are objectively nothing else than being, the good is being considered as the object of appetitive, desire, and will, the true is being a the object of the intellect. God, the Supreme Being and the source of all other being is consequently the Supreme Good, and the goodness of creatures results from the diffusion of His goodness. In a creature, considered as a subject having existence, we distinguish several elements of the goodness which it possesses:

- Its existence or being, which is the ground of all the other elements.
- Its powers, activities, and capacities. These are the complement of the first, and they serve it to pursue and appropriate whatever is requisite for and contributory to sustaining its existence, and developing that existence into the fullness of perfection proper to it.
- Each perfection that is acquired is a further measure of existence for it, hence a good.
- The totality of these various elements, forming its total good subjectively, that is, its entire being in a state of normal perfection according to its mind, is its good complete. This is the sense of the axiom: *omne ens est bonum sibi* (every being is a good unto itself).

The privation of any of its powers or due perfections is an evil for it, as, for instance, blindness, the loss of the power of sight, is an evil for an animal. Hence evil is not something positive and does not exist in itself; as the axiom expresses it, *malum in bono fundatur* (evil has its base in good). Let us pass now to good in the relative sense. Every being has a natural tendency to continue and to develop itself. This tendency brings its activities into play; each power has its proper object, and a conatus pushing it to action. The end to which action is directed is something that is of a nature to contribute, when obtained, to the well-being or perfection of the subject. For this reason it is needed, pursued, desired, and, because of its desirability, is designated good. For example, the plant for its existence and development requires light, air, heat, moisture, nutriment. It has various organs adapted to appropriate these things, which are good for it, and, when by the exercise of these functions it acquires and appropriates them, it reaches its perfection and runs its course in nature. Now if we look into the cosmos, we perceive that the innumerable varieties of being in it are bound together in an indescribably complex system of mutual action and inaction, as they obey the laws of their nature. One class contributes to the other in that orderly relationship which constitutes the harmony of the universe. True — to change the metaphor — with our limited powers of observation we are unable to follow the innumerable threads of this large and varied sweeps to warrant the induction that everything is good for some other thing, that everything has its proper end in the great whole. *Omne ens est bonum alteri*. Since this orderly correlation of things is necessary to them in order that they may obtain from one another the help which they need, it too is good for them. This order is also a good in itself, because it is a created reflection of the unity and harmony of the Divine being and goodness. When we consider the Supreme Being as the efficient cause, conserver, and director of this majestic order, we reach the conception of Divine providence. And then arises the question, what is the end towards which this Providence directs the universe? The end again is the good, i.e. God Himself. Not indeed that, as in the case of creatures He may derive any advantage or perfection from the world, but that it, by participating in His goodness, may manifest it. This manifestation is what we understand by the expression, giving glory to God. God is the Alpha and the Omega of the good; the source from which it flows, the end to which it returns. I am the Beginning and I am the End. It must be remembered that, throughout the treatment of this subject, the term *good*, like all other terms which we predicate of God and of creatures is used not univocally but analogically when referred to God. (See

ANALOGY.)

The defined doctrine on the good, ontologically considered, is formulated by the Vatican Council (Session III, Const. de Fide Catholica, cap.i):

This one, only, true God, of His own goodness and almighty power, not for the increase of His own happiness, not to acquire but to manifest His perfection by the blessings which He bestows on creatures, with absolute freedom of counsel created from the beginning of time both the spiritual and the corporeal creature, to wit, the angelic and the mundane; and afterwards the human creature.

In Canon 4 we read:

If anyone shall say that finite things, both corporeal and spiritual, or at least spiritual, have emanated from the Divine substance; or that the Divine essence, by the manifestation and evolution of itself, becomes all things; or lastly, that God is universal or indefinite being, which by determining itself constitutes the universality of things distinct according to genera species, and individuals, let him be anathema.

II. ETHICAL

The moral good is not a kind, distinct from the good viewed ontologically; it is one form of perfection proper to human life, but, because of its excellence and supreme practical importance, it demands special treatment with reference to its own distinctive character which differentiates it from all other goods and perfections of man. It is again, in Greek philosophy, that we find the principles which have supplied the school with a basis for rational speculations, controlled and supplemented by revelation.

Plato

The supreme good of man is, as we have seen, the idea *good*, identical with God. By union with God man attains his highest subjective good, which is happiness. This assimilation is effected by knowledge and love; the means to achieve it is to preserve in the soul a due harmony throughout its various parts in subordination to the intellect which is the highest faculty. The establishment of this harmony brings man to a participation in the Divine unity; and through this union man attains to happiness, which remains even though he suffers pain and the privation of perishable goods. To regulate our actions harmoniously we stand in need of true knowledge, i.e. wisdom. The highest duty of man, therefore, is to obtain wisdom, which leads to God.

Aristotle

The end of man, his highest subjective good, is happiness or well-being. Happiness is not pleasure; for pleasure is a feeling consequent upon action, while happiness is a state of activity. Happiness consists in perfect action, i.e. the actual exercise by man of his faculties — especially of his highest faculty, the speculative intellect — in perfect correspondence, with the norm which his nature itself prescribes. Action may deviate from this norm either by excess or defect. The golden mean is to be preserved, and in this consists virtue. The various faculties, higher and lower, are regulated by their respective virtues to carry on their activities in due order. Pleasure follows action duly performed, even the highest form of activity, i.e. speculative contemplation of truth; but, as has been noted, happiness consists in the very operation itself. A life of contemplation, however, cannot be enjoyed unless a man possesses enough goods of the lower orders to relieve him from the toils and the cares of life. Hence happiness is beyond the reach of many. It is to be observed therefore that, while both Plato and Aristotle, as well as the Scholastics, hold that happiness is the end of man, their conception of happiness is quite different from the hedonistic idea of happiness as presented in English utilitarianism. For the utilitarian happiness is the sum total of pleasurable feelings, from whatever source they may be derived. On the other hand, in our sense, happiness — *eudaimonia*, *beatitudo* — is a distinct state or condition of consciousness accompanying and dependent on the realization in conduct of one definite good or perfection, the nature of which is objectively fixed and not dependent on our individual preferences. (*See* UTILITARIANISM).

Hedonists

The supreme good of man according to Aristippus is pleasure or the enjoyment of the moment, and pleasure is essentially gentle motion. Pleasure can never be bad, and the primary form of it is bodily pleasure. But, in order to secure the maximum of pleasure, prudent self-control is necessary; and this is virtue. Epicurus held that pleasure is the chief good; but pleasure is rest, not motion; and the highest form of pleasure is freedom from pain and the absence of all desires or needs that we cannot satisfy. Hence an important means towards happiness is the control of our desires, and the extinction of those that we cannot gratify, which is brought about by virtue. (See CYRENAIC SCHOOL OF PHILOSOPHY; HEDONISM, HAPPINESS.)

The Stoics

Everything in the universe is regulated by law. Man's highest good, or happiness, is to conform his conduct to universal law, which is Divine in its origin. To pursue this end is virtue. Virtue is to be cultivated in scorn of consequences, whether pleasurable or painful. The Stoic principle, "duty for duty's sake alone", reappears in Kant, with the modification that the norm of right action is not to be regarded as imposed by a Divine will; its original source is the human mind, or the free spirit itself.

St. Thomas

The radical difference which distinguishes the nobler forms of ancient ethics from Christian ethics is that, whereas the former identifies virtuous life with happiness, that is, with the possession and enjoyment of the highest good, the Christian conception is that a virtuous life, while it is, indeed, the proximate end and good of man, is not, in itself, his ultimate end and supreme good. A life of virtue, the moral good, leads him to the acquisition of an ulterior and ultimate end. Furthermore the happiness, which in an imperfect measure attends the virtuous life, may be accompanied with pain, sorrow, and the privation of terrestrial goods; complete happiness (*beatitudo*) is not to be found in earthly existence, but in the life to come, and will consist in union with God, the Supreme Good.

(A) *The Proximate End and Good (Bonum Morale)*

Like all creatures involved in the cosmic system, man requires and seeks for the conservation and perfection of his being a variety of things and conditions, all of which are, therefore, good for him. A composite being, partly corporeal and partly spiritual, he possesses two sets of tendencies and appetites. Rational, he employs contrivance in order to obtain goods not immediately within his reach. That he may attain the perfection of this highly complex nature, he must observe an order in the pursuit of different kinds of goods, lest the enjoyment of a good of lower value may cause him to lose or forfeit a higher one, in which case the former would be no true benefit to him at all. Besides, with a hierarchy of activities, capacities, and needs, he is a unity, an individual, a person; hence there exists for him a good in which all is other goods focus in harmonious correlation; and they are to be viewed and valued through the medium of this paramount good, not merely in isolated relation to their respective corresponding appetites.

There are, then, several divisions of good;

- corporeal good is whatever contributes to the perfection of the purely animal nature;
- spiritual good is that which perfects the spiritual faculty-knowledge, truth;
- useful good is that which is desired merely as a means to something else; the delectable or pleasurable good is any good regarded merely in the light of the pleasure it produces.

The moral good (*bonum honestum*) consists in the due ordering of free action or conduct according to the norm of reason, the highest faculty, to which it is to conform. This is the good which determines the true valuation of all other goods sought by the activities which make up conduct. Any lower good acquired to the detriment of this one is really but a loss (*bonum apparens*). While all other kinds of good may, in turn, be viewed as means, the moral good is good as an end and is not a mere means to other goods. The pleasurable, though not in the order of things an independent end in itself, may be deliberately chosen as an end of action, or object of pursuit. Now let us apply these distinctions. Good being the object of any tendency, man has as many kinds of goods as he has appetites, needs, and faculties. The normal exercise of his powers and the acquisition thereby of any good is followed by satisfaction, which, when it reaches a certain degree of intensity, is the feeling of pleasure. He may and sometimes does pursue

things not on account of their intrinsic worth, but simply that he may obtain pleasure from them. On the other hand, he may seek a good on account of its intrinsic power to satisfy a need or to contribute to the perfection of his nature in some respect. This may be illustrated in the case of food; for as the old adage has it, "the wise man eats to live, the epicure lives to eat." The faculty which is distinctively human is reason; man lives as a man properly speaking, when all his activities are directed by reason according to the law which reason reads in his very nature. This conformity of conduct to reason dictates the highest natural perfection that his activities can possess; it is what is meant by rectitude of conduct, righteousness, or the moral good. "Those actions", says St. Thomas, "are good which are conformable to reason. Those are bad which are contrary to reason" (I-II:18:5). "The proximate rule of free action is reason, the remote is the eternal law, that is, the Divine Nature" (I-II:21:1, I-II:19:4). The motive impelling us to seek the moral good is not self-interest, but the intrinsic worth of righteousness. Why does a just man pay his debts? Ask him and he will reply, perhaps, in the first instance, "Because it is my duty". But ask him further: "Why do you fulfill this duty?" He will answer: "Because it is *right* to do so". When other goods are pursued in violation of the rational order, action is deprived of its due moral perfection and, therefore, becomes wrong or bad, though it may retain all its other ontological goodness. The good which is the object of such an action, although it retains its particular relative goodness with regard to the want which it serves, is not a good for the whole personality. For example, if, on a day when flesh meat is forbidden, a man dines on roast-beef, the food is just as good physically as it would be on any other day, but this goodness is outweighed, because his action is a violation of reason which dictates that he ought to obey the command of lawful authority.

While the moral good is fixed by the Author of nature, yet, because man is endowed with free will or the power of electing which good he shall make the goal of action, he can, if he pleases, ignore the dictates of right reason and seek his other goods in a disorderly manner. He may pursue pleasure, riches, fame, or any other desirable end, though his conscience — that is, his reason — tells him that the means which he takes to satisfy his desire is wrong. He thereby frustrates his rational nature and deprives himself of his highest perfection. He cannot change the law of things, and this privation of his highest good is the immediate essential punishment incurred by his violation of the moral law. Another punishment is that the loss is attended, generally speaking, by that peculiar painful feeling called remorse; but this effect may cease to be perceived when the moral impulses of reason have been habitually disregarded.

In order that an action may possess in an essential degree — no action is absolutely perfect — its moral perfection, it must be in conformity with the law in three respects:

- The action, considered under the character by which it ranks as an element of conduct, must be good. The physical act of giving another person money may be either an act of justice, when one pays a debt, or it may be an act of mercy or benevolence, as it is if one give the money to relieve distress. Both, of these actions possess the fundamental element of goodness (*bonum ex objecto*).
- The motive, if there is a motive beyond the immediate object of the act, must also be good. If one pays a man some money that one owes him with the purpose, indeed, of paying one's debts, but also with the ulterior purpose of enabling him to carry out a plot to murder one's enemy, the end is bad, and the action is thereby vitiated. The end which is the motive must also be good (*bonum ex fine*). Thus, an action, otherwise good, is spoiled if directed to an immoral end; conversely, however, an action which in its fundamental character is bad is not rendered good by directing it to a good end. The end does not justify the means.
- The circumstances under which the action is performed should be in entire conformity with reason, otherwise it lacks something of moral completeness, though it may not be thereby rendered totally immoral. We frequently say that something which a person has done was right enough in itself, but he did not do it in the proper place or season.

This triple goodness is expressed in the axiom: *bonum ex integra causa, malum ex quocumque defectu* ("An action is good when good in every respect; it is wrong when wrong in any respect"). (B) *The Ultimate Good — God — Beatitude*

The perfection of life, then, is to realize the moral good. But now arises the question: "Is life its own end?" Or, in other words: "What is the ultimate end appointed for man?" To answer this question we must consider the good first under the aspect of end. We consider the good first under the aspect of end. "We not alone act", says St. Thomas, "for an immediate end, but all our actions converge towards an ultimate end or good, otherwise the entire series would be aimless." The test by which we may determine whether any object of pursuit is the ultimate end is: "Does it satisfy all desire?" If it does not, it is not adequate to complete man's perfection and establish him in the possession of his highest good and consequent happiness. Here St. Thomas, following St. Augustine, examines the various objects of human desire — pleasure, riches, power, fame, etc. — and rejects them all as inadequate. What then is the highest good, the ultimate end? St. Thomas appeals to Revelation which teaches that in life to come the righteous shall possess and enjoy God himself in endless fruition. The argument is summed up in the well-known words of St. Augustine: "Thou has made us, O Lord, for Thyself, and our hearts are restless till they rest in Thee". The moral condition necessary to this future consummation is that our wills be here conformed to the Divine will as expressed in the moral law and in His revealed positive law. Thus the attainment of the proximate good in this life leads to the possession of the Supreme Good in the next. Another condition indispensable is that our actions be vivified by Divine grace (see GRACE). What precisely will be the act by which the soul will apprehend the Sovereign Good is a disputed question among theologians. The Thomist theory is that it will be an act of the intellect, while the Scotist opinion is that it will be an act of the will. However this may be, one thing is dogmatically certain: the soul in this assimilation shall not lose its selfhood, nor be absorbed according to the pantheistic sense in the Divine Substance.

A word or two may be added upon a point which owing to the prevalence of kantian ideas is of actual importance. As we have seen, the moral good and the supreme good are ends in themselves; they are not means, nor are they to be pursued merely as means to pleasure or agreeable feeling. But may we make the agreeable any part of our motive? Kant answers in the negative; for to allow this to enter into our motive is to vitiate the only moral motive, "right for right's sake," by self interest. This theory does not pay due regard to the order of things. The pleasurable feeling attendant upon action, in the order of nature, established by God, served as a motive to action, and its function is to guarantee that actions necessary welfare shall not be neglected. Why, then, should it be unlawful to aim at an end which God has attached to the good? Similarly as the attainment of our supreme good will be the cause of everlasting happiness, we may reasonably make this accompanying end the motive of our action, provided that we do not make it the sole or predominant motive.

In conclusion, we may now state in a word the central idea of our doctrine. God as Infinite Being is Infinite Good; creatures are good because they derive their measure of being from Him. This participation manifests His goodness, or glorifies God, which is the end for which he created man. The rational creature is destined to be united to God as the Supreme End and Good in a special manner. In order that he may attain to this consummation, it is necessary that in this life, by conforming his conduct to conscience, the interpreter of the moral law, he realizes in himself the righteousness which is the true perfection of his nature. Thus God is the Supreme Good, as principle and as end. "I am the beginning and I am the end."

St. Thomas, *S. Theol.*, I, QQ. v, vi, xliv, xlvii, lxxv; I-II, v, xvii-xx, xciv; IDEM, *Summa Contra Gentiles*, tr. RICKABY, *God and His Creatures* (London, 1905), II, xxiii; III, i-xi lxxxix, cxvi; ST. AUGUSTINE, *De Natura Boni*; IDEM, *De Doctrina Christiana*; IDEM, *De Civitate Dei*; PLATO, *Republic*, IV-X; IDEM, *Phaero*, 64 sqq.; IDEM, *Theatetus*; ARISTOTLE, *Metaphysics*, I, II, IV, VI; IDEM, *Nicomach. Ethics*, I, i-iv; IX; X; BOUQUILLON, *Theologia Fundamental*, lib. I; lib. III, tract. i; lib. IV; all textbooks of Scholastic philosophy—good is treated in ontology and in ethics; RICKABY, *Moral Philosophy* (London, 1901); MIVART, *On Truth*, sect. iii, iv (London, 1889); TURNER, *History of Philosophy* (Boston and London, 1903), passim; JANET AND SEAILLES, *History of the Problems of Philosophy*, ed. JONES (London and New York, 1902), II, i, ii; FARGES, *La liberte et le Devoir*, pt. II, iii; MCDONALD, *The principles of Moral Science*, bk. I, chs i-vi, xl; HARPER, *The Metaphysic of the School* (London, 1884), vol. I, bk. II, ch. iv.

JAMES J FOX

Nicene and Post-Nicene Fathers: Series I/Volume IV/Manichaeian Controversy/Concerning the Nature of Good/Chapter 1

←Preface **Nicene and Post-Nicene Fathers: Series I/Volume IV/Manichaeian Controversy/Concerning the Nature of Good** Chapter 2→
Good
Philip Schaff et al.
Chapter 1

Chapter 1.—God the Highest and Unchangeable Good, from Whom are All Other Good Things, Spiritual and Corporeal.

The highest good, than which there is no higher, is God, and consequently He is unchangeable good, hence truly eternal and truly immortal. All other good things are only from Him, not of Him. For what is of Him, is Himself. And consequently if He alone is unchangeable, all things that He has made, because He has made them out of nothing, are changeable. For He is so omnipotent, that even out of nothing, that is out of what is absolutely non-existent, He is able to make good things both great and small, both celestial and terrestrial, both spiritual and corporeal. But because He is also just, He has not put those things that He has made out of nothing on an equality with that which He begat out of Himself. Because, therefore, no good things whether great or small, through whatever gradations of things, can exist except from God; but since every nature, so far as it is nature, is good, it follows that no nature can exist save from the most high and true God: because all things even not in the highest degree good, but related to the highest good, and again, because all good things, even those of most recent origin, which are far from the highest good, can have their existence only from the highest good. Therefore every spirit, though subject to change, and every corporeal entity, is from God, and all this, having been made, is nature. For every nature is either spirit or body. Unchangeable spirit is God, changeable spirit, having been made, is nature, but is better than body; but body is not spirit, unless when the wind, because it is invisible to us and yet its power is felt as something not inconsiderable, is in a certain sense called spirit.

Beyond Good and Evil/Chapter I

←Preface **Beyond Good and Evil** by *Friedrich*

Chapter II.→

Nietzsche

Chapter I. On the Prejudices of Philosophers

1. The Will to Truth, which is to tempt us to many a hazardous enterprise, the famous Truthfulness of which all philosophers have hitherto spoken with respect, what questions has this Will to Truth not laid before us! What strange, perplexing, questionable questions! It is already a long story; yet it seems as if it were hardly commenced. Is it any wonder if we at last grow distrustful, lose patience, and turn impatiently away? That this Sphinx teaches us at last to ask questions ourselves? WHO is it really that puts questions to us here? WHAT really is this "Will to Truth" in us? In fact we made a long halt at the question as to the origin of this Will--until at last we came to an absolute standstill before a yet more fundamental question. We inquired about the VALUE of this Will. Granted that we want the truth: WHY NOT RATHER untruth? And uncertainty? Even ignorance? The problem of the value of truth presented itself before us--or was it we who presented ourselves before the problem? Which of us is the Oedipus here? Which the Sphinx? It would seem to be a rendezvous of questions and notes of interrogation. And could it be believed that it at last seems to us as if the problem had never been propounded before, as if we were the first to discern it, get a sight of it, and RISK RAISING it? For there is risk in raising it, perhaps there is no greater risk.

2. "HOW COULD anything originate out of its opposite? For example, truth out of error? or the Will to Truth out of the will to deception? or the generous deed out of selfishness? or the pure sun-bright vision of the wise man out of covetousness? Such genesis is impossible; whoever dreams of it is a fool, nay, worse than a fool; things of the highest value must have a different origin, an origin of THEIR own--in this transitory, seductive, illusory, paltry world, in this turmoil of delusion and cupidity, they cannot have their source. But rather in the lap of Being, in the intransitory, in the concealed God, in the "Thing-in-itself-- THERE must be their source, and nowhere else!"--This mode of reasoning discloses the typical prejudice by which metaphysicians of all times can be recognized, this mode of valuation is at the back of all their logical procedure; through this "belief" of theirs, they exert themselves for their "knowledge," for something that is in the end solemnly christened "the Truth." The fundamental belief of metaphysicians is THE BELIEF IN ANTITHESES OF VALUES. It never occurred even to the wariest of them to doubt here on the very threshold (where doubt, however, was most necessary); though they had made a solemn vow, "DE OMNIBUS DUBITANDUM." For it may be doubted, firstly, whether antitheses exist at all; and secondly, whether the popular valuations and antitheses of value upon which metaphysicians have set their seal, are not perhaps merely superficial estimates, merely provisional perspectives, besides being probably made from some corner, perhaps from below--"frog perspectives," as it were, to borrow an expression current among painters. In spite of all the value which may belong to the true, the positive, and the unselfish, it might be possible that a higher and more fundamental value for life generally should be assigned to pretence, to the will to delusion, to selfishness, and cupidity. It might even be possible that WHAT constitutes the value of those good and respected things, consists precisely in their being insidiously related, knotted, and crocheted to these evil and apparently opposed things--perhaps even in being essentially identical with them. Perhaps! But who wishes to concern himself with such dangerous "Perhapses"! For that investigation one must await the advent of a new order of philosophers, such as will have other tastes and inclinations, the reverse of those hitherto prevalent--philosophers of the dangerous "Perhaps" in every sense of the term. And to speak in all seriousness, I see such new philosophers beginning to appear.

3. Having kept a sharp eye on philosophers, and having read between their lines long enough, I now say to myself that the greater part of conscious thinking must be counted among the Instinctive functions, and it is so even in the case of philosophical thinking; one has here to learn anew, as one learned anew about heredity and "innateness." As little as the act of birth comes into consideration in the whole process and procedure of heredity, just as little is "being-conscious" OPPOSED to the instinctive in any decisive sense; the greater part of the conscious thinking of a

philosopher is secretly influenced by his instincts, and forced into definite channels. And behind all logic and its seeming sovereignty of movement, there are valuations, or to speak more plainly, physiological demands, for the maintenance of a definite mode of life. For example, that the certain is worth more than the uncertain, that illusion is less valuable than "truth" such valuations, in spite of their regulative importance for US, might notwithstanding be only superficial valuations, special kinds of mairerie, such as may be necessary for the maintenance of beings such as ourselves. Supposing, in effect, that man is not just the "measure of things."

4. The falseness of an opinion is not for us any objection to it: it is here, perhaps, that our new language sounds most strangely. The question is, how far an opinion is life-furthering, life-preserving, species-preserving, perhaps species-rearing, and we are fundamentally inclined to maintain that the falsest opinions (to which the synthetic judgments a priori belong), are the most indispensable to us, that without a recognition of logical fictions, without a comparison of reality with the purely IMAGINED world of the absolute and immutable, without a constant counterfeiting of the world by means of numbers, man could not live--that the renunciation of false opinions would be a renunciation of life, a negation of life. TO RECOGNISE UNTRUTH AS A CONDITION OF LIFE; that is certainly to impugn the traditional ideas of value in a dangerous manner, and a philosophy which ventures to do so, has thereby alone placed itself beyond good and evil.

5. That which causes philosophers to be regarded half-distrustfully and half-mockingly, is not the oft-repeated discovery how innocent they are--how often and easily they make mistakes and lose their way, in short, how childish and childlike they are,--but that there is not enough honest dealing with them, whereas they all raise a loud and virtuous outcry when the problem of truthfulness is even hinted at in the remotest manner. They all pose as though their real opinions had been discovered and attained through the self-evolving of a cold, pure, divinely indifferent dialectic (in contrast to all sorts of mystics, who, fairer and foolisher, talk of "inspiration"), whereas, in fact, a prejudiced proposition, idea, or "suggestion," which is generally their heart's desire abstracted and refined, is defended by them with arguments sought out after the event. They are all advocates who do not wish to be regarded as such, generally astute defenders, also, of their prejudices, which they dub "truths,"-- and VERY far from having the conscience which bravely admits this to itself, very far from having the good taste of the courage which goes so far as to let this be understood, perhaps to warn friend or foe, or in cheerful confidence and self-ridicule. The spectacle of the Tartuffery of old Kant, equally stiff and decent, with which he entices us into the dialectic by-ways that lead (more correctly mislead) to his "categorical imperative"-- makes us fastidious ones smile, we who find no small amusement in spying out the subtle tricks of old moralists and ethical preachers. Or, still more so, the hocus-pocus in mathematical form, by means of which Spinoza has, as it were, clad his philosophy in mail and mask--in fact, the "love of HIS wisdom," to translate the term fairly and squarely--in order thereby to strike terror at once into the heart of the assailant who should dare to cast a glance on that invincible maiden, that Pallas Athene:--how much of personal timidity and vulnerability does this masquerade of a sickly recluse betray!

6. It has gradually become clear to me what every great philosophy up till now has consisted of--namely, the confession of its originator, and a species of involuntary and unconscious auto-biography; and moreover that the moral (or immoral) purpose in every philosophy has constituted the true vital germ out of which the entire plant has always grown. Indeed, to understand how the abstrusest metaphysical assertions of a philosopher have been arrived at, it is always well (and wise) to first ask oneself: "What morality do they (or does he) aim at?" Accordingly, I do not believe that an "impulse to knowledge" is the father of philosophy; but that another impulse, here as elsewhere, has only made use of knowledge (and mistaken knowledge!) as an instrument. But whoever considers the fundamental impulses of man with a view to determining how far they may have here acted as INSPIRING GENII (or as demons and cobolds), will find that they have all practiced philosophy at one time or another, and that each one of them would have been only too glad to look upon itself as the ultimate end of existence and the legitimate LORD over all the other impulses. For every impulse is imperious, and as SUCH, attempts to philosophize. To be sure, in the case of scholars, in the case of really scientific men, it may be otherwise--"better," if you will; there there may really be such a thing as an "impulse to knowledge," some kind of small, independent clock-work, which, when well wound up, works away industriously to that end, WITHOUT the rest of the scholarly impulses taking any

material part therein. The actual "interests" of the scholar, therefore, are generally in quite another direction--in the family, perhaps, or in money-making, or in politics; it is, in fact, almost indifferent at what point of research his little machine is placed, and whether the hopeful young worker becomes a good philologist, a mushroom specialist, or a chemist; he is not CHARACTERISED by becoming this or that. In the philosopher, on the contrary, there is absolutely nothing impersonal; and above all, his morality furnishes a decided and decisive testimony as to WHO HE IS,--that is to say, in what order the deepest impulses of his nature stand to each other.

7. How malicious philosophers can be! I know of nothing more stinging than the joke Epicurus took the liberty of making on Plato and the Platonists; he called them Dionysiokolakes. In its original sense, and on the face of it, the word signifies "Flatterers of Dionysius"--consequently, tyrants' accessories and lick-spittles; besides this, however, it is as much as to say, "They are all ACTORS, there is nothing genuine about them" (for Dionysiokolax was a popular name for an actor). And the latter is really the malignant reproach that Epicurus cast upon Plato: he was annoyed by the grandiose manner, the *mise en scene* style of which Plato and his scholars were masters--of which Epicurus was not a master! He, the old school-teacher of Samos, who sat concealed in his little garden at Athens, and wrote three hundred books, perhaps out of rage and ambitious envy of Plato, who knows! Greece took a hundred years to find out who the garden-god Epicurus really was. Did she ever find out?

8. There is a point in every philosophy at which the "conviction" of the philosopher appears on the scene; or, to put it in the words of an ancient mystery:

Adventavit asinus, Pulcher et fortissimus.

9. You desire to LIVE "according to Nature"? Oh, you noble Stoics, what fraud of words! Imagine to yourselves a being like Nature, boundlessly extravagant, boundlessly indifferent, without purpose or consideration, without pity or justice, at once fruitful and barren and uncertain: imagine to yourselves INDIFFERENCE as a power--how COULD you live in accordance with such indifference? To live--is not that just endeavouring to be otherwise than this Nature? Is not living valuing, preferring, being unjust, being limited, endeavouring to be different? And granted that your imperative, "living according to Nature," means actually the same as "living according to life"--how could you do DIFFERENTLY? Why should you make a principle out of what you yourselves are, and must be? In reality, however, it is quite otherwise with you: while you pretend to read with rapture the canon of your law in Nature, you want something quite the contrary, you extraordinary stage-players and self-deluders! In your pride you wish to dictate your morals and ideals to Nature, to Nature herself, and to incorporate them therein; you insist that it shall be Nature "according to the Stoa," and would like everything to be made after your own image, as a vast, eternal glorification and generalism of Stoicism! With all your love for truth, you have forced yourselves so long, so persistently, and with such hypnotic rigidity to see Nature FALSELY, that is to say, Stoically, that you are no longer able to see it otherwise-- and to crown all, some unfathomable superciliousness gives you the Bedlamite hope that BECAUSE you are able to tyrannize over yourselves--Stoicism is self-tyranny--Nature will also allow herself to be tyrannized over: is not the Stoic a PART of Nature? . . . But this is an old and everlasting story: what happened in old times with the Stoics still happens today, as soon as ever a philosophy begins to believe in itself. It always creates the world in its own image; it cannot do otherwise; philosophy is this tyrannical impulse itself, the most spiritual Will to Power, the will to "creation of the world," the will to the *causa prima*.

10. The eagerness and subtlety, I should even say craftiness, with which the problem of "the real and the apparent world" is dealt with at present throughout Europe, furnishes food for thought and attention; and he who hears only a "Will to Truth" in the background, and nothing else, cannot certainly boast of the sharpest ears. In rare and isolated cases, it may really have happened that such a Will to Truth--a certain extravagant and adventurous pluck, a metaphysician's ambition of the forlorn hope--has participated therein: that which in the end always prefers a handful of "certainty" to a whole cartload of beautiful possibilities; there may even be puritanical fanatics of conscience, who prefer to put their last trust in a sure nothing, rather than in an uncertain something. But that is Nihilism, and the sign of a despairing, mortally wearied soul, notwithstanding the courageous bearing such a virtue may display. It seems, however, to be otherwise with stronger and livelier thinkers who are still eager for life. In that they side AGAINST

appearance, and speak superciliously of "perspective," in that they rank the credibility of their own bodies about as low as the credibility of the ocular evidence that "the earth stands still," and thus, apparently, allowing with complacency their securest possession to escape (for what does one at present believe in more firmly than in one's body?),--who knows if they are not really trying to win back something which was formerly an even securer possession, something of the old domain of the faith of former times, perhaps the "immortal soul," perhaps "the old God," in short, ideas by which they could live better, that is to say, more vigorously and more joyously, than by "modern ideas"? There is DISTRUST of these modern ideas in this mode of looking at things, a disbelief in all that has been constructed yesterday and today; there is perhaps some slight admixture of satiety and scorn, which can no longer endure the BRIC-A-BRAC of ideas of the most varied origin, such as so-called Positivism at present throws on the market; a disgust of the more refined taste at the village-fair motley and patchiness of all these reality-philosophasters, in whom there is nothing either new or true, except this motley. Therein it seems to me that we should agree with those skeptical anti-realists and knowledge-microscopists of the present day; their instinct, which repels them from MODERN reality, is unrefuted . . . what do their retrograde by-paths concern us! The main thing about them is NOT that they wish to go "back," but that they wish to get AWAY therefrom. A little MORE strength, swing, courage, and artistic power, and they would be OFF--and not back!

11. It seems to me that there is everywhere an attempt at present to divert attention from the actual influence which Kant exercised on German philosophy, and especially to ignore prudently the value which he set upon himself. Kant was first and foremost proud of his Table of Categories; with it in his hand he said: "This is the most difficult thing that could ever be undertaken on behalf of metaphysics." Let us only understand this "could be"! He was proud of having DISCOVERED a new faculty in man, the faculty of synthetic judgment a priori. Granting that he deceived himself in this matter; the development and rapid flourishing of German philosophy depended nevertheless on his pride, and on the eager rivalry of the younger generation to discover if possible something--at all events "new faculties"--of which to be still prouder!--But let us reflect for a moment--it is high time to do so. "How are synthetic judgments a priori POSSIBLE?" Kant asks himself--and what is really his answer? "BY MEANS OF A MEANS (faculty)"--but unfortunately not in five words, but so circumstantially, imposingly, and with such display of German profundity and verbal flourishes, that one altogether loses sight of the comical niaiserie allemande involved in such an answer. People were beside themselves with delight over this new faculty, and the jubilation reached its climax when Kant further discovered a moral faculty in man--for at that time Germans were still moral, not yet dabbling in the "Politics of hard fact." Then came the honeymoon of German philosophy. All the young theologians of the Tubingen institution went immediately into the groves--all seeking for "faculties." And what did they not find--in that innocent, rich, and still youthful period of the German spirit, to which Romanticism, the malicious fairy, piped and sang, when one could not yet distinguish between "finding" and "inventing"! Above all a faculty for the "transcendental"; Schelling christened it, intellectual intuition, and thereby gratified the most earnest longings of the naturally pious-inclined Germans. One can do no greater wrong to the whole of this exuberant and eccentric movement (which was really youthfulness, notwithstanding that it disguised itself so boldly, in hoary and senile conceptions), than to take it seriously, or even treat it with moral indignation. Enough, however--the world grew older, and the dream vanished. A time came when people rubbed their foreheads, and they still rub them today. People had been dreaming, and first and foremost--old Kant. "By means of a means (faculty)"--he had said, or at least meant to say. But, is that--an answer? An explanation? Or is it not rather merely a repetition of the question? How does opium induce sleep? "By means of a means (faculty), "namely the virtus dormitiva, replies the doctor in Moliere,

Quia est in eo virtus dormitiva,
Cujus est natura sensus assoupire.

But such replies belong to the realm of comedy, and it is high time to replace the Kantian question, "How are synthetic judgments a PRIORI possible?" by another question, "Why is belief in such judgments necessary?"--in effect, it is high time that we should understand that such judgments must be believed to be true, for the sake of the

preservation of creatures like ourselves; though they still might naturally be false judgments! Or, more plainly spoken, and roughly and readily--synthetic judgments a priori should not "be possible" at all; we have no right to them; in our mouths they are nothing but false judgments. Only, of course, the belief in their truth is necessary, as plausible belief and ocular evidence belonging to the perspective view of life. And finally, to call to mind the enormous influence which "German philosophy"--I hope you understand its right to inverted commas (goosefeet)?--has exercised throughout the whole of Europe, there is no doubt that a certain VIRTUS DORMITIVA had a share in it; thanks to German philosophy, it was a delight to the noble idlers, the virtuous, the mystics, the artiste, the three-fourths Christians, and the political obscurantists of all nations, to find an antidote to the still overwhelming sensualism which overflowed from the last century into this, in short--"sensus assoupire." . . .

12. As regards materialistic atomism, it is one of the best- refuted theories that have been advanced, and in Europe there is now perhaps no one in the learned world so unscholarly as to attach serious signification to it, except for convenient everyday use (as an abbreviation of the means of expression)-- thanks chiefly to the Pole Boscovich: he and the Pole Copernicus have hitherto been the greatest and most successful opponents of ocular evidence. For while Copernicus has persuaded us to believe, contrary to all the senses, that the earth does NOT stand fast, Boscovich has taught us to abjure the belief in the last thing that "stood fast" of the earth--the belief in "substance," in "matter," in the earth-residuum, and particle- atom: it is the greatest triumph over the senses that has hitherto been gained on earth. One must, however, go still further, and also declare war, relentless war to the knife, against the "atomistic requirements" which still lead a dangerous after-life in places where no one suspects them, like the more celebrated "metaphysical requirements": one must also above all give the finishing stroke to that other and more portentous atomism which Christianity has taught best and longest, the SOUL- ATOMISM. Let it be permitted to designate by this expression the belief which regards the soul as something indestructible, eternal, indivisible, as a monad, as an atomon: this belief ought to be expelled from science! Between ourselves, it is not at all necessary to get rid of "the soul" thereby, and thus renounce one of the oldest and most venerated hypotheses--as happens frequently to the clumsiness of naturalists, who can hardly touch on the soul without immediately losing it. But the way is open for new acceptations and refinements of the soul-hypothesis; and such conceptions as "mortal soul," and "soul of subjective multiplicity," and "soul as social structure of the instincts and passions," want henceforth to have legitimate rights in science. In that the NEW psychologist is about to put an end to the superstitions which have hitherto flourished with almost tropical luxuriance around the idea of the soul, he is really, as it were, thrusting himself into a new desert and a new distrust--it is possible that the older psychologists had a merrier and more comfortable time of it; eventually, however, he finds that precisely thereby he is also condemned to INVENT--and, who knows? perhaps to DISCOVER the new.

13. Psychologists should bethink themselves before putting down the instinct of self-preservation as the cardinal instinct of an organic being. A living thing seeks above all to DISCHARGE its strength--life itself is WILL TO POWER; self-preservation is only one of the indirect and most frequent RESULTS thereof. In short, here, as everywhere else, let us beware of SUPERFLUOUS teleological principles!--one of which is the instinct of self-preservation (we owe it to Spinoza's inconsistency). It is thus, in effect, that method ordains, which must be essentially economy of principles.

14. It is perhaps just dawning on five or six minds that natural philosophy is only a world-exposition and world-arrangement (according to us, if I may say so!) and NOT a world-explanation; but in so far as it is based on belief in the senses, it is regarded as more, and for a long time to come must be regarded as more--namely, as an explanation. It has eyes and fingers of its own, it has ocular evidence and palpableness of its own: this operates fascinatingly, persuasively, and CONVINCINGLY upon an age with fundamentally plebeian tastes--in fact, it follows instinctively the canon of truth of eternal popular sensualism. What is clear, what is "explained"? Only that which can be seen and felt--one must pursue every problem thus far. Obversely, however, the charm of the Platonic mode of thought, which was an ARISTOCRATIC mode, consisted precisely in RESISTANCE to obvious sense-evidence--perhaps among men who enjoyed even stronger and more fastidious senses than our contemporaries, but who knew how to find a higher triumph in remaining masters of them: and this by means of

pale, cold, grey conceptional networks which they threw over the motley whirl of the senses--the mob of the senses, as Plato said. In this overcoming of the world, and interpreting of the world in the manner of Plato, there was an ENJOYMENT different from that which the physicists of today offer us--and likewise the Darwinists and anti-teleologists among the physiological workers, with their principle of the "smallest possible effort," and the greatest possible blunder. "Where there is nothing more to see or to grasp, there is also nothing more for men to do"--that is certainly an imperative different from the Platonic one, but it may notwithstanding be the right imperative for a hardy, laborious race of machinists and bridge-builders of the future, who have nothing but ROUGH work to perform.

15. To study physiology with a clear conscience, one must insist on the fact that the sense-organs are not phenomena in the sense of the idealistic philosophy; as such they certainly could not be causes! Sensualism, therefore, at least as regulative hypothesis, if not as heuristic principle. What? And others say even that the external world is the work of our organs? But then our body, as a part of this external world, would be the work of our organs! But then our organs themselves would be the work of our organs! It seems to me that this is a complete REDUCTIO AD ABSURDUM, if the conception CAUSA SUI is something fundamentally absurd. Consequently, the external world is NOT the work of our organs--?

16. There are still harmless self-observers who believe that there are "immediate certainties"; for instance, "I think," or as the superstition of Schopenhauer puts it, "I will"; as though cognition here got hold of its object purely and simply as "the thing in itself," without any falsification taking place either on the part of the subject or the object. I would repeat it, however, a hundred times, that "immediate certainty," as well as "absolute knowledge" and the "thing in itself," involve a CONTRADICTION IN ADJECTO; we really ought to free ourselves from the misleading significance of words! The people on their part may think that cognition is knowing all about things, but the philosopher must say to himself: "When I analyze the process that is expressed in the sentence, 'I think,' I find a whole series of daring assertions, the argumentative proof of which would be difficult, perhaps impossible: for instance, that it is I who think, that there must necessarily be something that thinks, that thinking is an activity and operation on the part of a being who is thought of as a cause, that there is an 'ego,' and finally, that it is already determined what is to be designated by thinking--that I KNOW what thinking is. For if I had not already decided within myself what it is, by what standard could I determine whether that which is just happening is not perhaps 'willing' or 'feeling'? In short, the assertion 'I think,' assumes that I COMPARE my state at the present moment with other states of myself which I know, in order to determine what it is; on account of this retrospective connection with further 'knowledge,' it has, at any rate, no immediate certainty for me."--In place of the "immediate certainty" in which the people may believe in the special case, the philosopher thus finds a series of metaphysical questions presented to him, veritable conscience questions of the intellect, to wit: "Whence did I get the notion of 'thinking'? Why do I believe in cause and effect? What gives me the right to speak of an 'ego,' and even of an 'ego' as cause, and finally of an 'ego' as cause of thought?" He who ventures to answer these metaphysical questions at once by an appeal to a sort of INTUITIVE perception, like the person who says, "I think, and know that this, at least, is true, actual, and certain"--will encounter a smile and two notes of interrogation in a philosopher nowadays. "Sir," the philosopher will perhaps give him to understand, "it is improbable that you are not mistaken, but why should it be the truth?"

17. With regard to the superstitions of logicians, I shall never tire of emphasizing a small, terse fact, which is unwillingly recognized by these credulous minds--namely, that a thought comes when "it" wishes, and not when "I" wish; so that it is a PERVERSION of the facts of the case to say that the subject "I" is the condition of the predicate "think." ONE thinks; but that this "one" is precisely the famous old "ego," is, to put it mildly, only a supposition, an assertion, and assuredly not an "immediate certainty." After all, one has even gone too far with this "one thinks"--even the "one" contains an INTERPRETATION of the process, and does not belong to the process itself. One infers here according to the usual grammatical formula--"To think is an activity; every activity requires an agency that is active; consequently" . . . It was pretty much on the same lines that the older atomism sought, besides the operating "power," the material particle wherein it resides and out of which it operates--the atom. More rigorous

minds, however, learnt at last to get along without this "earth-residuum," and perhaps some day we shall accustom ourselves, even from the logician's point of view, to get along without the little "one" (to which the worthy old "ego" has refined itself).

18. It is certainly not the least charm of a theory that it is refutable; it is precisely thereby that it attracts the more subtle minds. It seems that the hundred-times-refuted theory of the "free will" owes its persistence to this charm alone; some one is always appearing who feels himself strong enough to refute it.

19. Philosophers are accustomed to speak of the will as though it were the best-known thing in the world; indeed, Schopenhauer has given us to understand that the will alone is really known to us, absolutely and completely known, without deduction or addition. But it again and again seems to me that in this case Schopenhauer also only did what philosophers are in the habit of doing—he seems to have adopted a POPULAR PREJUDICE and exaggerated it. Willing—seems to me to be above all something COMPLICATED, something that is a unity only in name—and it is precisely in a name that popular prejudice lurks, which has got the mastery over the inadequate precautions of philosophers in all ages. So let us for once be more cautious, let us be "unphilosophical": let us say that in all willing there is firstly a plurality of sensations, namely, the sensation of the condition "AWAY FROM WHICH we go," the sensation of the condition "TOWARDS WHICH we go," the sensation of this "FROM" and "TOWARDS" itself, and then besides, an accompanying muscular sensation, which, even without our putting in motion "arms and legs," commences its action by force of habit, directly we "will" anything. Therefore, just as sensations (and indeed many kinds of sensations) are to be recognized as ingredients of the will, so, in the second place, thinking is also to be recognized; in every act of the will there is a ruling thought;—and let us not imagine it possible to sever this thought from the "willing," as if the will would then remain over! In the third place, the will is not only a complex of sensation and thinking, but it is above all an EMOTION, and in fact the emotion of the command. That which is termed "freedom of the will" is essentially the emotion of supremacy in respect to him who must obey: "I am free, 'he' must obey"—this consciousness is inherent in every will; and equally so the straining of the attention, the straight look which fixes itself exclusively on one thing, the unconditional judgment that "this and nothing else is necessary now," the inward certainty that obedience will be rendered—and whatever else pertains to the position of the commander. A man who WILLS commands something within himself which renders obedience, or which he believes renders obedience. But now let us notice what is the strangest thing about the will,—this affair so extremely complex, for which the people have only one name. Inasmuch as in the given circumstances we are at the same time the commanding AND the obeying parties, and as the obeying party we know the sensations of constraint, impulsion, pressure, resistance, and motion, which usually commence immediately after the act of will; inasmuch as, on the other hand, we are accustomed to disregard this duality, and to deceive ourselves about it by means of the synthetic term "I": a whole series of erroneous conclusions, and consequently of false judgments about the will itself, has become attached to the act of willing—to such a degree that he who wills believes firmly that willing SUFFICES for action. Since in the majority of cases there has only been exercise of will when the effect of the command—consequently obedience, and therefore action—was to be EXPECTED, the APPEARANCE has translated itself into the sentiment, as if there were a NECESSITY OF EFFECT; in a word, he who wills believes with a fair amount of certainty that will and action are somehow one; he ascribes the success, the carrying out of the willing, to the will itself, and thereby enjoys an increase of the sensation of power which accompanies all success. "Freedom of Will"—that is the expression for the complex state of delight of the person exercising volition, who commands and at the same time identifies himself with the executor of the order— who, as such, enjoys also the triumph over obstacles, but thinks within himself that it was really his own will that overcame them. In this way the person exercising volition adds the feelings of delight of his successful executive instruments, the useful "underwills" or under-souls—indeed, our body is but a social structure composed of many souls—to his feelings of delight as commander. L'EFFET C'EST MOI. what happens here is what happens in every well-constructed and happy commonwealth, namely, that the governing class identifies itself with the successes of the commonwealth. In all willing it is absolutely a question of commanding and obeying, on the basis, as already said, of a social structure composed of many "souls", on which account a philosopher should claim the right to include willing— as—such within

the sphere of morals--regarded as the doctrine of the relations of supremacy under which the phenomenon of "life" manifests itself.

20. That the separate philosophical ideas are not anything optional or autonomously evolving, but grow up in connection and relationship with each other, that, however suddenly and arbitrarily they seem to appear in the history of thought, they nevertheless belong just as much to a system as the collective members of the fauna of a Continent--is betrayed in the end by the circumstance: how unfailingly the most diverse philosophers always fill in again a definite fundamental scheme of POSSIBLE philosophies. Under an invisible spell, they always revolve once more in the same orbit, however independent of each other they may feel themselves with their critical or systematic wills, something within them leads them, something impels them in definite order the one after the other--to wit, the innate methodology and relationship of their ideas. Their thinking is, in fact, far less a discovery than a re-recognizing, a remembering, a return and a home-coming to a far-off, ancient common-household of the soul, out of which those ideas formerly grew: philosophizing is so far a kind of atavism of the highest order. The wonderful family resemblance of all Indian, Greek, and German philosophizing is easily enough explained. In fact, where there is affinity of language, owing to the common philosophy of grammar--I mean owing to the unconscious domination and guidance of similar grammatical functions--it cannot but be that everything is prepared at the outset for a similar development and succession of philosophical systems, just as the way seems barred against certain other possibilities of world- interpretation. It is highly probable that philosophers within the domain of the Ural-Altai languages (where the conception of the subject is least developed) look otherwise "into the world," and will be found on paths of thought different from those of the Indo-Germans and Mussulmans, the spell of certain grammatical functions is ultimately also the spell of PHYSIOLOGICAL valuations and racial conditions.--So much by way of rejecting Locke's superficiality with regard to the origin of ideas.

21. The CAUSA SUI is the best self-contradiction that has yet been conceived, it is a sort of logical violation and unnaturalness; but the extravagant pride of man has managed to entangle itself profoundly and frightfully with this very folly. The desire for "freedom of will" in the superlative, metaphysical sense, such as still holds sway, unfortunately, in the minds of the half-educated, the desire to bear the entire and ultimate responsibility for one's actions oneself, and to absolve God, the world, ancestors, chance, and society therefrom, involves nothing less than to be precisely this CAUSA SUI, and, with more than Munchausen daring, to pull oneself up into existence by the hair, out of the slough of nothingness. If any one should find out in this manner the crass stupidity of the celebrated conception of "free will" and put it out of his head altogether, I beg of him to carry his "enlightenment" a step further, and also put out of his head the contrary of this monstrous conception of "free will": I mean "non-free will," which is tantamount to a misuse of cause and effect. One should not wrongly MATERIALISE "cause" and "effect," as the natural philosophers do (and whoever like them naturalize in thinking at present), according to the prevailing mechanical doltishness which makes the cause press and push until it "effects" its end; one should use "cause" and "effect" only as pure CONCEPTIONS, that is to say, as conventional fictions for the purpose of designation and mutual understanding,--NOT for explanation. In "being-in-itself" there is nothing of "casual- connection," of "necessity," or of "psychological non-freedom"; there the effect does NOT follow the cause, there "law" does not obtain. It is WE alone who have devised cause, sequence, reciprocity, relativity, constraint, number, law, freedom, motive, and purpose; and when we interpret and intermix this symbol-world, as "being-in-itself," with things, we act once more as we have always acted--MYTHOLOGICALLY. The "non-free will" is mythology; in real life it is only a question of STRONG and WEAK wills.--It is almost always a symptom of what is lacking in himself, when a thinker, in every "causal-connection" and "psychological necessity," manifests something of compulsion, indigence, obsequiousness, oppression, and non-freedom; it is suspicious to have such feelings--the person betrays himself. And in general, if I have observed correctly, the "non-freedom of the will" is regarded as a problem from two entirely opposite standpoints, but always in a profoundly PERSONAL manner: some will not give up their "responsibility," their belief in THEMSELVES, the personal right to THEIR merits, at any price (the vain races belong to this class); others on the contrary, do not wish to be answerable for anything, or blamed for anything, and owing to an inward self-contempt, seek to GET OUT OF THE BUSINESS, no matter how. The latter, when they write books, are in the

habit at present of taking the side of criminals; a sort of socialistic sympathy is their favourite disguise. And as a matter of fact, the fatalism of the weak-willed embellishes itself surprisingly when it can pose as "la religion de la souffrance humaine"; that is ITS "good taste."

22. Let me be pardoned, as an old philologist who cannot desist from the mischief of putting his finger on bad modes of interpretation, but "Nature's conformity to law," of which you physicists talk so proudly, as though--why, it exists only owing to your interpretation and bad "philology." It is no matter of fact, no "text," but rather just a naively humanitarian adjustment and perversion of meaning, with which you make abundant concessions to the democratic instincts of the modern soul! "Everywhere equality before the law--Nature is not different in that respect, nor better than we": a fine instance of secret motive, in which the vulgar antagonism to everything privileged and autocratic--likewise a second and more refined atheism--is once more disguised. "Ni dieu, ni maitre"--that, also, is what you want; and therefore "Cheers for natural law!"-- is it not so? But, as has been said, that is interpretation, not text; and somebody might come along, who, with opposite intentions and modes of interpretation, could read out of the same "Nature," and with regard to the same phenomena, just the tyrannically inconsiderate and relentless enforcement of the claims of power--an interpreter who should so place the unexceptionalness and unconditionalness of all "Will to Power" before your eyes, that almost every word, and the word "tyranny" itself, would eventually seem unsuitable, or like a weakening and softening metaphor--as being too human; and who should, nevertheless, end by asserting the same about this world as you do, namely, that it has a "necessary" and "calculable" course, NOT, however, because laws obtain in it, but because they are absolutely LACKING, and every power effects its ultimate consequences every moment. Granted that this also is only interpretation--and you will be eager enough to make this objection?--well, so much the better.

23. All psychology hitherto has run aground on moral prejudices and timidities, it has not dared to launch out into the depths. In so far as it is allowable to recognize in that which has hitherto been written, evidence of that which has hitherto been kept silent, it seems as if nobody had yet harboured the notion of psychology as the Morphology and DEVELOPMENT-DOCTRINE OF THE WILL TO POWER, as I conceive of it. The power of moral prejudices has penetrated deeply into the most intellectual world, the world apparently most indifferent and unprejudiced, and has obviously operated in an injurious, obstructive, blinding, and distorting manner. A proper physio-psychology has to contend with unconscious antagonism in the heart of the investigator, it has "the heart" against it even a doctrine of the reciprocal conditionalness of the "good" and the "bad" impulses, causes (as refined immorality) distress and aversion in a still strong and manly conscience--still more so, a doctrine of the derivation of all good impulses from bad ones. If, however, a person should regard even the emotions of hatred, envy, covetousness, and imperiousness as life-conditioning emotions, as factors which must be present, fundamentally and essentially, in the general economy of life (which must, therefore, be further developed if life is to be further developed), he will suffer from such a view of things as from sea-sickness. And yet this hypothesis is far from being the strangest and most painful in this immense and almost new domain of dangerous knowledge, and there are in fact a hundred good reasons why every one should keep away from it who CAN do so! On the other hand, if one has once drifted hither with one's bark, well! very good! now let us set our teeth firmly! let us open our eyes and keep our hand fast on the helm! We sail away right OVER morality, we crush out, we destroy perhaps the remains of our own morality by daring to make our voyage thither--but what do WE matter. Never yet did a PROFOUNDER world of insight reveal itself to daring travelers and adventurers, and the psychologist who thus "makes a sacrifice"--it is not the sacrificio dell' intelletto, on the contrary!--will at least be entitled to demand in return that psychology shall once more be recognized as the queen of the sciences, for whose service and equipment the other sciences exist. For psychology is once more the path to the fundamental problems.

Beyond Good and Evil/Chapter IX

←Chapter VIII. **Beyond Good and Evil** by *Friedrich*

Aftersong→

Nietzsche

Chapter IX. What is Noble?

257. EVERY elevation of the type "man," has hitherto been the work of an aristocratic society and so it will always be--a society believing in a long scale of gradations of rank and differences of worth among human beings, and requiring slavery in some form or other. Without the PATHOS OF DISTANCE, such as grows out of the incarnated difference of classes, out of the constant out-looking and down-looking of the ruling caste on subordinates and instruments, and out of their equally constant practice of obeying and commanding, of keeping down and keeping at a distance--that other more mysterious pathos could never have arisen, the longing for an ever new widening of distance within the soul itself, the formation of ever higher, rarer, further, more extended, more comprehensive states, in short, just the elevation of the type "man," the continued "self-surmounting of man," to use a moral formula in a supermoral sense. To be sure, one must not resign oneself to any humanitarian illusions about the history of the origin of an aristocratic society (that is to say, of the preliminary condition for the elevation of the type "man"): the truth is hard. Let us acknowledge unprejudicedly how every higher civilization hitherto has ORIGINATED! Men with a still natural nature, barbarians in every terrible sense of the word, men of prey, still in possession of unbroken strength of will and desire for power, threw themselves upon weaker, more moral, more peaceful races (perhaps trading or cattle-rearing communities), or upon old mellow civilizations in which the final vital force was flickering out in brilliant fireworks of wit and depravity. At the commencement, the noble caste was always the barbarian caste: their superiority did not consist first of all in their physical, but in their psychical power--they were more COMPLETE men (which at every point also implies the same as "more complete beasts").

258. Corruption--as the indication that anarchy threatens to break out among the instincts, and that the foundation of the emotions, called "life," is convulsed--is something radically different according to the organization in which it manifests itself. When, for instance, an aristocracy like that of France at the beginning of the Revolution, flung away its privileges with sublime disgust and sacrificed itself to an excess of its moral sentiments, it was corruption:--it was really only the closing act of the corruption which had existed for centuries, by virtue of which that aristocracy had abdicated step by step its lordly prerogatives and lowered itself to a FUNCTION of royalty (in the end even to its decoration and parade-dress). The essential thing, however, in a good and healthy aristocracy is that it should not regard itself as a function either of the kingship or the commonwealth, but as the SIGNIFICANCE and highest justification thereof--that it should therefore accept with a good conscience the sacrifice of a legion of individuals, who, FOR ITS SAKE, must be suppressed and reduced to imperfect men, to slaves and instruments. Its fundamental belief must be precisely that society is NOT allowed to exist for its own sake, but only as a foundation and scaffolding, by means of which a select class of beings may be able to elevate themselves to their higher duties, and in general to a higher EXISTENCE: like those sun-seeking climbing plants in Java--they are called Sipo Matador,--which encircle an oak so long and so often with their arms, until at last, high above it, but supported by it, they can unfold their tops in the open light, and exhibit their happiness.

259. To refrain mutually from injury, from violence, from exploitation, and put one's will on a par with that of others: this may result in a certain rough sense in good conduct among individuals when the necessary conditions are given (namely, the actual similarity of the individuals in amount of force and degree of worth, and their co-relation within one organization). As soon, however, as one wished to take this principle more generally, and if possible even as the FUNDAMENTAL PRINCIPLE OF SOCIETY, it would immediately disclose what it really is--namely, a Will to the DENIAL of life, a principle of dissolution and decay. Here one must think profoundly to the very basis and resist all sentimental weakness: life itself is ESSENTIALLY appropriation, injury, conquest of the strange and weak, suppression, severity, obtrusion of peculiar forms, incorporation, and at the least, putting it mildest,

exploitation;--but why should one for ever use precisely these words on which for ages a disparaging purpose has been stamped? Even the organization within which, as was previously supposed, the individuals treat each other as equal--it takes place in every healthy aristocracy--must itself, if it be a living and not a dying organization, do all that towards other bodies, which the individuals within it refrain from doing to each other it will have to be the incarnated Will to Power, it will endeavour to grow, to gain ground, attract to itself and acquire ascendancy-- not owing to any morality or immorality, but because it LIVES, and because life IS precisely Will to Power. On no point, however, is the ordinary consciousness of Europeans more unwilling to be corrected than on this matter, people now rave everywhere, even under the guise of science, about coming conditions of society in which "the exploiting character" is to be absent--that sounds to my ears as if they promised to invent a mode of life which should refrain from all organic functions. "Exploitation" does not belong to a depraved, or imperfect and primitive society it belongs to the nature of the living being as a primary organic function, it is a consequence of the intrinsic Will to Power, which is precisely the Will to Life--Granting that as a theory this is a novelty--as a reality it is the FUNDAMENTAL FACT of all history let us be so far honest towards ourselves!

260. In a tour through the many finer and coarser moralities which have hitherto prevailed or still prevail on the earth, I found certain traits recurring regularly together, and connected with one another, until finally two primary types revealed themselves to me, and a radical distinction was brought to light. There is MASTER-MORALITY and SLAVE-MORALITY,--I would at once add, however, that in all higher and mixed civilizations, there are also attempts at the reconciliation of the two moralities, but one finds still oftener the confusion and mutual misunderstanding of them, indeed sometimes their close juxtaposition--even in the same man, within one soul. The distinctions of moral values have either originated in a ruling caste, pleasantly conscious of being different from the ruled--or among the ruled class, the slaves and dependents of all sorts. In the first case, when it is the rulers who determine the conception "good," it is the exalted, proud disposition which is regarded as the distinguishing feature, and that which determines the order of rank. The noble type of man separates from himself the beings in whom the opposite of this exalted, proud disposition displays itself he despises them. Let it at once be noted that in this first kind of morality the antithesis "good" and "bad" means practically the same as "noble" and "despicable",--the antithesis "good" and "EVIL" is of a different origin. The cowardly, the timid, the insignificant, and those thinking merely of narrow utility are despised; moreover, also, the distrustful, with their constrained glances, the self-abasing, the dog-like kind of men who let themselves be abused, the mendicant flatterers, and above all the liars:--it is a fundamental belief of all aristocrats that the common people are untruthful. "We truthful ones"--the nobility in ancient Greece called themselves. It is obvious that everywhere the designations of moral value were at first applied to MEN; and were only derivatively and at a later period applied to ACTIONS; it is a gross mistake, therefore, when historians of morals start with questions like, "Why have sympathetic actions been praised?" The noble type of man regards HIMSELF as a determiner of values; he does not require to be approved of; he passes the judgment: "What is injurious to me is injurious in itself;" he knows that it is he himself only who confers honour on things; he is a CREATOR OF VALUES. He honours whatever he recognizes in himself: such morality equals self-glorification. In the foreground there is the feeling of plenitude, of power, which seeks to overflow, the happiness of high tension, the consciousness of a wealth which would fain give and bestow:--the noble man also helps the unfortunate, but not--or scarcely--out of pity, but rather from an impulse generated by the super-abundance of power. The noble man honours in himself the powerful one, him also who has power over himself, who knows how to speak and how to keep silence, who takes pleasure in subjecting himself to severity and hardness, and has reverence for all that is severe and hard. "Wotan placed a hard heart in my breast," says an old Scandinavian Saga: it is thus rightly expressed from the soul of a proud Viking. Such a type of man is even proud of not being made for sympathy; the hero of the Saga therefore adds warningly: "He who has not a hard heart when young, will never have one." The noble and brave who think thus are the furthest removed from the morality which sees precisely in sympathy, or in acting for the good of others, or in DESINTERESSEMENT, the characteristic of the moral; faith in oneself, pride in oneself, a radical enmity and irony towards "selflessness," belong as definitely to noble morality, as do a careless scorn and precaution in presence of sympathy and the "warm heart."--It is the powerful who KNOW how to honour, it is their art, their

domain for invention. The profound reverence for age and for tradition--all law rests on this double reverence,-- the belief and prejudice in favour of ancestors and unfavourable to newcomers, is typical in the morality of the powerful; and if, reversely, men of "modern ideas" believe almost instinctively in "progress" and the "future," and are more and more lacking in respect for old age, the ignoble origin of these "ideas" has complacently betrayed itself thereby. A morality of the ruling class, however, is more especially foreign and irritating to present-day taste in the sternness of its principle that one has duties only to one's equals; that one may act towards beings of a lower rank, towards all that is foreign, just as seems good to one, or "as the heart desires," and in any case "beyond good and evil": it is here that sympathy and similar sentiments can have a place. The ability and obligation to exercise prolonged gratitude and prolonged revenge--both only within the circle of equals,-- artfulness in retaliation, RAFFINEMENT of the idea in friendship, a certain necessity to have enemies (as outlets for the emotions of envy, quarrelsomeness, arrogance--in fact, in order to be a good FRIEND): all these are typical characteristics of the noble morality, which, as has been pointed out, is not the morality of "modern ideas," and is therefore at present difficult to realize, and also to unearth and disclose.--It is otherwise with the second type of morality, SLAVE-MORALITY. Supposing that the abused, the oppressed, the suffering, the unemancipated, the weary, and those uncertain of themselves should moralize, what will be the common element in their moral estimates? Probably a pessimistic suspicion with regard to the entire situation of man will find expression, perhaps a condemnation of man, together with his situation. The slave has an unfavourable eye for the virtues of the powerful; he has a skepticism and distrust, a REFINEMENT of distrust of everything "good" that is there honoured--he would fain persuade himself that the very happiness there is not genuine. On the other hand, THOSE qualities which serve to alleviate the existence of sufferers are brought into prominence and flooded with light; it is here that sympathy, the kind, helping hand, the warm heart, patience, diligence, humility, and friendliness attain to honour; for here these are the most useful qualities, and almost the only means of supporting the burden of existence. Slave-morality is essentially the morality of utility. Here is the seat of the origin of the famous antithesis "good" and "evil":--power and dangerousness are assumed to reside in the evil, a certain dreadfulness, subtlety, and strength, which do not admit of being despised. According to slave-morality, therefore, the "evil" man arouses fear; according to master-morality, it is precisely the "good" man who arouses fear and seeks to arouse it, while the bad man is regarded as the despicable being. The contrast attains its maximum when, in accordance with the logical consequences of slave-morality, a shade of depreciation--it may be slight and well-intentioned--at last attaches itself to the "good" man of this morality; because, according to the servile mode of thought, the good man must in any case be the SAFE man: he is good-natured, easily deceived, perhaps a little stupid, un bonhomme. Everywhere that slave-morality gains the ascendancy, language shows a tendency to approximate the significations of the words "good" and "stupid."- -A last fundamental difference: the desire for FREEDOM, the instinct for happiness and the refinements of the feeling of liberty belong as necessarily to slave-morals and morality, as artifice and enthusiasm in reverence and devotion are the regular symptoms of an aristocratic mode of thinking and estimating.-- Hence we can understand without further detail why love AS A PASSION--it is our European specialty--must absolutely be of noble origin; as is well known, its invention is due to the Provencal poet-cavaliers, those brilliant, ingenious men of the "gai saber," to whom Europe owes so much, and almost owes itself.

261. Vanity is one of the things which are perhaps most difficult for a noble man to understand: he will be tempted to deny it, where another kind of man thinks he sees it self-evidently. The problem for him is to represent to his mind beings who seek to arouse a good opinion of themselves which they themselves do not possess--and consequently also do not "deserve,"--and who yet BELIEVE in this good opinion afterwards. This seems to him on the one hand such bad taste and so self-disrespectful, and on the other hand so grotesquely unreasonable, that he would like to consider vanity an exception, and is doubtful about it in most cases when it is spoken of. He will say, for instance: "I may be mistaken about my value, and on the other hand may nevertheless demand that my value should be acknowledged by others precisely as I rate it:--that, however, is not vanity (but self-conceit, or, in most cases, that which is called 'humility,' and also 'modesty')." Or he will even say: "For many reasons I can delight in the good opinion of others, perhaps because I love and honour them, and rejoice in all their joys, perhaps also because their

good opinion endorses and strengthens my belief in my own good opinion, perhaps because the good opinion of others, even in cases where I do not share it, is useful to me, or gives promise of usefulness:--all this, however, is not vanity." The man of noble character must first bring it home forcibly to his mind, especially with the aid of history, that, from time immemorial, in all social strata in any way dependent, the ordinary man WAS only that which he PASSED FOR:--not being at all accustomed to fix values, he did not assign even to himself any other value than that which his master assigned to him (it is the peculiar RIGHT OF MASTERS to create values). It may be looked upon as the result of an extraordinary atavism, that the ordinary man, even at present, is still always WAITING for an opinion about himself, and then instinctively submitting himself to it; yet by no means only to a "good" opinion, but also to a bad and unjust one (think, for instance, of the greater part of the self- appreciations and self-depreciations which believing women learn from their confessors, and which in general the believing Christian learns from his Church). In fact, conformably to the slow rise of the democratic social order (and its cause, the blending of the blood of masters and slaves), the originally noble and rare impulse of the masters to assign a value to themselves and to "think well" of themselves, will now be more and more encouraged and extended; but it has at all times an older, ampler, and more radically ingrained propensity opposed to it--and in the phenomenon of "vanity" this older propensity overmasters the younger. The vain person rejoices over EVERY good opinion which he hears about himself (quite apart from the point of view of its usefulness, and equally regardless of its truth or falsehood), just as he suffers from every bad opinion: for he subjects himself to both, he feels himself subjected to both, by that oldest instinct of subjection which breaks forth in him.--It is "the slave" in the vain man's blood, the remains of the slave's craftiness--and how much of the "slave" is still left in woman, for instance!--which seeks to SEDUCE to good opinions of itself; it is the slave, too, who immediately afterwards falls prostrate himself before these opinions, as though he had not called them forth.--And to repeat it again: vanity is an atavism.

262. A SPECIES originates, and a type becomes established and strong in the long struggle with essentially constant UNFAVOURABLE conditions. On the other hand, it is known by the experience of breeders that species which receive super-abundant nourishment, and in general a surplus of protection and care, immediately tend in the most marked way to develop variations, and are fertile in prodigies and monstrosities (also in monstrous vices). Now look at an aristocratic commonwealth, say an ancient Greek polis, or Venice, as a voluntary or involuntary contrivance for the purpose of REARING human beings; there are there men beside one another, thrown upon their own resources, who want to make their species prevail, chiefly because they MUST prevail, or else run the terrible danger of being exterminated. The favour, the super-abundance, the protection are there lacking under which variations are fostered; the species needs itself as species, as something which, precisely by virtue of its hardness, its uniformity, and simplicity of structure, can in general prevail and make itself permanent in constant struggle with its neighbours, or with rebellious or rebellion-threatening vassals. The most varied experience teaches it what are the qualities to which it principally owes the fact that it still exists, in spite of all Gods and men, and has hitherto been victorious: these qualities it calls virtues, and these virtues alone it develops to maturity. It does so with severity, indeed it desires severity; every aristocratic morality is intolerant in the education of youth, in the control of women, in the marriage customs, in the relations of old and young, in the penal laws (which have an eye only for the degenerating): it counts intolerance itself among the virtues, under the name of "justice." A type with few, but very marked features, a species of severe, warlike, wisely silent, reserved, and reticent men (and as such, with the most delicate sensibility for the charm and nuances of society) is thus established, unaffected by the vicissitudes of generations; the constant struggle with uniform UNFAVOURABLE conditions is, as already remarked, the cause of a type becoming stable and hard. Finally, however, a happy state of things results, the enormous tension is relaxed; there are perhaps no more enemies among the neighbouring peoples, and the means of life, even of the enjoyment of life, are present in superabundance. With one stroke the bond and constraint of the old discipline severs: it is no longer regarded as necessary, as a condition of existence--if it would continue, it can only do so as a form of LUXURY, as an archaizing TASTE. Variations, whether they be deviations (into the higher, finer, and rarer), or deteriorations and monstrosities, appear suddenly on the scene in the greatest exuberance and splendour; the individual dares to be individual and detach himself. At this turning-point of history there manifest themselves, side by side, and often

mixed and entangled together, a magnificent, manifold, virgin-forest-like up-growth and up-striving, a kind of TROPICAL TEMPO in the rivalry of growth, and an extraordinary decay and self-destruction, owing to the savagely opposing and seemingly exploding egoisms, which strive with one another "for sun and light," and can no longer assign any limit, restraint, or forbearance for themselves by means of the hitherto existing morality. It was this morality itself which piled up the strength so enormously, which bent the bow in so threatening a manner:--it is now "out of date," it is getting "out of date." The dangerous and disquieting point has been reached when the greater, more manifold, more comprehensive life IS LIVED BEYOND the old morality; the "individual" stands out, and is obliged to have recourse to his own law-giving, his own arts and artifices for self-preservation, self-elevation, and self-deliverance. Nothing but new "Whys," nothing but new "Hows," no common formulas any longer, misunderstanding and disregard in league with each other, decay, deterioration, and the loftiest desires frightfully entangled, the genius of the race overflowing from all the cornucopias of good and bad, a portentous simultaneousness of Spring and Autumn, full of new charms and mysteries peculiar to the fresh, still inexhausted, still unwearied corruption. Danger is again present, the mother of morality, great danger; this time shifted into the individual, into the neighbour and friend, into the street, into their own child, into their own heart, into all the most personal and secret recesses of their desires and volitions. What will the moral philosophers who appear at this time have to preach? They discover, these sharp onlookers and loafers, that the end is quickly approaching, that everything around them decays and produces decay, that nothing will endure until the day after tomorrow, except one species of man, the incurably MEDIOCRE. The mediocre alone have a prospect of continuing and propagating themselves--they will be the men of the future, the sole survivors; "be like them! become mediocre!" is now the only morality which has still a significance, which still obtains a hearing.--But it is difficult to preach this morality of mediocrity! it can never avow what it is and what it desires! it has to talk of moderation and dignity and duty and brotherly love--it will have difficulty IN CONCEALING ITS IRONY!

263. There is an INSTINCT FOR RANK, which more than anything else is already the sign of a HIGH rank; there is a DELIGHT in the NUANCES of reverence which leads one to infer noble origin and habits. The refinement, goodness, and loftiness of a soul are put to a perilous test when something passes by that is of the highest rank, but is not yet protected by the awe of authority from obtrusive touches and incivilities: something that goes its way like a living touchstone, undistinguished, undiscovered, and tentative, perhaps voluntarily veiled and disguised. He whose task and practice it is to investigate souls, will avail himself of many varieties of this very art to determine the ultimate value of a soul, the unalterable, innate order of rank to which it belongs: he will test it by its INSTINCT FOR REVERENCE. DIFFERENCE ENGENDRE HAINE: the vulgarity of many a nature spurts up suddenly like dirty water, when any holy vessel, any jewel from closed shrines, any book bearing the marks of great destiny, is brought before it; while on the other hand, there is an involuntary silence, a hesitation of the eye, a cessation of all gestures, by which it is indicated that a soul FEELS the nearness of what is worthiest of respect. The way in which, on the whole, the reverence for the BIBLE has hitherto been maintained in Europe, is perhaps the best example of discipline and refinement of manners which Europe owes to Christianity: books of such profoundness and supreme significance require for their protection an external tyranny of authority, in order to acquire the PERIOD of thousands of years which is necessary to exhaust and unriddle them. Much has been achieved when the sentiment has been at last instilled into the masses (the shallow-pates and the boobies of every kind) that they are not allowed to touch everything, that there are holy experiences before which they must take off their shoes and keep away the unclean hand--it is almost their highest advance towards humanity. On the contrary, in the so-called cultured classes, the believers in "modern ideas," nothing is perhaps so repulsive as their lack of shame, the easy insolence of eye and hand with which they touch, taste, and finger everything; and it is possible that even yet there is more RELATIVE nobility of taste, and more tact for reverence among the people, among the lower classes of the people, especially among peasants, than among the newspaper-reading DEMIMONDE of intellect, the cultured class.

264. It cannot be effaced from a man's soul what his ancestors have preferably and most constantly done: whether they were perhaps diligent economizers attached to a desk and a cash-box, modest and citizen-like in their desires, modest also in their virtues; or whether they were accustomed to commanding from morning till night, fond of rude

pleasures and probably of still ruder duties and responsibilities; or whether, finally, at one time or another, they have sacrificed old privileges of birth and possession, in order to live wholly for their faith--for their "God,"--as men of an inexorable and sensitive conscience, which blushes at every compromise. It is quite impossible for a man NOT to have the qualities and predilections of his parents and ancestors in his constitution, whatever appearances may suggest to the contrary. This is the problem of race. Granted that one knows something of the parents, it is admissible to draw a conclusion about the child: any kind of offensive incontinence, any kind of sordid envy, or of clumsy self-vaunting--the three things which together have constituted the genuine plebeian type in all times--such must pass over to the child, as surely as bad blood; and with the help of the best education and culture one will only succeed in DECEIVING with regard to such heredity.--And what else does education and culture try to do nowadays! In our very democratic, or rather, very plebeian age, "education" and "culture" MUST be essentially the art of deceiving--deceiving with regard to origin, with regard to the inherited plebeianism in body and soul. An educator who nowadays preached truthfulness above everything else, and called out constantly to his pupils: "Be true! Be natural! Show yourselves as you are!"--even such a virtuous and sincere ass would learn in a short time to have recourse to the FURCA of Horace, NATURAM EXPELLERE: with what results? "Plebeianism" USQUE RECURRET. [FOOTNOTE: Horace's "Epistles," I. x. 24.]

265. At the risk of displeasing innocent ears, I submit that egoism belongs to the essence of a noble soul, I mean the unalterable belief that to a being such as "we," other beings must naturally be in subjection, and have to sacrifice themselves. The noble soul accepts the fact of his egoism without question, and also without consciousness of harshness, constraint, or arbitrariness therein, but rather as something that may have its basis in the primary law of things:--if he sought a designation for it he would say: "It is justice itself." He acknowledges under certain circumstances, which made him hesitate at first, that there are other equally privileged ones; as soon as he has settled this question of rank, he moves among those equals and equally privileged ones with the same assurance, as regards modesty and delicate respect, which he enjoys in intercourse with himself--in accordance with an innate heavenly mechanism which all the stars understand. It is an ADDITIONAL instance of his egoism, this artfulness and self-limitation in intercourse with his equals--every star is a similar egoist; he honours HIMSELF in them, and in the rights which he concedes to them, he has no doubt that the exchange of honours and rights, as the ESSENCE of all intercourse, belongs also to the natural condition of things. The noble soul gives as he takes, prompted by the passionate and sensitive instinct of requital, which is at the root of his nature. The notion of "favour" has, INTER PARES, neither significance nor good repute; there may be a sublime way of letting gifts as it were light upon one from above, and of drinking them thirstily like dew-drops; but for those arts and displays the noble soul has no aptitude. His egoism hinders him here: in general, he looks "aloft" unwillingly--he looks either FORWARD, horizontally and deliberately, or downwards--HE KNOWS THAT HE IS ON A HEIGHT.

266. "One can only truly esteem him who does not LOOK OUT FOR himself."--Goethe to Rath Schlosser.

267. The Chinese have a proverb which mothers even teach their children: "SIAO-SIN" ("MAKE THY HEART SMALL"). This is the essentially fundamental tendency in latter-day civilizations. I have no doubt that an ancient Greek, also, would first of all remark the self-dwarfing in us Europeans of today--in this respect alone we should immediately be "distasteful" to him.

268. What, after all, is ignobleness?--Words are vocal symbols for ideas; ideas, however, are more or less definite mental symbols for frequently returning and concurring sensations, for groups of sensations. It is not sufficient to use the same words in order to understand one another: we must also employ the same words for the same kind of internal experiences, we must in the end have experiences IN COMMON. On this account the people of one nation understand one another better than those belonging to different nations, even when they use the same language; or rather, when people have lived long together under similar conditions (of climate, soil, danger, requirement, toil) there ORIGINATES therefrom an entity that "understands itself"--namely, a nation. In all souls a like number of frequently recurring experiences have gained the upper hand over those occurring more rarely: about these matters people understand one another rapidly and always more rapidly--the history of language is the history of a process of

abbreviation; on the basis of this quick comprehension people always unite closer and closer. The greater the danger, the greater is the need of agreeing quickly and readily about what is necessary; not to misunderstand one another in danger--that is what cannot at all be dispensed with in intercourse. Also in all loves and friendships one has the experience that nothing of the kind continues when the discovery has been made that in using the same words, one of the two parties has feelings, thoughts, intuitions, wishes, or fears different from those of the other. (The fear of the "eternal misunderstanding": that is the good genius which so often keeps persons of different sexes from too hasty attachments, to which sense and heart prompt them--and NOT some Schopenhauerian "genius of the species"!) Whichever groups of sensations within a soul awaken most readily, begin to speak, and give the word of command--these decide as to the general order of rank of its values, and determine ultimately its list of desirable things. A man's estimates of value betray something of the STRUCTURE of his soul, and wherein it sees its conditions of life, its intrinsic needs. Supposing now that necessity has from all time drawn together only such men as could express similar requirements and similar experiences by similar symbols, it results on the whole that the easy COMMUNICABILITY of need, which implies ultimately the undergoing only of average and COMMON experiences, must have been the most potent of all the forces which have hitherto operated upon mankind. The more similar, the more ordinary people, have always had and are still having the advantage; the more select, more refined, more unique, and difficultly comprehensible, are liable to stand alone; they succumb to accidents in their isolation, and seldom propagate themselves. One must appeal to immense opposing forces, in order to thwart this natural, all-too-natural PROGRESSUS IN SIMILE, the evolution of man to the similar, the ordinary, the average, the gregarious --to the IGNOBLE!--

269. The more a psychologist--a born, an unavoidable psychologist and soul-diviner--turns his attention to the more select cases and individuals, the greater is his danger of being suffocated by sympathy: he NEEDS sternness and cheerfulness more than any other man. For the corruption, the ruination of higher men, of the more unusually constituted souls, is in fact, the rule: it is dreadful to have such a rule always before one's eyes. The manifold torment of the psychologist who has discovered this ruination, who discovers once, and then discovers ALMOST repeatedly throughout all history, this universal inner "desperateness" of higher men, this eternal "too late!" in every sense--may perhaps one day be the cause of his turning with bitterness against his own lot, and of his making an attempt at self-destruction--of his "going to ruin" himself. One may perceive in almost every psychologist a tell-tale inclination for delightful intercourse with commonplace and well-ordered men; the fact is thereby disclosed that he always requires healing, that he needs a sort of flight and forgetfulness, away from what his insight and incisiveness--from what his "business"--has laid upon his conscience. The fear of his memory is peculiar to him. He is easily silenced by the judgment of others; he hears with unmoved countenance how people honour, admire, love, and glorify, where he has PERCEIVED--or he even conceals his silence by expressly assenting to some plausible opinion. Perhaps the paradox of his situation becomes so dreadful that, precisely where he has learnt GREAT SYMPATHY, together with great CONTEMPT, the multitude, the educated, and the visionaries, have on their part learnt great reverence--reverence for "great men" and marvelous animals, for the sake of whom one blesses and honours the fatherland, the earth, the dignity of mankind, and one's own self, to whom one points the young, and in view of whom one educates them. And who knows but in all great instances hitherto just the same happened: that the multitude worshipped a God, and that the "God" was only a poor sacrificial animal! SUCCESS has always been the greatest liar--and the "work" itself is a success; the great statesman, the conqueror, the discoverer, are disguised in their creations until they are unrecognizable; the "work" of the artist, of the philosopher, only invents him who has created it, is REPUTED to have created it; the "great men," as they are revered, are poor little fictions composed afterwards; in the world of historical values spurious coinage PREVAILS. Those great poets, for example, such as Byron, Musset, Poe, Leopardi, Kleist, Gogol (I do not venture to mention much greater names, but I have them in my mind), as they now appear, and were perhaps obliged to be: men of the moment, enthusiastic, sensuous, and childish, light-minded and impulsive in their trust and distrust; with souls in which usually some flaw has to be concealed; often taking revenge with their works for an internal defilement, often seeking forgetfulness in their soaring from a too true memory, often lost in the mud and almost in love with it, until they become like the

Will-o'-the-Wisps around the swamps, and PRETEND TO BE stars--the people then call them idealists,--often struggling with protracted disgust, with an ever-reappearing phantom of disbelief, which makes them cold, and obliges them to languish for GLORIA and devour "faith as it is" out of the hands of intoxicated adulators:--what a TORTURE these great artists are and the so-called higher men in general, to him who has once found them out! It is thus conceivable that it is just from woman--who is clairvoyant in the world of suffering, and also unfortunately eager to help and save to an extent far beyond her powers--that THEY have learnt so readily those outbreaks of boundless devoted SYMPATHY, which the multitude, above all the reverent multitude, do not understand, and overwhelm with prying and self-gratifying interpretations. This sympathizing invariably deceives itself as to its power; woman would like to believe that love can do EVERYTHING--it is the SUPERSTITION peculiar to her. Alas, he who knows the heart finds out how poor, helpless, pretentious, and blundering even the best and deepest love is--he finds that it rather DESTROYS than saves!--It is possible that under the holy fable and travesty of the life of Jesus there is hidden one of the most painful cases of the martyrdom of KNOWLEDGE ABOUT LOVE: the martyrdom of the most innocent and most craving heart, that never had enough of any human love, that DEMANDED love, that demanded inexorably and frantically to be loved and nothing else, with terrible outbursts against those who refused him their love; the story of a poor soul insatiated and insatiable in love, that had to invent hell to send thither those who WOULD NOT love him--and that at last, enlightened about human love, had to invent a God who is entire love, entire CAPACITY for love--who takes pity on human love, because it is so paltry, so ignorant! He who has such sentiments, he who has such KNOWLEDGE about love--SEEKS for death!--But why should one deal with such painful matters? Provided, of course, that one is not obliged to do so.

270. The intellectual haughtiness and loathing of every man who has suffered deeply--it almost determines the order of rank HOW deeply men can suffer--the chilling certainty, with which he is thoroughly imbued and coloured, that by virtue of his suffering he KNOWS MORE than the shrewdest and wisest can ever know, that he has been familiar with, and "at home" in, many distant, dreadful worlds of which "YOU know nothing!"--this silent intellectual haughtiness of the sufferer, this pride of the elect of knowledge, of the "initiated," of the almost sacrificed, finds all forms of disguise necessary to protect itself from contact with officious and sympathizing hands, and in general from all that is not its equal in suffering. Profound suffering makes noble: it separates.--One of the most refined forms of disguise is Epicurism, along with a certain ostentatious boldness of taste, which takes suffering lightly, and puts itself on the defensive against all that is sorrowful and profound. They are "gay men" who make use of gaiety, because they are misunderstood on account of it--they WISH to be misunderstood. There are "scientific minds" who make use of science, because it gives a gay appearance, and because scientificness leads to the conclusion that a person is superficial--they WISH to mislead to a false conclusion. There are free insolent minds which would fain conceal and deny that they are broken, proud, incurable hearts (the cynicism of Hamlet--the case of Galiani); and occasionally folly itself is the mask of an unfortunate OVER- ASSURED knowledge.--From which it follows that it is the part of a more refined humanity to have reverence "for the mask," and not to make use of psychology and curiosity in the wrong place.

271. That which separates two men most profoundly is a different sense and grade of purity. What does it matter about all their honesty and reciprocal usefulness, what does it matter about all their mutual good-will: the fact still remains--they "cannot smell each other!" The highest instinct for purity places him who is affected with it in the most extraordinary and dangerous isolation, as a saint: for it is just holiness--the highest spiritualization of the instinct in question. Any kind of cognizance of an indescribable excess in the joy of the bath, any kind of ardour or thirst which perpetually impels the soul out of night into the morning, and out of gloom, out of "affliction" into clearness, brightness, depth, and refinement:--just as much as such a tendency DISTINGUISHES--it is a noble tendency--it also SEPARATES.--The pity of the saint is pity for the FILTH of the human, all-too-human. And there are grades and heights where pity itself is regarded by him as impurity, as filth.

272. Signs of nobility: never to think of lowering our duties to the rank of duties for everybody; to be unwilling to renounce or to share our responsibilities; to count our prerogatives, and the exercise of them, among our DUTIES.

273. A man who strives after great things, looks upon every one whom he encounters on his way either as a means of advance, or a delay and hindrance--or as a temporary resting-place. His peculiar lofty BOUNTY to his fellow-men is only possible when he attains his elevation and dominates. Impatience, and the consciousness of being always condemned to comedy up to that time--for even strife is a comedy, and conceals the end, as every means does--spoil all intercourse for him; this kind of man is acquainted with solitude, and what is most poisonous in it.

274. THE PROBLEM OF THOSE WHO WAIT.--Happy chances are necessary, and many incalculable elements, in order that a higher man in whom the solution of a problem is dormant, may yet take action, or "break forth," as one might say--at the right moment. On an average it DOES NOT happen; and in all corners of the earth there are waiting ones sitting who hardly know to what extent they are waiting, and still less that they wait in vain. Occasionally, too, the waking call comes too late--the chance which gives "permission" to take action--when their best youth, and strength for action have been used up in sitting still; and how many a one, just as he "sprang up," has found with horror that his limbs are benumbed and his spirits are now too heavy! "It is too late," he has said to himself--and has become self-distrustful and henceforth for ever useless.--In the domain of genius, may not the "Raphael without hands" (taking the expression in its widest sense) perhaps not be the exception, but the rule?--Perhaps genius is by no means so rare: but rather the five hundred HANDS which it requires in order to tyrannize over the [GREEK INSERTED HERE], "the right time"--in order to take chance by the forelock!

275. He who does not WISH to see the height of a man, looks all the more sharply at what is low in him, and in the foreground-- and thereby betrays himself.

276. In all kinds of injury and loss the lower and coarser soul is better off than the nobler soul: the dangers of the latter must be greater, the probability that it will come to grief and perish is in fact immense, considering the multiplicity of the conditions of its existence.--In a lizard a finger grows again which has been lost; not so in man.--

277. It is too bad! Always the old story! When a man has finished building his house, he finds that he has learnt unawares something which he OUGHT absolutely to have known before he-- began to build. The eternal, fatal "Too late!" The melancholia of everything COMPLETED!--

278.--Wanderer, who art thou? I see thee follow thy path without scorn, without love, with unfathomable eyes, wet and sad as a plummet which has returned to the light insatiated out of every depth--what did it seek down there?--with a bosom that never sighs, with lips that conceal their loathing, with a hand which only slowly grasps: who art thou? what hast thou done? Rest thee here: this place has hospitality for every one--refresh thyself! And whoever thou art, what is it that now pleases thee? What will serve to refresh thee? Only name it, whatever I have I offer thee! "To refresh me? To refresh me? Oh, thou prying one, what sayest thou! But give me, I pray thee---" What? what? Speak out! "Another mask! A second mask!"

279. Men of profound sadness betray themselves when they are happy: they have a mode of seizing upon happiness as though they would choke and strangle it, out of jealousy--ah, they know only too well that it will flee from them!

280. "Bad! Bad! What? Does he not--go back?" Yes! But you misunderstand him when you complain about it. He goes back like every one who is about to make a great spring.

281.--"Will people believe it of me? But I insist that they believe it of me: I have always thought very unsatisfactorily of myself and about myself, only in very rare cases, only compulsorily, always without delight in 'the subject,' ready to digress from 'myself,' and always without faith in the result, owing to an unconquerable distrust of the POSSIBILITY of self- knowledge, which has led me so far as to feel a CONTRADICTION IN ADJECTO even in the idea of 'direct knowledge' which theorists allow themselves:--this matter of fact is almost the most certain thing I know about myself. There must be a sort of repugnance in me to BELIEVE anything definite about myself.--Is there perhaps some enigma therein? Probably; but fortunately nothing for my own teeth.--Perhaps it betrays the species to which I belong?--but not to myself, as is sufficiently agreeable to me."

282.--"But what has happened to you?"--"I do not know," he said, hesitatingly; "perhaps the Harpies have flown over my table."--It sometimes happens nowadays that a gentle, sober, retiring man becomes suddenly mad, breaks the

plates, upsets the table, shrieks, raves, and shocks everybody--and finally withdraws, ashamed, and raging at himself--whither? for what purpose? To famish apart? To suffocate with his memories?--To him who has the desires of a lofty and dainty soul, and only seldom finds his table laid and his food prepared, the danger will always be great--nowadays, however, it is extraordinarily so. Thrown into the midst of a noisy and plebeian age, with which he does not like to eat out of the same dish, he may readily perish of hunger and thirst--or, should he nevertheless finally "fall to," of sudden nausea.--We have probably all sat at tables to which we did not belong; and precisely the most spiritual of us, who are most difficult to nourish, know the dangerous DYSPEPSIA which originates from a sudden insight and disillusionment about our food and our messmates--the AFTER-DINNER NAUSEA.

283. If one wishes to praise at all, it is a delicate and at the same time a noble self-control, to praise only where one DOES NOT agree--otherwise in fact one would praise oneself, which is contrary to good taste:--a self-control, to be sure, which offers excellent opportunity and provocation to constant MISUNDERSTANDING. To be able to allow oneself this veritable luxury of taste and morality, one must not live among intellectual imbeciles, but rather among men whose misunderstandings and mistakes amuse by their refinement--or one will have to pay dearly for it!--"He praises me, THEREFORE he acknowledges me to be right"--this asinine method of inference spoils half of the life of us recluses, for it brings the asses into our neighbourhood and friendship.

284. To live in a vast and proud tranquility; always beyond . . . To have, or not to have, one's emotions, one's For and Against, according to choice; to lower oneself to them for hours; to SEAT oneself on them as upon horses, and often as upon asses:--for one must know how to make use of their stupidity as well as of their fire. To conserve one's three hundred foregrounds; also one's black spectacles: for there are circumstances when nobody must look into our eyes, still less into our "motives." And to choose for company that roguish and cheerful vice, politeness. And to remain master of one's four virtues, courage, insight, sympathy, and solitude. For solitude is a virtue with us, as a sublime bent and bias to purity, which divines that in the contact of man and man--"in society"--it must be unavoidably impure. All society makes one somehow, somewhere, or sometime--"commonplace."

285. The greatest events and thoughts--the greatest thoughts, however, are the greatest events--are longest in being comprehended: the generations which are contemporary with them do not EXPERIENCE such events--they live past them. Something happens there as in the realm of stars. The light of the furthest stars is longest in reaching man; and before it has arrived man DENIES--that there are stars there. "How many centuries does a mind require to be understood?"--that is also a standard, one also makes a gradation of rank and an etiquette therewith, such as is necessary for mind and for star.

286. "Here is the prospect free, the mind exalted." [FOOTNOTE: Goethe's "Faust," Part II, Act V. The words of Dr. Marianus.]-- But there is a reverse kind of man, who is also upon a height, and has also a free prospect--but looks DOWNWARDS.

287. What is noble? What does the word "noble" still mean for us nowadays? How does the noble man betray himself, how is he recognized under this heavy overcast sky of the commencing plebeianism, by which everything is rendered opaque and leaden?-- It is not his actions which establish his claim--actions are always ambiguous, always inscrutable; neither is it his "works." One finds nowadays among artists and scholars plenty of those who betray by their works that a profound longing for nobleness impels them; but this very NEED of nobleness is radically different from the needs of the noble soul itself, and is in fact the eloquent and dangerous sign of the lack thereof. It is not the works, but the BELIEF which is here decisive and determines the order of rank--to employ once more an old religious formula with a new and deeper meaning--it is some fundamental certainty which a noble soul has about itself, something which is not to be sought, is not to be found, and perhaps, also, is not to be lost.--THE NOBLE SOUL HAS REVERENCE FOR ITSELF.--

288. There are men who are unavoidably intellectual, let them turn and twist themselves as they will, and hold their hands before their treacherous eyes--as though the hand were not a betrayer; it always comes out at last that they have something which they hide--namely, intellect. One of the subtlest means of deceiving, at least as long as possible, and of successfully representing oneself to be stupider than one really is--which in everyday life is often as

desirable as an umbrella,--is called ENTHUSIASM, including what belongs to it, for instance, virtue. For as Galiani said, who was obliged to know it: VERTU EST ENTHOUSIASME.

289. In the writings of a recluse one always hears something of the echo of the wilderness, something of the murmuring tones and timid vigilance of solitude; in his strongest words, even in his cry itself, there sounds a new and more dangerous kind of silence, of concealment. He who has sat day and night, from year's end to year's end, alone with his soul in familiar discord and discourse, he who has become a cave-bear, or a treasure-seeker, or a treasure-guardian and dragon in his cave--it may be a labyrinth, but can also be a gold-mine--his ideas themselves eventually acquire a twilight-colour of their own, and an odour, as much of the depth as of the mould, something uncommunicative and repulsive, which blows chilly upon every passerby. The recluse does not believe that a philosopher--supposing that a philosopher has always in the first place been a recluse--ever expressed his actual and ultimate opinions in books: are not books written precisely to hide what is in us?--indeed, he will doubt whether a philosopher CAN have "ultimate and actual" opinions at all; whether behind every cave in him there is not, and must necessarily be, a still deeper cave: an ampler, stranger, richer world beyond the surface, an abyss behind every bottom, beneath every "foundation." Every philosophy is a foreground philosophy--this is a recluse's verdict: "There is something arbitrary in the fact that the PHILOSOPHER came to a stand here, took a retrospect, and looked around; that he HERE laid his spade aside and did not dig any deeper--there is also something suspicious in it." Every philosophy also CONCEALS a philosophy; every opinion is also a LURKING-PLACE, every word is also a MASK.

290. Every deep thinker is more afraid of being understood than of being misunderstood. The latter perhaps wounds his vanity; but the former wounds his heart, his sympathy, which always says: "Ah, why would you also have as hard a time of it as I have?"

291. Man, a COMPLEX, mendacious, artful, and inscrutable animal, uncanny to the other animals by his artifice and sagacity, rather than by his strength, has invented the good conscience in order finally to enjoy his soul as something SIMPLE; and the whole of morality is a long, audacious falsification, by virtue of which generally enjoyment at the sight of the soul becomes possible. From this point of view there is perhaps much more in the conception of "art" than is generally believed.

292. A philosopher: that is a man who constantly experiences, sees, hears, suspects, hopes, and dreams extraordinary things; who is struck by his own thoughts as if they came from the outside, from above and below, as a species of events and lightning-flashes PECULIAR TO HIM; who is perhaps himself a storm pregnant with new lightnings; a portentous man, around whom there is always rumbling and mumbling and gaping and something uncanny going on. A philosopher: alas, a being who often runs away from himself, is often afraid of himself--but whose curiosity always makes him "come to himself" again.

293. A man who says: "I like that, I take it for my own, and mean to guard and protect it from every one"; a man who can conduct a case, carry out a resolution, remain true to an opinion, keep hold of a woman, punish and overthrow insolence; a man who has his indignation and his sword, and to whom the weak, the suffering, the oppressed, and even the animals willingly submit and naturally belong; in short, a man who is a MASTER by nature-- when such a man has sympathy, well! THAT sympathy has value! But of what account is the sympathy of those who suffer! Or of those even who preach sympathy! There is nowadays, throughout almost the whole of Europe, a sickly irritability and sensitiveness towards pain, and also a repulsive irrestrainableness in complaining, an effeminizing, which, with the aid of religion and philosophical nonsense, seeks to deck itself out as something superior--there is a regular cult of suffering. The UNMANLINESS of that which is called "sympathy" by such groups of visionaries, is always, I believe, the first thing that strikes the eye.--One must resolutely and radically taboo this latest form of bad taste; and finally I wish people to put the good amulet, "GAI SABER" ("gay science," in ordinary language), on heart and neck, as a protection against it.

294. THE OLYMPIAN VICE.--Despite the philosopher who, as a genuine Englishman, tried to bring laughter into bad repute in all thinking minds--"Laughing is a bad infirmity of human nature, which every thinking mind will

strive to overcome" (Hobbes),--I would even allow myself to rank philosophers according to the quality of their laughing--up to those who are capable of GOLDEN laughter. And supposing that Gods also philosophize, which I am strongly inclined to believe, owing to many reasons--I have no doubt that they also know how to laugh thereby in an overman-like and new fashion--and at the expense of all serious things! Gods are fond of ridicule: it seems that they cannot refrain from laughter even in holy matters.

295. The genius of the heart, as that great mysterious one possesses it, the tempter-god and born rat-catcher of consciences, whose voice can descend into the nether-world of every soul, who neither speaks a word nor casts a glance in which there may not be some motive or touch of allurements, to whose perfection it pertains that he knows how to appear,--not as he is, but in a guise which acts as an ADDITIONAL constraint on his followers to press ever closer to him, to follow him more cordially and thoroughly;--the genius of the heart, which imposes silence and attention on everything loud and self-conceited, which smoothes rough souls and makes them taste a new longing--to lie placid as a mirror, that the deep heavens may be reflected in them;--the genius of the heart, which teaches the clumsy and too hasty hand to hesitate, and to grasp more delicately; which scents the hidden and forgotten treasure, the drop of goodness and sweet spirituality under thick dark ice, and is a divining-rod for every grain of gold, long buried and imprisoned in mud and sand; the genius of the heart, from contact with which every one goes away richer; not favoured or surprised, not as though gratified and oppressed by the good things of others; but richer in himself, newer than before, broken up, blown upon, and sounded by a thawing wind; more uncertain, perhaps, more delicate, more fragile, more bruised, but full of hopes which as yet lack names, full of a new will and current, full of a new ill-will and counter-current . . . but what am I doing, my friends? Of whom am I talking to you? Have I forgotten myself so far that I have not even told you his name? Unless it be that you have already divined of your own accord who this questionable God and spirit is, that wishes to be PRAISED in such a manner? For, as it happens to every one who from childhood onward has always been on his legs, and in foreign lands, I have also encountered on my path many strange and dangerous spirits; above all, however, and again and again, the one of whom I have just spoken: in fact, no less a personage than the God DIONYSUS, the great equivocator and tempter, to whom, as you know, I once offered in all secrecy and reverence my first-fruits--the last, as it seems to me, who has offered a SACRIFICE to him, for I have found no one who could understand what I was then doing. In the meantime, however, I have learned much, far too much, about the philosophy of this God, and, as I said, from mouth to mouth--I, the last disciple and initiate of the God Dionysus: and perhaps I might at last begin to give you, my friends, as far as I am allowed, a little taste of this philosophy? In a hushed voice, as is but seemly: for it has to do with much that is secret, new, strange, wonderful, and uncanny. The very fact that Dionysus is a philosopher, and that therefore Gods also philosophize, seems to me a novelty which is not unensnaring, and might perhaps arouse suspicion precisely among philosophers;--among you, my friends, there is less to be said against it, except that it comes too late and not at the right time; for, as it has been disclosed to me, you are loth nowadays to believe in God and gods. It may happen, too, that in the frankness of my story I must go further than is agreeable to the strict usages of your ears? Certainly the God in question went further, very much further, in such dialogues, and was always many paces ahead of me . . . Indeed, if it were allowed, I should have to give him, according to human usage, fine ceremonious tides of lustre and merit, I should have to extol his courage as investigator and discoverer, his fearless honesty, truthfulness, and love of wisdom. But such a God does not know what to do with all that respectable trumpery and pomp. "Keep that," he would say, "for thyself and those like thee, and whoever else require it! I--have no reason to cover my nakedness!" One suspects that this kind of divinity and philosopher perhaps lacks shame?--He once said: "Under certain circumstances I love mankind"--and referred thereby to Ariadne, who was present; "in my opinion man is an agreeable, brave, inventive animal, that has not his equal upon earth, he makes his way even through all labyrinths. I like man, and often think how I can still further advance him, and make him stronger, more evil, and more profound."--"Stronger, more evil, and more profound?" I asked in horror. "Yes," he said again, "stronger, more evil, and more profound; also more beautiful"--and thereby the tempter-god smiled with his halcyon smile, as though he had just paid some charming compliment. One here sees at once that it is not only shame that this divinity lacks;--and in general there are good grounds for supposing that in some things the Gods could all of them come to

us men for instruction. We men are--more human.--

296. Alas! what are you, after all, my written and painted thoughts! Not long ago you were so variegated, young and malicious, so full of thorns and secret spices, that you made me sneeze and laugh--and now? You have already doffed your novelty, and some of you, I fear, are ready to become truths, so immortal do they look, so pathetically honest, so tedious! And was it ever otherwise? What then do we write and paint, we mandarins with Chinese brush, we immortalisers of things which LEND themselves to writing, what are we alone capable of painting? Alas, only that which is just about to fade and begins to lose its odour! Alas, only exhausted and departing storms and belated yellow sentiments! Alas, only birds strayed and fatigued by flight, which now let themselves be captured with the hand--with OUR hand! We immortalize what cannot live and fly much longer, things only which are exhausted and mellow! And it is only for your AFTERNOON, you, my written and painted thoughts, for which alone I have colours, many colours, perhaps, many variegated softenings, and fifty yellows and browns and greens and reds;-- but nobody will divine thereby how ye looked in your morning, you sudden sparks and marvels of my solitude, you, my old, beloved-- EVIL thoughts!

DEFINING HAPPINESS

Catholic Encyclopedia (1913)/The Highest Good

←Good Friday **Catholic Encyclopedia**
(1913)
The Highest Good

Eastern Vicariate of the Cape of Good Hope→

"We always act with a view to some good. The good is the object which all pursue, and for the sake of which they always act", says Plato (Republic, I, vi). His disciple Aristotle repeats the same idea in other words when he declares (Ethics, I, i) that the good is "that which all aim at". This definition is, as St. Thomas observes, a posteriori. Yet, if appetibility does not constitute goodness, still it is our only means of identifying it; in practice, the good is the desirable. But experience soon teaches that all desires cannot be satisfied, that they are conflicting, and that some goods must be foregone in order to secure others. Hence the necessity of weighing the relative value of goods, of classifying them, and of ascertaining which of them must be procured even at the loss of others. The result is the division of goods into two great classes, the physical and the moral, happiness and virtue. Within either class it is comparatively easy to determine the relation of particular good things to one another, but it has proved far more difficult to fix the relative excellence of the two classes of virtue and happiness. Still the question is of supreme importance, since in it the reason and final destiny of our life is involved. As Cicero says (De Finibus, v, 6), "Summum autem bonum si ignoratur, vivendi rationem ignorari necesse est." If happiness and virtue are mutually exclusive, we have to choose between the two, and this choice is a momentous one. But their incompatibility may be only on the surface. Indeed the hope is ever recurring that the sovereign good includes both, and that there is some way of reconciling them.

It has been the task of moralists to sift the conditions on which this may be done.

- Some would reduce virtue to happiness;
- others teach that happiness is to be found in virtue;
- but, as both these solutions are ever found to be in contradiction with the facts of life, the consequent vacillations of opinion can be traced throughout the history of philosophy.

In the main, they can be classified under three heads, according as one or the other predominates, or both are made to blend: viz.:

- Eudæmonism or Utilitarianism, when the highest good is identified with happiness;
- Rational Deontologism, when the highest good is identified with virtue or duty;
- Rational Eudæmonism, or tempered Deontologism, when both virtue and happiness are combined in the highest good.

I. EUDÆMONISM

(a) Socrates (469-399 B. C.), the father of systematic Ethics, taught that happiness is the end of man; that it consists, not in external goods signs of the uncertain favours of fortune, or of the gods (*eutychia*) — but in a rational joy, which implies the renunciation of common delights (*eupraxia*). He did not, however, carry this doctrine of moderation to the degree of asceticism, but rather insisted on the cultivation of the mind as being of greater importance. Knowledge is the only virtue, ignorance the only vice. Yet, from the Dialogues of Xenophon, it is seen that he descends to the common morality of Utilitarianism.

(b) This latter phase of Socratic teaching was adopted by Aristippus of Cyrene (435-356 B. C.), who as representative of the Hedonistic School among the ancients, and holding, on the one hand, with Socrates that knowledge is virtue, and, on the other, with Protagoras, that we can know only our sensations, and not that which causes them, concluded that that which produces in us the most pleasant feelings is the highest good. Culture and virtue are desirable only as a means to this end. As pleasure is conditioned by organic states, it can be produced only by motion, which, to be pleasant, must needs be gentle; hence according to the Cyrenaics, it is not the mere absence of pain, but a transient emotion which makes man happy and constitutes his highest good.

(c) Aristotle (384-322 B. C.) admits with Socrates and the ancient philosophers generally, that the highest good is to be identified with the highest happiness; and, in determining in what this highest happiness consists, he agrees with the Cyrenaics that it is not mere passing enjoyment, but action (*en to zen kai energein*, Eth, Nic., IX, ix, 5). Still it is not any and every kind of activity that man may find agreeable which constitutes this supreme happiness, but that which is proper to him (*okeion ergon — oikeia arete*, Ibid., I, vii, 15). This cannot be merely the life which he shares with the plants and animals, or the sensibility, which he enjoys in common with the brutes, but thought, which is the distinctive characteristic of man. Moreover, as it is in the sphere of activity proper to each living being that its peculiar excellence is to be sought, it follows that man's rational activity (*psyches energeia meta logou*, Ibid., I, vii, 15) is at the same time honourable and virtuous (*psyches energeia kat areten*, loc. cit.). Since, however, there are several such activities, it must be the noblest and most perfect of these. This is none other than speculative thought, or that which has to do with the contemplation of "honourable and divine subjects" (*kalon kai theion*, Ibid., X, vii, 10), because this belongs to the noblest faculty and tends to the noblest object; because it is the most continuous, the most pleasant, the most self-sufficing (Ibid., I, x, 8).

In thus defining human happiness, Aristotle does not aim at determining which good is absolutely supreme, but only that which relatively is the highest for man in his present condition — the highest attainable in this life (*to panton akrotaton ton prakton agathon*, Ibid., I, iv, 16). Though Aristotle thus makes happiness and the highest good to consist in virtuous action, yet he does not exclude pleasure, but holds that pleasure in its keenest form springs from virtue. Pleasure completes an action, is added to it, as "to youth its bloom" (*oion tois akmaiois he ora*, Ibid., X, iv, 8). Since, therefore, Aristotle places man's highest good in his perfection, which is identical with his happiness and carries with it pleasure, he is rightly accounted a Eudæmonist, though of a nobler sort.

(d) Epicurus (circa 340-270 B. C.), whilst accepting in substance the Hedonism of the Cyrenaics, does not admit with them that the highest good lies in the pleasure of motion (*hedone en kinesei*), but rather in the pleasure of rest (*hedone kataskematike*); not in the *voluptas in motu* but in the *stabilitas voluptatis*, says Cicero (*De Finibus*, II, v, 3) — that state of deep peace and perfect contentment in which we feel secure against all the storms of life (*ataraxia*). To attain this is the paramount problem of Epicurus's philosophy, to which his empirical logic (canonics) and his theory of nature (the materialism of Democritus) are merely preliminaries. Thus the whole of his philosophy is constructed with a view to his Ethics, for which it prepares the way and which completes it.

In holding that the pleasures of the mind are preferable to voluptuousness, inasmuch as they endure, while those of the senses pass with the moment that gives them birth, he is not consistent, seeing that his materialism reduces all the operations of the mind to mere sensations. Finally, as virtue is according to him the tact which impels the wise man to do whatever contributes to his welfare, and makes him avoid the contrary, it cannot be the highest good, but only a means of realizing it. By his materialism Epicurus paved the way for modern Utilitarianism, which has assumed two forms, viz.:

(e) Individual Utilitarianism, which places man's highest good in his greatest personal welfare and pleasure. This is identical with the Greek Hedonism, and was revived in the eighteenth century by the Encyclopedists, De la Mettrie (1709-1751), Helvetius (1715-1771), Diderot (1713-1784), and De Volney (1757-1820). It was also advocated by the Sensists, Hartley (1704-1757), Priestley (1733-1804) and Hume (1711-1776); and in the nineteenth century by the German Materialists, Vogt (1817-1895), Moleschott (1822-1893), and Büchner (1824-1899);

(f) Social Utilitarianism, which is mainly of English origin. In its earliest stage, with Richard Cumberland (1632-1718), and Anthony Cooper, Earl of Shaftesbury (1671-1718), it still retained a somewhat subjective character, and placed the highest good in the practice of social benevolence. With Jeremy Bentham (1748-1832) and John Stuart Mill (1806-1873), it becomes wholly objective. The highest good, so they say, cannot be the happiness of the individual, but the happiness of the many, "the greatest happiness of the greatest number". Stated in these terms, the proposition is merely a truism. That in general, the happiness of a community is superior to the happiness of one of its members, is obvious; but, when it comes to be a personal affair, the individual is no longer a part of the whole, but one party pitted against others, and it is by no means evident, from the positivistic point of view, that his personal happiness is not for him the highest good.

(g) This passage from self to non-self, from the individual to the community, Herbert Spencer (1820-1903) attempted to derive from the evolutionary principle of "the survival of the fittest". Those individuals have evidently a better chance to survive who oppose their enemies as a body, and therefore who live in societies (flocks, herds, human associations); and therefore, again, the social instincts are destined to survive and grow stronger, while the individualistic ones cannot but disappear. The highest good here is not the happiness of the individual, not even the happiness of the present generation, but the sum total of the conditions which make possible the survival and the constant progress of mankind at large. Hence in a system of elaborate synthetic philosophy Spencer discusses at great length the laws of life and those conditions of psychology and social existence from which, as from a prearranged premise, he gathers "The Data of Ethics", or Ethics emancipated from the notion of divine legislation.

II. DEONTOLOGISM

Under this head may be classed systems which place the highest human good in the conformity of conduct with reason. It assumes an exaggerated or tempered form, according as it excludes or admits regard for human perfection and happiness as one of the elements of morality.

(a) Plato, in common with Socrates and the minor Socratic schools, holds that happiness is the supreme and ultimate object of human endeavour, and that this happiness is identical with the highest good. But when he comes to determine in what this good or happiness consists, he does so in accordance with the presuppositions of his philosophical system. The soul in its true essence is declared to be an incorporeal spirit destined for the intuition of the Idea; hence its ultimate end and supreme good is to be attained by withdrawing from the life of sense and retiring into pure contemplation of the Idea, which is identical with God. Man must, therefore, rise to God and find his chief good in Him. This may be considered the highest good in the objective order, and is found inculcated in those passages of this philosopher's writings in which the solution of the supreme problem of life is sought in flight from sensuality (cf. *Theæt.*, 176, A; *Phædo*, 64, E; *Republic*, VII, 519, C sqq., apud Zeller, pp. 435-444). But inasmuch as this is practically unattainable in this life, man is told that the highest good here is to be found in making himself like God, and that this is to be brought about by the knowledge and the enthusiastic love of God, as the Supreme Good. In the knowledge, therefore, and love of God as the Supreme Good consists man's highest good in the subjective order. This is brought out in those passages in which even sensuous beauty is described as worthy of love, and external activity, sensible pleasure, is included among the component elements of the highest good (cf. *Republic*, X, 603, E sqq.; *Phil.*, 28, A sqq.; *Tim.*, 59, C).

(b) The Stoic school was founded by Zeno of Citium (350-258 B. C.). According to its followers, the highest purpose (good) of human life is not to be found in contemplation (*theoria*), as Plato would have it, but in action. To live according to nature (*homologoumenos te physei zen*) was their supreme rule of conduct. By this they did not mean that individual nature of man, but the eternal and divine law which manifests itself in nature as the measure to which all things in the universe should conform their action. For man to live according to nature, therefore, means to conform his will to the divine will, and in this consists virtue. Virtue alone is good in the highest sense of the word, and virtue alone is sufficient for happiness. As this law imposes itself through reason, the system is rightly called rational Deontology.

(c) Kant agrees with the Stoics in placing the essence of the highest good in virtue, and not in happiness. Yet he thinks our conception of it is incomplete unless it is made to include happiness as well. The highest good may mean either the Supreme (*supremum*) or the Complete (*consummatum*). The Supreme is a condition which is itself unconditioned, or is not subordinate to anything else (*originarium*). The Complete, again, is a whole which is not itself a part of a larger whole of the same kind (*perfectissimum*). Virtue, or that disposition to act in conformity with the moral law, is not dependent on happiness, but itself makes man worthy of happiness. It is, therefore, the highest good, the supreme condition of whatever can be regarded as desirable. But it is not the whole, nor the supreme good, which finite rational beings crave; the complete good includes happiness. Hence the highest conceivable good must consist in the union of virtue and happiness proportioned to morality.

This is what Kant means by the whole or complete good. Of its two elements, virtue, having no higher condition and being itself the condition of happiness, is the supreme good. Happiness, however, while it is agreeable to the person who possesses it, is not good in itself and in all respects; it is good only under the condition that a man's conduct is in conformity with the moral law. This is why Kant was wont to say that "nothing can be called good without qualification, but good will"; and since the best it can do in this life is to strive after holiness, the struggle between the desire to obey and the impulse to transgress must continue for ever, making the highest good in this life unattainable.

III. RATIONAL EUDÆMONISM OR TEMPERED DEONTOLOGISM

Christian philosophers, in dealing with the problem of the highest good, have necessarily kept in view the teachings of Faith; still they base their solution of it on motives of reason. Their system is neither strictly deontologico-rational, nor yet altogether eudemonistic, but a consistent blending of both. The ultimate end of man is to be placed in perfect rational activity, in ultimate perfection, and in happiness, not as in three different things, but as in one and the self-same, since the three conceptions are resolvable into one another, and each of them denotes a goal of human tendency, a limit beyond which no desire remains to be satisfied. Though they differ somewhat in their several ways of formulating it, at bottom they all agree:

- that in the blissful possession of God is to be found the rightful object of reason (man's deontologico-rational end), and of free will (his eudæmonistic end);
- that this eudæmonistic end — the perfect satisfaction of the will in the possession of God — is not merely an accidental result of the former, but is the positive determination of God, the author of our nature;
- that this eudæmonistic end may not be intended by the will for its own sake, to the exclusion of the deontologico-rational end, which, by its nature, it presupposes, and to which it is subordinated.

It is St. Thomas Aquinas who best harmonized this system with revelation. His teaching may be summarized thus:

(a) Man's highest happiness does not consist in pleasure, but in action, since, in the nature of things, action is not for pleasure, but pleasure for action. This activity, on which man's happiness rests, must, on the one hand, be the noblest and highest of which his nature is capable, and, on the other, it must be directed toward the noblest and the highest object.

(b) This noblest and highest object of human activity is not that of the will, which merely follows upon and is conditioned by knowledge; it must rather be knowledge itself. Consequently, the highest happiness of man consists in the knowledge of the highest truth, which is God. With the knowledge of God must, of course, be joined the love of God; but this love is not the essential element of perfect happiness; it is merely a necessary complement of it (*Summa Theol.*, I-II, Q. iii, a. 2, c; *Con. Gen.*, III, xxv, xxvi).

(c) Since the knowledge of God can be acquired in three ways — by demonstration, by faith, and by intuition — the further question arises: which of these three kinds of knowledge is the foundation of man's highest happiness? Not knowledge by demonstration, for happiness must be something universal and attainable by all men, whereas only a few can arrive at this knowledge by demonstration; neither can knowledge by faith be a basis for perfect happiness, seeing that this consists chiefly in the activity of the intellect, whilst in faith the will claims for itself the principal

part, inasmuch as the will must here determine the intellect to give its assent. Consequently happiness can consist only in the intuitive knowledge of God; and since this is attainable only in the next life, it follows that the ultimate destiny of man — and hence his highest good — reaches beyond time into eternity. It must be everlasting, otherwise it would not be perfect (Con. Gent., III, xxxviii, sqq.).

(d) This end is not merely a subjective one which the reason imposes upon itself. Just because it is an activity, it involves relation to some external object. The intellect essentially represents a truth distinct from itself, as the act of the will is an inclination towards some good not identical with itself. The truth to be represented, therefore, and the good to be attained or possessed, are objects to which happiness refers as to further ends, just as the image has reference to a model and motion to a goal. Truth, therefore, and good are objective ends to which formal happiness corresponds as a subjective end. The absolutely ultimate end, therefore, is in the objective order, beyond which nothing remains to be known and desired, and which, when it is known and possessed, gives rest to the rational faculties. This can be nothing else than the infinite truth and the infinite good, which is God. Hence the system is not a purely deontologico-rational one, constituting the reason a law to itself, the observance of which law would be the highest good.

(e) Still less is it purely eudæmonistic, since the ultimate end and highest good does not coincide with subjective happiness as Hedonism teaches, but with the object of the highest acts of contemplation and love. This object is God, not merely as beatifying us, but as the Absolute Truth and Goodness, infinitely perfect in itself.

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M. F. DINNEEN

DEFINING EMOTIONS

Catholic Encyclopedia (1913)/Passions

←Passion Plays **Catholic Encyclopedia** Passion Sunday→
(1913)
Passions
by Arthur Devine

By *passions* we are to understand here motions of the sensitive appetite in man which tend towards the attainment of some real or apparent good, or the avoidance of some evil. The more intensely the object is desired or abhorred, the more vehement is the passion. St. Paul thus speaks of them: "When we were in the flesh, the passions of sin, which were by the law, did work in our members, to bring forth fruit unto death" (Rom., vii, 5). They are called passions because they cause a transformation of the normal condition of the body and its organs which often appears externally. It may also be noted that there is in man a rational appetite as well as a sensitive appetite. The rational appetite is the will; and its acts of love, joy, and sorrow are only called passions metaphorically, because of their likeness to the acts of the sensitive appetite. They are classified by St. Thomas and the Schoolmen as follows: The sensitive appetite is twofold, concupiscible and irascible, specifically distinct because of their objects. The object of the concupiscible is real or apparent good, and suitable to the sensitive inclination. The object of the irascible appetite is good qualified by some special difficulty in its attainment. The chief passions are eleven in number:

- Six in the concupiscible appetite — namely, joy or delight, and sadness, desire and aversion or abhorrence, love and hatred — and
- five in the irascible — hope and despair, courage and fear, and anger.

To explain the passions in their relation to virtue it is necessary to consider them first in the moral order. Some moralists have taught that all passions are good if kept under subjection, and all bad if unrestrained. The truth is that, as regards morality, the passions are indifferent, that is, neither good nor bad in themselves. Only in so far as they are voluntary do they come under the moral law. Their motions may sometimes be antecedent to any act of the will; or they may be so strong as to resist every command of the will. The feelings in connexion with the passions may be lasting, and not always under the control of the will, as for example the feelings of love, sorrow, fear, and anger, as experienced in the sensitive appetite; but they can never be so strong as to force the consent of our free will unless they first run away with our reason.

These involuntary motions of the passions are neither morally good nor morally bad. They become voluntary in two ways:

- by the command of the will, which can command the inferior powers of the sensitive appetite and excite its emotions;
- by nonresistance, for the will can resist by refusing its consent to their promptings, and it is bound to resist when their promptings are irrational and inordinate. When voluntary, the passions may increase the intensity of the acts of the will, but they may also lessen their morality by affecting its freedom.

In regard to virtue the passions may be considered in the three stages of the spiritual life:

- first, its acquisition;
 - secondly, its increase;
 - thirdly, its perfection.
-

When regulated by reason, and subjected to the control of the will, the passions may be considered good and used as means of acquiring and exercising virtue. Christ Himself, in whom there could be no sin nor shadow of imperfection, admitted their influence, for we read that He was sorrowful even unto death (Mark, xiv, 34), that He wept over Jerusalem (Luke, xix, 41), and at the tomb of Lazarus He groaned in the spirit, and troubled Himself (John, xi, 33). St. Paul bids us rejoice with them that rejoice, and weep with them that weep (Rom., xii, 15). The sensitive is given to man by God, and therefore its acts have to be employed in His service. Fear of death, judgement, and hell prompts one to repentance, and to the first efforts in acquiring virtue. Thoughts of the mercy of God produce hope, gratitude, and correspondence. Reflections on the sufferings of Christ moves to sorrow for sin, and to compassion and love for Him in His sufferings. The moral virtues are to regulate the passions and employ them as aids in the progress of spiritual life. A just man at times experiences great joy, great hope and confidence, and other feelings in performing duties of piety, and also great sensible sorrow, as well as sorrow of soul, for his sins, and he is thus confirmed in his justice. He can also merit constantly by restraining and purifying his passions. The saints who reached the exalted state of perfection, have retained their capacity for all human emotions and their sensibility has remained subject to the ordinary laws; but in them the love of God has controlled the mental images which excite the passions and directed all their emotions to His active service. It has been justly said that the saint dies, and is born again: he dies to an agitated, distracted and sensual life, by temperance, continency, and austerity, and is born to a new and transformed life. He passes through what St. John calls "the night of the senses", after which his eyes are opened to a clearer light. "The saint will return later on to sensible objects to enjoy them in his own way, but far more intensely than other men" (H. Joly, "Psychology of the Saints", 128). Accordingly we can understand how the passions and the emotions of the sensitive appetite may be directed and devoted to the service of God, and to the acquisition, increase, and perfection of virtue.

All admit that the passions, unless restrained, will carry a man beyond the bounds of duty and honesty, and plunge him into sinful excesses. Unbridled passions cause all the moral ruin and most of the physical and social evils that afflict men. There are two adverse elements in man contending for the mastery, and designated by St. Paul as "the flesh" and "the spirit" (Gal., v, 17). These two are often at variance with each other in inclinations and desires. To establish and preserve harmony in the individual, it is necessary that the spirit rule, and that the flesh be made obedient to it. The spirit must set itself free from the tyranny of the passions in the flesh. It must free itself by the renunciation of all those unlawful things which our lower nature craves, that right order may be established and preserved in the relations of our higher and lower nature. The flesh and its appetites, if allowed, will throw everything into confusion and vitiate our whole nature by sin and its consequences. It is therefore man's duty to control and regulate it by reason and a strong will aided by God's grace.

Arthur Devine.

DEFINING TRUE KNOWLEDGE

EMOTIONAL EFFECTS AFTER KNOWLEDGE CREATION

Human All-Too-Human

HUMAN, ALL TOO HUMAN, 'A Book For Free Spirits' Part I

(1914)

by Friedrich Nietzsche, translated by Helen Zimmern

1914

Introduction by J. M. Kennedy

NIETZSCHE'S essay, *Richard Wagner in Bayreuth*, appeared in 1876, and his next publication was his present work, which was issued in 1878. A comparison of the books will show that the two years of meditation intervening had brought about a great change in Nietzsche's views, his style of expressing them, and the form in which they were cast. The Dionysian, overflowing with life, gives way to an Apollonian thinker with a touch of pessimism. The long essay form is abandoned, and instead we have a series of aphorisms, some tinged with melancholy, others with satire, several, especially towards the end, with Nietzschean wit at its best, and a few at the beginning so very abstruse as to require careful study.

Since the Bayreuth festivals of 1876, Nietzsche had gradually come to see Wagner as he really was. The ideal musician that Nietzsche had pictured in his own mind turned out to be nothing more than a rather dilettante philosopher, an opportunistic decadent with a suspicious tendency towards Christianity. The young philosopher thereupon proceeded to shake off the influence which the musician had exercised upon him. He was successful in doing so, but not without a struggle, just as he had formerly shaken off the influence of Schopenhauer. Hence he writes in his autobiography : ^[1] "*Human, all-too-Human* is the monument of a crisis. It is entitled : 'A book for *free* spirits', and almost every line in it represents a victory—in its pages I freed myself from everything foreign to my real nature. Idealism is foreign to me : the title says, 'Where *you* see ideal things, I see things which are only human alas ! all-too-human ! I know man *better*—the term 'free spirit' must here be understood in no other sense than this : a *freed* man, who has once more taken possession of himself."

The form of this book will be better understood when it is remembered that at this period Nietzsche was beginning to suffer from stomach trouble and headaches. As a cure for his complaints, he spent his time in travel when he could get a few weeks' respite from his duties at Basel University ; and it was in the course of his solitary walks and hill-climbing tours that the majority of these thoughts occurred to him and were jotted down there and then. A few of them, however, date further back, as he tells us in the preface to the second part of this work. Many of them, he says, occupied his mind even before he published his first book, *The Birth of Tragedy*, and several others, as we learn from his notebooks and posthumous writings, date from the period of the *Thoughts out of Season*.

It must be clearly understood, however, that Nietzsche's disease must not be looked upon in the same way as that of an ordinary man. People are inclined to regard a sick man as rancorous ; but any one who fights with and conquers his disease, and even exploits it, as Nietzsche did, benefits thereby to an extraordinary degree. In the first place, he has passed through several stages of human psychology with which a healthy man is entirely unacquainted ; *e.g.* he has learnt by introspection the spiteful and revengeful spirit of the sick man and his religion. Secondly, in his moments of freedom from pain and gloom his thoughts will be all the more brilliant.

In support of this last statement, one instance may be selected out of hundreds that could be adduced. Heinrich Heine spent the greater part of his life in exile from his native country, tortured by headaches, and finally dying in a foreign land as the result of a spinal disease. His splendid works were composed in his moments of respite from illness, and during the last years of his life, when his health was at its worst, he gave to the world his famous *Romancero*. We would likewise do well to recollect Goethe's saying :

Zart Gedicht, wie Regenbogen,
Wird nur auf dunkelm Grund gezogen.^[21]

Thus neither the form of this book—so startling at first to those who have been brought up in the traditions of our own school—nor the fact that the writer was in poor health (the average Englishman may be reminded that there may be *mens nulla in corpore sano*) should deter us from perusing it as carefully as we can. We may be sure of an adequate reward ; for here no abstract philosopher is discoursing, no harmless dealer in "isms" and "ologies"—but a man of the world, who had previously to writing come into contact with some of the best men and women of his time ; who had travelled a great deal, and especially in the south ; and who had finally even reached the much-beloved home of all great Germans : Ancient Greece. From Greece Nietzsche brought back his standard measure, his infallible scales, which may be compared to those of the Goddess of Justice, and in which modern institutions, parliaments, states, and religions were weighed by him, found wanting, and severely censured.

Is Hellenism, however, an ideal suitable for everybody ? Does not a commercial country like ours still stand in need of the earnest gloom of Puritanism rather than of the dazzling sun of Hellenic beauty ? The darker and more strict creed has at least the advantage of keeping men in the narrow path leading to duty and honesty, and may help to turn them away from the success-at-all-costs hunt ; while, on the other hand, the more human and beautiful ideal, if preached to the wrong congregation, may destroy the smaller virtues of Christianity and render it impossible to rear the higher virtues of Hellenism in its stead. The danger is worth pointing out : nothing, indeed, could be more fatal than a proposal which the Editor of this series has had from an American publisher, viz., to bring out a "Nietzsche in a Nutshell, so that the general public may know what it is all about." No ; it might be better that business people—the less educated of them, at all events—should not know what it is all about. The great exhaustion, necessarily brought about by the modern commercial death-and-life struggle for existence, is the worst possible condition in which a man can read Nietzsche. The aphorisms in this book are essentially for an order of minds which can afford *otium*; but *sine dignitate* if possible—for the British "dignity" is another obstacle in the path leading to a complete understanding of our author. Indeed, these aphorisms would be much out of place, and might be quite false, if applied in other directions. Take, for example, No. 434, containing the now celebrated dictum that women always intrigue in secret against the higher souls of their husbands. While this statement is correct as applied to artists, it is obviously not intended for business-men, whose wives in many instances spur them on—not to philosophy or art, but to money, comfort, and worldly success.

But statesmen and politicians, who, no matter what may be thought to the contrary, require new ideas occasionally, will find much to interest them here. They seem to have a certain difficulty nowadays in meeting the argument of Socialism. In aphorism 451, Nietzsche gives them a hint. The governing classes, says he, can, if they choose, treat all men as equals, and proclaim the establishment of equal rights :

so far a socialistic mode of thought which is based on *justice* is possible ; but, as has been said, only within the ranks of the governing classes, which in this case *practises* justice with sacrifices and abnegations. On the other hand, to *demand* equality of rights, as do the Socialists of the subject caste, is by no means the outcome of justice, but of covetousness. If you expose bloody pieces of flesh to a beast, and then withdraw them again until it finally begins to roar, do you think that the roaring implies justice?

Theologians on the other hand, as may be expected, will find no such ready help in their difficulties from Nietzsche. They must, on the contrary, be on their guard against so alert an adversary—a duty which they are apparently not going to shirk ; for theologians are amongst the most ardent students of Nietzsche in this country. Their attention

may therefore be drawn to aphorism 630 of this book, dealing with convictions and their origin, which will no doubt be successfully refuted by the defenders of the true faith. In fact, there is not a single paragraph in the book that does not deserve careful study by all serious thinkers.

On the whole, however, this is a calm book, and those who are accustomed to Nietzsche the outspoken Immoralist, may be somewhat astonished at the calm tone of the present volume. The explanation is that Nietzsche was now just beginning to walk on his own philosophical path. His life-long aim, the uplifting of the type man, was still in view, but the way leading towards it was once more uncertain. Hence the peculiarly calm, even melancholic, and what Nietzsche himself would call Apollonian, tinge of many of these aphorisms, so different from the style of his earlier and later writings. For this very reason, however, the book may appeal all the more to English readers, who are of course more Apollonian than Dionysian. Nietzsche is feeling his way, and these aphorisms represent his first steps. As such—besides having a high intrinsic value of themselves—they are enormous aids to the study of his character and temperament.

J. M. KENNEDY.

Preface

1.

I HAVE been told frequently, and always with great surprise, that there is something common and distinctive in all my writings, from the *Birth of Tragedy* to the latest published *Prelude to a Philosophy of the Future*. They all contain, I have been told, snares and nets for unwary birds, and an almost perpetual unconscious demand for the inversion of customary valuations and valued customs. What? *Everything* only —human—all-too-human? People lay down my writings with this sigh, not without a certain dread and distrust of morality itself, indeed almost tempted and encouraged to become advocates of the *worst* things : as being perhaps only the *best* disparaged ? My writings have been called a school of suspicion and especially of disdain, more happily, also, a school of courage and even of audacity. Indeed, I myself do not think that any one has ever looked at the world with such a profound suspicion; and not only as occasional Devil's Advocate, but equally also, to speak theologically, as enemy and impeacher of God ; and he who realises something of the consequences involved, in every profound suspicion, something of the chills and anxieties of loneliness to which every uncompromising *difference of outlook* condemns him who is affected therewith, will also understand how often I sought shelter in some kind of reverence or hostility, or scientificity or levity or stupidity, in order to recover from myself, and, as it were, to obtain temporary self-forgetfulness ; also why, when I did not find what I *needed*, I was obliged to manufacture it, to counterfeit and to imagine it in a suitable manner (and what else have poets ever done? And for what purpose has all the art in the world existed ?). What I always required most, however, for my cure and self-recovery, was the belief that I was *not* isolated in such circumstances, that I did not *see* in an isolated manner—a magic suspicion of relationship and similarity to others in outlook and desire, repose in the confidence of friendship, a blindness in both parties without suspicion or note of interrogation, an enjoyment of foregrounds, and surfaces of the near and the nearest, of all that has colour, epidermis, and outside appearance. Perhaps I might be reproached in this respect for much " art " and fine false coinage ; for instance, for voluntarily and knowingly shutting my eyes to Schopenhauer's blind will to morality at a time when I had become sufficiently clear-sighted about morality ; also for deceiving myself about Richard Wagner's incurable romanticism, as if it were a beginning and not an end ; also about the Greeks, also about the Germans and their future and there would still probably be quite a long list of such alsos? Supposing however, that this were all true and that I were reproached with good reason, what do *you* know, what *could* you know as to how much artifice of self-preservation, how much rationality and higher protection there is in such self-deception,—and how much falseness I still *require* in order to allow myself again and again the luxury of *my* sincerity ? . . . In short, I still live ; and life, in spite of ourselves, is not devised by morality ; it *demand*s illusion, it *lives* by illusion . . . but—There ! I am already beginning again and doing what I have always done, old immoralist and bird-catcher that I am,—I am talking un-morally, ultra-morally, " beyond good and evil " ? . . .

2.

Thus then, when I found it necessary, I *invented* once on a time the " free spirits," to whom this discouragingly encouraging book with the title *Human, all-too-Human*, is dedicated. There are no such " free spirits " nor have there been such, but, as already said, I then required them for company to keep me cheerful in the midst of evils (sickness, loneliness, foreignness, —*acedia*, inactivity) as brave companions and ghosts with whom I could laugh and gossip when so inclined and send to the devil when they became bores,—as compensation for the lack of friends. That such free spirits *will be possible* some day, that our Europe *will* have such bold and cheerful wights amongst her sons of to-morrow and the day after to-morrow, actually and bodily, and not merely, as in my case, as the shadows of a hermit's phantasmagoria— I should be the last to doubt thereof. Already I see them *coming*, slowly, slowly ; and perhaps I am doing something to hasten their coming when I describe in advance under what auspices I *see* them originate, and upon what paths I *see* them come.

3.

One may suppose that a spirit in which the type " free spirit " is to become fully mature and sweet, has had its decisive event in a *great emancipation*, and that it was all the more fettered previously and apparently bound for ever to its corner and pillar. What is it that binds most strongly ? What cords are almost unrendable? In men of a lofty and select type it will be their duties ; the reverence which is suitable to youth, respect and tenderness for all that is time-honoured and worthy, gratitude to the land which bore them, to the hand which led them, to the sanctuary where they learnt to adore,—their most exalted moments themselves will bind them most effectively, will lay upon them the most enduring obligations. For those who are thus bound the great emancipation comes suddenly, like an earthquake ; the young soul is all at once convulsed, unloosened and extricated—it does not itself know what is happening. An impulsion and compulsion sway and over-master it like a command ; a will and a wish awaken, to go forth on their course, anywhere, at any cost ; a violent, dangerous curiosity about an undiscovered world flames and flares in every sense. "Better to die than live *here*"—says the imperious voice and seduction, and this " here," this " at home " is all that the soul has hitherto loved ! A sudden fear and suspicion of that which it loved, a flash of disdain for what was called its " duty," a rebellious, arbitrary, volcanically throbbing longing for travel, foreignness, estrangement, coldness, disenchantment, glaciation, a hatred of love, perhaps a sacrilegious clutch and look *backwards*, to where it hitherto adored and loved, perhaps a glow of shame at what it was just doing, and at the same time a rejoicing *that* it was doing it, an intoxicated, internal, exulting thrill which betrays a triumph —a triumph? Over what? Over whom? An enigmatical, questionable, doubtful triumph, but the *first* triumph nevertheless ;—such evil and painful incidents belong to the history of the great emancipation. It is, at the same time, a disease which may destroy the man, this first outbreak of power and will to self-decision, self-valuation, this will to *free* will ; and how much disease is manifested in the wild attempts and eccentricities by which the liberated and emancipated one now seeks to demonstrate his mastery over things ! He roves about raging with unsatisfied longing ; whatever he captures has to suffer for the dangerous tension of his pride ; he tears to pieces whatever attracts him. With a malicious laugh he twirls round whatever he finds veiled or guarded by a sense of shame; he tries how these things look when turned upside down. It is a matter of arbitrariness with him, and pleasure in arbitrariness, if he now perhaps bestow his favour on what had hitherto a bad repute,—if he inquisitively and temptingly haunt what is specially forbidden. In the background of his activities and wanderings —for he is restless and aimless in his course as in a desert—stands the note of interrogation of an increasingly dangerous curiosity. " Cannot *all* valuations be reversed? And is good perhaps evil? And God only an invention and artifice of the devil? Is everything, perhaps, radically false? And if we are the deceived, are we not thereby also deceivers? *Must* we not also be deceivers?"—Such thoughts lead and mislead him more and more, onward and away. Solitude encircles and engirdles him, always more threatening, more throttling, more heart-oppressing, that terrible goddess and *mater sæva cupidinum*—but who knows nowadays what *solitude* is ? ...

4.

From this morbid solitariness, from the desert of such years of experiment, it is still a long way to the copious, overflowing safety and soundness which does not care to dispense with disease itself as an instrument and angling-hook of knowledge;—to that *mature* freedom of spirit which is equally self-control and discipline of the heart, and gives access to many and opposed modes of thought ;—to that inward comprehensiveness and daintiness of superabundance, which excludes any danger of the spirit's becoming enamoured and lost in its own paths, and lying intoxicated in some corner or other ; to that excess of plastic, healing, formative, and restorative powers, which is exactly the sign of *splendid* health, that excess which gives the free spirit the dangerous prerogative of being entitled to live by *experiments* and offer itself to adventure ; the free spirit's prerogative of mastership ! Long years of convalescence may lie in between, years full of many-coloured, painfully-enchanting magical transformations, curbed and led by a tough *will to health*, which often dares to dress and disguise itself as actual health. There is a middle condition therein, which a man of such a fate never calls to mind later on without emotion ; a pale, delicate light and a sunshine-happiness are peculiar to him, a feeling of bird-like freedom, prospect, and haughtiness, a *tertium quid* in which curiosity and gentle disdain are combined. A " free spirit "—this cool expression does good in every condition, it almost warms. One no longer lives, in the fetters of love and hatred, without Yea, without Nay, voluntarily near, voluntarily distant, preferring to escape, to turn aside, to flutter forth, to fly up and away; one is fastidious like every one who has once seen an immense variety *beneath* him,—and one has become the opposite of those who trouble themselves about things which do not concern them. In fact, it is nothing but things which now concern the free spirit,—and how many things!—which no longer *trouble* him!

5

A step further towards recovery, and the free spirit again draws near to life ; slowly, it is true, and almost stubbornly, almost distrustfully. Again it grows warmer around him, and, as it were, yellower ; feeling and sympathy gain depth, thawing winds of every kind pass lightly over him. He almost feels as if his eyes were now first opened to what is *near*. He marvels and is still ; where has he been ? The near and nearest things, how changed they appear to him ! What a bloom and magic they have acquired meanwhile ! He looks back gratefully,—grateful to his wandering, his austerity and self-estrangement, his far-sightedness and his bird-like flights in cold heights. What a good thing that he did not always stay "at home," "by himself," like a sensitive, stupid tenderling. He has been *beside himself*, there is no doubt. He now sees himself for the first time,—and what surprises he feels thereby ! What thrills unexperienced hitherto ! What joy even in the weariness, in the old illness, in the relapses of the convalescent! How he likes to sit still and suffer, to practise patience, to lie in the sun ! Who is as familiar as he with the joy of winter, with the patch of sunshine upon the wall ! They are the most grateful animals in the world, and also the most unassuming, these lizards of convalescents with their faces half-turned towards life once more :—there are those amongst them who never let a day pass without hanging a little hymn of praise on its trailing fringe. And, speaking seriously, it is a radical *cure* for all pessimism (the well-known disease of old idealists and falsehood-mongers) to become ill after the manner of these free spirits, to remain ill a good while, and then grow well (I mean " better") for a still longer period. It is wisdom, practical wisdom, to prescribe even health for one's self for a long time only in small doses.

6.

About this time it may at last happen, under the sudden illuminations of still disturbed and changing health, that the enigma of that great emancipation begins to reveal itself to the free, and ever freer, spirit,—that enigma which had hitherto lain obscure, questionable, and almost intangible, in his memory. If for a long time he scarcely dared to ask himself, "Why so apart? So alone? denying everything that I revered? denying reverence itself? Why this hatred, this suspicion, this severity towards my own virtues ? " —he now dares and asks the questions aloud, and already hears something like an answer to them— "Thou shouldst become master over thyself and master also of thine own virtues. Formerly *they* were thy masters ; but they are only entitled to be thy tools amongst other tools. Thou shouldst obtain power over thy pro and contra, and learn how to put them forth and withdraw them again in accordance with thy higher purpose. Thou shouldst learn how to take the proper perspective of every valuation—the shifting, distortion, and apparent teleology of the horizons and everything that belongs to perspective ; also the amount of

stupidity which opposite values involve, and all the intellectual loss with which every pro and every contra has to be paid for. Thou shouldst learn how much *necessary* injustice there is in every for and against, injustice as inseparable from life, and life itself as *conditioned* by the perspective and its injustice. Above all thou shouldst see clearly where the injustice is always greatest :—namely, where life has developed most punily, restrictedly, necessitously, and incipiently, and yet cannot help regarding *itself* as the purpose and standard of things, and for the sake of self-preservation, secretly, basely, and continuously wasting away and calling in question the higher, greater, and richer,—thou shouldst see clearly the problem of gradation of rank, and how power and right and amplitude of perspective grow up together. Thou shouldst— But enough ; the free spirit *knows* henceforth which " thou shalt " he has obeyed, and also what he *can* now *do*, what he only now—*may do*. . . .

7.

Thus doth the free spirit answer himself with regard to the riddle of emancipation, and ends therewith, while he generalises his case, in order thus to decide with regard to his experience. "As it has happened to *me!*" he says to himself, "so must it happen to every one in whom a *mission* seeks to embody itself and to 'come into the world.' " The secret power and necessity of this mission will operate in and upon the destined individuals like an unconscious pregnancy,—long before they have had the mission itself in view and have known its name. Our destiny rules over us, even when we are not yet aware of it ; it is the future that makes laws for our to-day. Granted that it is *the problem of the gradations of rank*, of which we may say that it is *our* problem, we free spirits ; now only in the midday of our life do we first understand what preparations, détours, tests, experiments, and disguises the problem needed, before it *was permitted* to rise before us, and how we had first to experience the most manifold and opposing conditions of distress and happiness in soul and body, as adventurers and circumnavigators of the inner world called " man," as surveyors of all the "higher" and the "one-above-another," also called "man"—penetrating everywhere, almost without fear, rejecting nothing, losing nothing, tasting everything, cleansing everything from all that is accidental, and, as it were, sifting it out —until at last we could say, we free spirits, " Here—a *new* problem ! Here a long ladder, the rungs of which we ourselves have sat upon and mounted,—which we ourselves at some time have *been!* Here a higher place, a lower place, an under-us, an immeasurably long order, a hierarchy which we *see* ; here—*our* problem ! "

8.

No psychologist or augur will be in doubt for a moment as to what stage of the development just described the following book belongs (or is assigned to). But where are these psychologists nowadays ? In France, certainly ; perhaps in Russia ; assuredly not in Germany. Reasons are not lacking why the present-day Germans could still even count this as an honour to them—bad enough, surely, for one who in this respect is un-German in disposition and constitution ! This *German* book, which has been able to find readers in a wide circle of countries and nations—it has been about ten years going its rounds—and must understand some sort of music and piping art, by means of which even coy foreign ears are seduced into listening,—it is precisely in Germany that this book has been most negligently read, and worst *listened to* ; what is the reason ? " It demands too much," I have been told, " it appeals to men free from the pressure of coarse duties, it wants refined and fastidious senses, it needs superfluity— superfluity of time, of clearness of sky and heart, of *otium* in the boldest sense of the term :—purely good things, which we Germans of to-day do not possess and therefore cannot give." After such a polite answer my philosophy advises me to be silent and not to question further ; besides, in certain cases, as the proverb points out, one only *remains* a philosopher by being— silent. ^[3]

NICE, Spring 1886.

FIRST DIVISION - First And Last Things.

1.

CHEMISTRY OF IDEAS AND SENSATIONS.—Philosophical problems adopt in almost all matters the same form of question as they did two thousand years ago ; how can anything spring from its opposite ? for instance, reason out of unreason, the sentient out of the dead, logic out of unlogic, disinterested contemplation out of covetous willing, life for others out of egoism, truth out of error ? Metaphysical philosophy has helped itself over those difficulties hitherto by denying the origin of one thing in another, and assuming a miraculous origin for more highly valued things, immediately out of the kernel and essence of the " thing in itself." Historical philosophy, on the contrary, which is no longer to be thought of as separate from physical science, the youngest of all philosophical methods, has ascertained in single cases (and presumably this will happen in everything) that there are no opposites except in the usual exaggeration of the popular or metaphysical point of view, and that an error of reason lies at the bottom of the opposition : according to this explanation, strictly understood, there is neither an unegoistical action nor an entirely disinterested point of view, they are both only sublimations in which the fundamental element appears almost evaporated, and is only to be discovered by the closest observation. All that we require, and which can only be given us by the present advance of the single sciences, is a *chemistry* of the moral, religious, æsthetic ideas and sentiments, as also of those emotions which we experience in ourselves both in the great and in the small phases of social and intellectual intercourse, and even in solitude ; but what if this chemistry should result in the fact that also in this case the most beautiful colours have been obtained from base, even despised materials ? Would many be inclined to pursue such examinations ? Humanity likes to put all questions as to origin and beginning out of its mind ; must one not be almost dehumanised to feel a contrary tendency in one's self?

2.

INHERITED FAULTS OF PHILOSOPHERS.—All philosophers have the common fault that they start from man in his present state and hope to attain their end by an analysis of him. Unconsciously they look upon " man " as an *æterna veritas*, as a thing unchangeable in all commotion, as a sure measure of things. Everything the philosopher has declared about man is, however, at bottom no more than a testimony as to the man of a *very limited* period of time. Lack of historical sense is the family failing of all philosophers; many, without being aware of it, even take the most recent manifestation of man, such as has arisen under the impress of certain religions, even certain political events, as the fixed form from which one has to start out. They will not learn that man has become, that the faculty of cognition has become; while some of them would have it that the whole world is spun out of this faculty of cognition. Now, everything *essential* in the development of mankind took place in primeval times, long before the four thousand years we more or less know about; during these years mankind may well not have altered very much. But the philosopher here sees "instincts" in man as he now is and assumes that these belong to the unalterable facts of mankind and to that extent could provide a key to the understanding of the world in general: the whole of teleology is constructed by speaking of the man of the last four millennia as of an eternal man towards whom all things in the world have had a natural relationship from the time he began. But everything has become: there are *no eternal facts*, just as there are no absolute truths. Consequently what is needed from now on is *historical philosophizing*, and with it the virtue of modesty.

3.

ESTIMATION OF UNPRETENTIOUS TRUTHS.— It is the mark of a higher culture to value the little unpretentious truths which have been discovered by means of rigorous method more highly than the errors handed down by metaphysical ages and men, which blind us and make us happy. At first, one has scorn on his lips for unpretentious truths, as if they could offer no match for the others: they stand so modest, simple, sober, even apparently discouraging, while the other truths are so beautiful, splendid, enchanting, or even enrapturing. But truths that are hard won, certain, enduring, and therefore still of consequence for all further knowledge are the higher; to keep to them is manly, and shows bravery, simplicity, restraint. Eventually, not only the individual, but all mankind will be elevated to this manliness, when men finally grow accustomed to the greater esteem for durable, lasting

knowledge and have lost all belief in inspiration and a seemingly miraculous communication of truths.

The admirers of *forms*, with their standard of beauty and sublimity, will, to be sure, have good reason to mock at first, when esteem for unpretentious truths and the scientific spirit first comes to rule, but only because either their eye has not yet been opened to the charm of the *simplest* form, or because men raised in that spirit have not yet been fully and inwardly permeated by it, so that they continue thoughtlessly to imitate old forms (and poorly, too, like someone who no longer really cares about the matter). Previously, the mind was not obliged to think rigorously; its importance lay in spinning out symbols and forms. That has changed; that earnestness in the symbolical has become the mark of a lower culture. As our arts themselves grow evermore intellectual, our senses more spiritual, and as, for instance, people now judge concerning what sounds well to the senses quite differently from how they did a hundred years ago, so the forms of our life grow ever more *spiritual*, to the eye of older ages perhaps *uglier*, but only because it is incapable of perceiving how the kingdom of the inward, spiritual beauty constantly grows deeper and wider, and to what extent the inner intellectual look may be of more importance to us all than the most beautiful bodily frame and the noblest architectural structure

4.

ASTROLOGY AND THE LIKE.—It is probable that the objects of religious, moral, æsthetic and logical sentiment likewise belong only to the surface of things, while man willingly believes that here, at least, he has touched the heart of the world; he deceives himself, because those things enrapture him so profoundly, and make him so profoundly unhappy, and he therefore shows the same pride here as in astrology. For astrology believes that the firmament moves round the destiny of man; the moral man, however, takes it for granted that what he has essentially at heart must also be the essence and heart of things.

5.

MISUNDERSTANDING OF DREAMS.—In the ages of a rude and primitive civilisation man believed that in dreams he became acquainted with a *second actual world*; herein lies the origin of all metaphysics. Without dreams there could have been found no reason for a division of the world. The distinction, too, between soul and body is connected with the most ancient comprehension of dreams, also the supposition of an imaginary soul-body, therefore the origin of all belief in spirits, and probably also the belief in gods. "The dead continues to live, *for* he appears to the living in a dream": thus men reasoned of old for thousands and thousands of years.

6.

THE SCIENTIFIC SPIRIT PARTIALLY BUT NOT WHOLLY POWERFUL.—The *smallest* subdivisions of science taken separately are dealt with purely in relation to themselves,—the general, great sciences, on the contrary, regarded as a whole, call up the question—certainly a very non-objective one—"Wherefore? To what end?" It is this utilitarian consideration which causes them to be dealt with less impersonally when taken as a whole than when considered in their various parts. In philosophy, above all, as the apex of the entire pyramid of science, the question as to the utility of knowledge is involuntarily brought forward, and every philosophy has the unconscious intention of ascribing to it the *greatest* usefulness. For this reason there is so much high-flying metaphysics in all philosophies and such a shyness of the apparently unimportant solutions of physics; for the importance of knowledge for life *must* appear as great as possible. Here is the antagonism between the separate provinces of science and philosophy. The latter desires, what art does, to give the greatest possible depth and meaning to life and actions; in the former one seeks knowledge and nothing further, whatever may emerge thereby. So far there has been no philosopher in whose hands philosophy has not grown into an apology for knowledge; on this point, at least, every one is an optimist, that the greatest usefulness must be ascribed to knowledge. They are all tyrannised over by logic, and this is optimism—in its essence.

7.

THE KILL-JOY IN SCIENCE.—Philosophy separated from science when it asked the question, "Which is the knowledge of the world and of life which enables man to live most happily?" This happened in the Socratic schools;

the veins of scientific investigation were bound up by the point of view of *happiness*,—and are so still.

8.

PNEUMATIC EXPLANATION OF NATURE.—Metaphysics explains the writing of Nature, so to speak, *pneumatically*, as the Church and her learned men formerly did with the Bible. A great deal of understanding is required to apply to Nature the same method of strict interpretation as the philologists have now established for all books with the intention of clearly understanding what the text means, but not suspecting a *double* sense or even taking it for granted. Just, however, as with regard to books, the bad art of interpretation is by no means overcome, and in the most cultivated society one still constantly comes across the remains of allegorical and mystic interpretation, so it is also with regard to Nature, indeed it is even much worse.

9.

THE METAPHYSICAL WORLD.—It is true that there *might* be a metaphysical world ; the absolute possibility of it is hardly to be disputed. We look at everything through the human head and cannot cut this head off; while the question remains, What would be left of the world if it had been cut off ? This is a purely scientific problem, and one not very likely to trouble mankind ; but everything which has hitherto made metaphysical suppositions *valuable, terrible, delightful* for man, what has produced them, is passion, error, and self-deception ; the very worst methods of knowledge, not the best, have taught belief therein. When these methods have been discovered as the foundation of all existing religions and metaphysics, they have been refuted. Then there still always remains that possibility ; but there is nothing to be done with it, much less is it possible to let happiness, salvation, and life depend on the spider-thread of such a possibility. For nothing could be said of the metaphysical world but that it would be a different condition, a condition inaccessible and incomprehensible to us; it would be a thing of negative qualities. Were the existence of such a world ever so well proved, the fact would nevertheless remain that it would be precisely the most irrelevant of all forms of knowledge: more irrelevant than the knowledge of the chemical analysis of water to the sailor in danger in a storm.

10.

THE HARMLESSNESS OF METAPHYSICS IN THE FUTURE.—Directly the origins of religion, art, and morals have been so described that one can perfectly explain them without having recourse to metaphysical concepts at the beginning and in the course of the path, the strongest interest in the purely theoretical problem of the " thing-in-itself " and the " phenomenon " ceases. For however it may be here, with religion, art, and morals we do not touch the "essence of the world in itself" ; we are in the domain of representation, no " intuition " can carry us further. With the greatest calmness we shall leave the question as to how our own conception of the world can differ so widely from the revealed essence of the world, to physiology and the history of the evolution of organisms and ideas.

11.

LANGUAGE AS A PRESUMPTIVE SCIENCE.—The importance of language for the development of culture lies in the fact that in language man has placed a world of his own beside the other, a position which he deemed so fixed that he might therefrom lift the rest of the world off its hinges, and make himself master of it. Inasmuch as man has believed in the ideas and names of things as *æternæ veritates* for a great length of time, he has acquired that pride by which he has raised himself above the animal; he really thought that in language he possessed the knowledge of the world. The maker of language was not modest enough to think that he only gave designations to things, he believed rather that with his words he expressed the widest knowledge of the things ; in reality language is the first step in the endeavour after science. Here also it is belief in ascertained truth, from which the mightiest sources of strength have flowed. Much later—only now—it is dawning upon men that they have propagated a tremendous error in their belief in language. Fortunately it is now too late to reverse the development of reason, which is founded upon that belief. *Logic*, also, is founded upon suppositions to which nothing in the actual world corresponds,—for instance, on the supposition of the equality of things, and the identity of the same thing at different points of time,—but that particular science arose out of the contrary belief (that such things really existed in the actual world). It is the same with mathematics, which would certainly not have arisen if it had been known from the beginning that in Nature

there are no exactly straight lines, no real circle, no absolute standard of size.

12.

DREAM AND CULTURE.—The function of the brain which is most influenced by sleep is the memory ; not that it entirely ceases ; but it is brought back to a condition of imperfection, such as everyone may have experienced in pre-historic times, whether asleep or awake. Arbitrary and confused as it is, it constantly confounds things on the ground of the most fleeting resemblances; but with the same arbitrariness and confusion the ancients invented their mythologies, and even at the present day travellers are accustomed to remark how prone the savage is to forgetfulness, how, after a short tension of memory, his mind begins to sway here and there from sheer weariness and gives forth lies and nonsense. But in dreams we all resemble the savage ; bad recognition and erroneous comparisons are the reasons of the bad conclusions, of which we are guilty in dreams : so that, when we clearly recollect what we have dreamt, we are alarmed at ourselves at harbouring so much foolishness within us. The perfect distinctness of all dream-representations, which pre-suppose absolute faith in their reality, recall the conditions that appertain to primitive man, in whom hallucination was extraordinarily frequent, and sometimes simultaneously seized entire communities, entire nations. Therefore, in sleep and in dreams we once more carry out the task of early humanity.

13.

THE LOGIC OF DREAMS.—In sleep our nervous system is perpetually excited by numerous inner occurrences ; nearly all the organs are disjointed and in a state of activity, the blood runs its turbulent course, the position of the sleeper causes pressure on certain limbs, his coverings influence his sensations in various ways, the stomach digests and by its movements it disturbs other organs, the intestines writhe, the position of the head occasions unaccustomed play of muscles, the feet, unshod, not pressing upon the floor with the soles, occasion the feeling of the unaccustomed just as does the different clothing of the whole body: all this, according to its daily change and extent, excites by its extraordinariness the entire system to the very functions of the brain, and thus there are a hundred occasions for the spirit to be surprised and to seek for the *reasons* of this excitation ;—the dream, however, is *the seeking and representing of the causes* of those excited sensations,—that is, of the supposed causes. A person who, for instance, binds his feet with two straps will perhaps dream that two serpents are coiling round his feet; this is first hypothesis, then a belief, with an accompanying *mental* picture and interpretation—" These serpents must be the *causa* of those sensations which I, the sleeper, experience,"—so decides the mind of the sleeper. The immediate past, so disclosed, becomes to him the present through his excited imagination. Thus every one knows from experience how quickly the dreamer weaves into his dream a loud sound that he hears, such as the ringing of bells or the firing of cannon, that is to say, explains it from *afterwards* so that he first *thinks* he experiences the producing circumstances and then that sound. But how does it happen that the mind of the dreamer is always so mistaken, while the same mind when awake is accustomed to be so temperate, careful, and sceptical with regard to its hypotheses? so that the first random hypothesis for the explanation of a feeling suffices for him to believe immediately in its truth ? (For in dreaming we believe in the dream as if it were a reality, *i.e.* we think our hypothesis completely proved.) I hold, that as man now still reasons in dreams, so men reasoned also *when awake* through thousands of years ; the first *causa* which occurred to the mind to explain anything that required an explanation, was sufficient and stood for truth. (Thus, according to travellers' tales, savages still do to this very day.) This ancient element in human nature still manifests itself in our dreams, for it is the foundation upon which the higher reason has developed and still develops in every individual ; the dream carries us back into remote conditions of human culture, and provides a ready means of understanding them better. Dream-thinking is now so easy to us because during immense periods of human development we have been so well drilled in this form of fantastic and cheap explanation, by means of the first agreeable notions. In so far, dreaming is a recreation for the brain, which by day has to satisfy the stern demands of thought, as they are laid down by the higher culture. We can at once discern an allied process even in our awakened state, as the door and ante-room of the dream. If we shut our eyes, the brain produces a number of impressions of light and colour, probably as a kind of after-play and echo of all those effects of light which crowd in

upon it by day. Now, however, the understanding, together with the imagination, instantly works up this play of colour, shapeless in itself, into definite figures, forms, landscapes, and animated groups. The actual accompanying process thereby is again a kind of conclusion from the effect to the cause : since the mind asks, " Whence come these impressions of light and colour ? " it supposes those figures and forms as causes ; it takes them for the origin of those colours and lights, because in the daytime, with open eyes, it is accustomed to find a producing cause for every colour, every effect of light. Here, therefore, the imagination constantly places pictures before the mind, since it supports itself on the visual impressions of the day in their production, and the dream-imagination does just the same thing,—that is, the supposed cause is deduced from the effect and represented after the effect ; all this happens with extraordinary rapidity, so that here, as with the conjuror, a confusion of judgment may arise and a sequence may look like something simultaneous, or even like a reversed sequence. From these circumstances we may gather *how lately* the more acute logical thinking, the strict discrimination of cause and effect has been developed, when our reasoning and understanding faculties *still* involuntarily hark back to those primitive forms of deduction, and when we pass about half our life in this condition. The poet, too, and the artist assign causes for their moods and conditions which are by no means the true ones ; in this they recall an older humanity and can assist us to the understanding of it.

14.

CO-ECHOING.—All *stronger* moods bring with them a co-echoing of kindred sensations and moods, they grub up the memory, so to speak. Along with them something within us remembers and becomes conscious of similar conditions and their origin. Thus there are formed quick habitual connections of feelings and thoughts, which eventually, when they follow each other with lightning speed, are no longer felt as complexes but as *unities*. In this sense one speaks of the moral feeling, of the religious feeling, as if they were absolute unities : in reality they are streams with a hundred sources and tributaries. Here also, as so often happens, the unity of the word is no security for the unity of the thing.

15.

NO INTERNAL AND EXTERNAL IN THE WORLD.—As Democritus transferred the concepts " above " and " below " to endless space where they have no sense, so philosophers in general have transferred the concepts " Internal " and " External " to the essence and appearance of the world ; they think that with deep feelings one can penetrate deeply into the internal and approach the heart of Nature. But these feelings are only deep in so far as along with them, barely noticeable, certain complicated groups of thoughts, which we call deep, are regularly excited ; a feeling is deep because we think that the accompanying thought is deep. But the " deep " thought can nevertheless be very far from the truth, as, for instance, every metaphysical one ; if one take away from the deep feeling the commingled elements of thought, then the *strong* feeling remains, and this guarantees nothing for knowledge but itself, just as strong faith proves only its strength and not the truth of what is believed in.

16.

PHENOMENON AND THING-IN-ITSELF.—Philosophers are in the habit of setting themselves before life and experience—before that which they call the world of appearance—as before a picture that is once for all unrolled and exhibits unchangeably fixed the same process,—this process, they think, must be rightly interpreted in order to come to a conclusion about the being that produced the picture : about the thing-in-itself, therefore, which is always accustomed to be regarded as sufficient ground for the world of phenomenon. On the other hand, since one always makes the idea of the metaphysical stand definitely as that of the unconditioned, *consequently* also unconditioning, one must directly disown all connection between the unconditioned (the metaphysical world) and the world which is known to us ; so that the thing-in-itself should most certainly *not* appear in the phenomenon, and every conclusion from the former as regards the latter is to be rejected. Both sides overlook the fact that that picture—that which we now call human life and experience—has gradually evolved,—nay, is still in the full process of evolving,—and therefore should not be regarded as a fixed magnitude from which a conclusion about its originator might be deduced (the sufficing cause) or even merely neglected. It is because for thousands of years we have looked into the world

with moral, æsthetic, and religious pretensions, with blind inclination, passion, or fear, and have surfeited ourselves in the vices of illogical thought, that this world has gradually *become* so marvellously motley, terrible, full of meaning and of soul, it has acquired colour—but we were the colourists; the human intellect, on the basis of human needs, of human emotions, has caused this " phenomenon " to appear and has carried its erroneous fundamental conceptions into things. Late, very late, it takes to thinking, and now the world of experience and the thing-in-itself seem to it so extraordinarily different and separated, that it gives up drawing conclusions from the former to the latter—or in a terribly mysterious manner demands the renunciation of our intellect, of our personal will, in order *thereby* to reach the essential, that one may *become essential*. Again, others have collected all the characteristic features of our world of phenomenon,—that is, the idea of the world spun out of intellectual errors and inherited by us,—and *instead of accusing the intellect* as the offenders, they have laid the blame on the nature of things as being the cause of the hard fact of this very sinister character of the world, and have preached the deliverance from Being. With all these conceptions the constant and laborious process of science (which at last celebrates its greatest triumph in a *history of the origin of thought*) becomes completed in various ways, the result of which might perhaps run as follows :—"That which we now call the world is the result of a mass of errors and fantasies which arose gradually in the general development of organic being, which are inter-grown with each other, and are now inherited by us as the accumulated treasure of all the past —as a treasure, for the value of our humanity depends upon it. From this world of representation strict science is really only able to liberate us to a very slight extent—as it is also not at all desirable—inasmuch as it cannot essentially break the power of primitive habits of feeling ; but it can gradually elucidate the history of the rise of that world as representation,—and lift us, at least for moments, above and beyond the whole process. Perhaps we shall then recognise that the thing in itself is worth a Homeric laugh ; that it *seemed* so much, indeed everything, and *is* really empty, namely, empty of meaning."

17.

METAPHYSICAL EXPLANATIONS.—The young man values metaphysical explanations, because they show him something highly significant in things which he found unpleasant or despicable, and if he is dissatisfied with himself, the feeling becomes lighter when he recognises the innermost world-puzzle or world-misery in that which he so strongly disapproves of in himself. To feel himself less responsible and at the same time to find things more interesting—that seems to him a double benefit for which he has to thank metaphysics. Later on, certainly, he gets distrustful of the whole metaphysical method of explanation ; then perhaps it grows clear to him that those results can be obtained equally well and more scientifically in another way : that physical and historical explanations produce the feeling of personal relief to at least the same extent, and that the interest in life and its problems is perhaps still more aroused thereby.

18.

FUNDAMENTAL QUESTIONS OF METAPHYSICS.—When the history of the rise of thought comes to be written, a new light will be thrown on the following statement of a distinguished logician :— "The primordial general law of the cognisant subject consists in the inner necessity of recognising every object in itself in its own nature, as a thing identical with itself, consequently self-existing and at bottom remaining ever the same and unchangeable : in short, in recognising everything as a substance." Even this law, which is here called " primordial," has evolved: it will some day be shown how gradually this tendency arises in the lower organisms, how the feeble mole-eyes of their organisations at first see only the same thing,—how then, when the various awakenings of pleasure and displeasure become noticeable, various substances are gradually distinguished, but each with one attribute, *i.e.* one single relation to such an organism. The first step in logic is the judgment,—the nature of which, according to the decision of the best logicians, consists in belief. At the bottom of all belief lies *the sensation of the pleasant or the painful* in relation to the *sentient subject*. A new third sensation as the result of two previous single sensations is the judgment in its simplest form. We organic beings have originally no interest in anything but its relation to *us* in connection with pleasure and pain. Between the moments (the states of feeling) when we become conscious of this connection, lie moments of rest, of non-feeling ; the world and everything is then without interest

for us, we notice no change in it (as even now a deeply interested person does not notice when any one passes him). To the plant, things are as a rule tranquil and eternal, everything like itself. From the period of the lower organisms man has inherited the belief that *similar things* exist (this theory is only contradicted by the matured experience of the most advanced science). The primordial belief of everything organic from the beginning is perhaps even this, that all the rest of the world is one and immovable. The point furthest removed from those early beginnings of logic is the idea of *Causality*,—indeed we still really think that all sensations and activities are acts of the free will ; when the sentient individual contemplates himself, he regards every sensation, every alteration as something *isolated*, that is to say, unconditioned and disconnected,—it rises up in us without connection with anything foregoing or following. We are hungry, but do not originally think that the organism must be nourished ; the feeling seems to make itself felt *without cause and purpose*, it isolates itself and regards itself as arbitrary. Therefore, belief in the freedom of the will is an original error of everything organic, as old as the existence of the awakenings of logic in it ; the belief in unconditioned substances and similar things is equally a primordial as well as an old error of everything organic. But inasmuch as all metaphysics has concerned itself chiefly with substance and the freedom of will, it may be designated as the science which treats of the fundamental errors of mankind, but treats of them as if they were fundamental truths.

19.

NUMBER.—The discovery of the laws of numbers is made upon the ground of the original, already prevailing error, that there are many similar things (but in reality there is nothing similar), at least, that there are things (but there is no "thing"). The supposition of plurality always presumes that there is something which appears frequently,—but here already error reigns, already we imagine beings, unities, which do not exist. Our sensations of space and time are false, for they lead—examined in sequence—to logical contradictions. In all scientific determinations we always reckon inevitably with certain false quantities, but as these quantities are at least constant, as, for instance, our sensation of time and space, the conclusions of science have still perfect accuracy and certainty in their connection with one another; one may continue to build upon them—until that final limit where the erroneous original suppositions, those constant faults, come into conflict with the conclusions, for instance in the doctrine of atoms. There still we always feel ourselves compelled to the acceptance of a " thing " or material " substratum " that is moved, whilst the whole scientific procedure has pursued the very task of resolving everything substantial (material) into motion ; here, too, we still separate with our sensation the mover and the moved and cannot get out of this circle, because the belief in things has from immemorial times been bound up with our being. When Kant says, " The understanding does not derive its laws from Nature, but dictates them to her," it is perfectly true with regard to the idea of Nature which we are compelled to associate with her (Nature = World as representation, that is to say as error), but which is the summing up of a number of errors of the understanding. The laws of numbers are entirely inapplicable to a world which is not our representation—these laws obtain only in the human world.

20.

A FEW STEPS BACK.—A degree of culture, and assuredly a very high one, is attained when man rises above superstitious and religious notions and fears, and, for instance, no longer believes in guardian angels or in original sin, and has also ceased to talk of the salvation of his soul,—if he has attained to this degree of freedom, he has still also to overcome metaphysics with the greatest exertion of his intelligence. Then, however, a *retrogressive movement* is necessary ; he must understand the historical justification as well as the psychological in such representations, he must recognise how the greatest advancement of humanity has come therefrom, and how, without such a retrocursive movement, we should have been robbed of the best products of hitherto existing mankind. With regard to philosophical metaphysics, I always see increasing numbers who have attained to the negative goal (that all positive metaphysics is error), but as yet few who climb a few rungs backwards ; one ought to look out, perhaps, over the last steps of the ladder, but not try to stand upon them. The most enlightened only succeed so far as to free themselves from metaphysics and look back upon it with superiority, while it is necessary here, too, as in the hippodrome, to turn round the end of the course.

21.

CONJECTURAL VICTORY OF SCEPTICISM.—For once let the sceptical starting-point be accepted, —granted that there were no other metaphysical world, and all explanations drawn from meta- physics about the only world we know were useless to us, in what light should we then look upon men and things? We can think this out for ourselves, it is useful, even though the question whether anything metaphysical has been scientifically proved by Kant and Schopenhauer were altogether set aside. For it is quite possible, according to historical probability, that some time or other man, as a general rule, may grow *sceptical* ; the question will then be this : What form will human society take under the influence of such a mode of thought ? Perhaps the *scientific proof* of some metaphysical world or other is already so *difficult* that mankind will never get rid of a certain distrust of it. And when there is distrust of metaphysics, there are on the whole the same results as if it had been directly refuted and *could* no longer be believed in. The historical question with regard to an unmetaphysical frame of mind in mankind remains the same in both cases.

22.

UNBELIEF IN THE "*MONUMENTUM ÆRE PERENNIUS*"—An actual drawback which accompanies the cessation of metaphysical views lies in the fact that the individual looks upon his short span of life too exclusively and receives no stronger incentives to build durable institutions intended to last for centuries,—he himself wishes to pluck the fruit from the tree which he plants, and therefore he no longer plants those trees which require regular care for centuries, and which are destined to afford shade to a long series of generations. For metaphysical views furnish the belief that in them the last conclusive foundation has been given, upon which henceforth all the future of mankind is compelled to settle down and establish itself; the individual furthers his salvation, when, for instance, he founds a church or convent, he thinks it will be reckoned to him and recompensed to him in the eternal life of the soul, it is work for the soul's eternal salvation. Can science also arouse such faith in its results ? As a matter of fact, it needs doubt and distrust as its most faithful auxiliaries ; nevertheless in the course of time, the sum of inviolable truths—those, namely, which have weathered all the storms of scepticism, and all destructive analysis—may have become so great (in the regimen of health, for instance), that one may determine to found thereupon "eternal" works. For the present the *contrast* between our excited ephemeral existence and the long-winded repose of metaphysical ages still operates too strongly, because the two ages still stand too closely together ; the individual man himself now goes through too many inward and outward developments for him to venture to arrange his own lifetime permanently, and once and for all. An entirely modern man, for instance, who is going to build himself a house, has a feeling as if he were going to immure himself alive in a mausoleum.

23.

THE AGE OF COMPARISON.—The less men are fettered by tradition, the greater becomes the inward activity of their motives ; the greater, again, in proportion thereto, the outward restlessness, the confused flux of mankind, the polyphony of strivings. For whom is there still an absolute compulsion to bind himself and his descendants to one place ? For whom is there still anything strictly compulsory? As all styles of arts are imitated simultaneously, so also are all grades and kinds of morality, of customs, of cultures. Such an age obtains its importance because in it the various views of the world, customs, and cultures can be compared and experienced simultaneously,—which was formerly not possible with the always localised sway of every culture, corresponding to the rooting of all artistic styles in place and time. An increased æsthetic feeling will now at last decide amongst so many forms presenting themselves for comparison; it will allow the greater number, that is to say all those rejected by it, to die out. In the same way a selection amongst the forms and customs of the higher moralities is taking place, of which the aim can be nothing else than the downfall of the lower moralities. It is the age of comparison ! That is its pride, but more justly also its grief. Let us not be afraid of this grief! Rather will we comprehend as adequately as possible the task our age sets us : posterity will bless us for doing so,—a posterity which knows itself to be as much above the terminated original national cultures as above the culture of comparison, but which looks back with gratitude on both kinds of culture as upon antiquities worthy of veneration.

24.

THE POSSIBILITY OF PROGRESS.—When a scholar of the ancient culture forswears the company of men who believe in progress, he does quite right. For the greatness and goodness of ancient culture lie behind it, and historical education compels one to admit that they can never be fresh again ; an unbearable stupidity or an equally insufferable fanaticism would be necessary to deny this. But men can *consciously* resolve to develop themselves towards a new culture ; whilst formerly they only developed unconsciously and by chance, they can now create better conditions for the rise of human beings, for their nourishment, education and instruction ; they can administer the earth economically as a whole, and can generally weigh and restrain the powers of man. This new, conscious culture kills the old, which, regarded as a whole, has led an unconscious animal and plant life; it also kills distrust in progress,—progress is *possible*. I must say that it is over-hasty and almost nonsensical to believe that progress must *necessarily* follow ; but how could one deny that it is possible? On the other hand, progress in the sense and on the path of the old culture is not even thinkable. Even if romantic fantasy has also constantly used the word " progress " to denote its aims (for instance, circumscribed primitive national cultures), it borrows the picture of it in any case from the past ; its thoughts and ideas on this subject are entirely without originality.

25.

PRIVATE AND ŒCUMENICAL MORALITY.—Since the belief has ceased that a God directs in general the fate of the world and, in spite of all apparent crookedness in the path of humanity, leads it on gloriously, men themselves must set themselves œcumenical aims embracing the whole earth. The older morality, especially that of Kant, required from the individual actions which were desired from all men,—that was a delightfully naïve thing, as if each one knew off-hand what course of action was beneficial to the whole of humanity, and consequently which actions in general were desirable ; it is a theory like that of free trade, taking for granted that the general harmony *must* result of itself according to innate laws of amelioration. Perhaps a future contemplation of the needs of humanity will show that it is by no means desirable that all men should act alike ; in the interest of œcumenical aims it might rather be that for whole sections of mankind, special, and perhaps under certain circumstances even evil, tasks would have to be set. In any case, if mankind is not to destroy itself by such a conscious universal rule, there must previously be found, as a scientific standard for œcumenical aims, a *knowledge of the conditions of culture* superior to what has hitherto been attained. Herein lies the enormous task of the great minds of the next century.

26.

REACTION AS PROGRESS.—Now and again there appear rugged, powerful, impetuous, but nevertheless backward-lagging minds which conjure up once more a past phase of mankind ; they serve to prove that the new tendencies against which they are working are not yet sufficiently strong, that they still lack something, otherwise they would show better opposition to those exorcisers. Thus, for example, Luther's Reformation bears witness to the fact that in his century all the movements of the freedom of the spirit were still uncertain, tender, and youthful ; science could not yet lift up its head. Indeed the whole Renaissance seems like an early spring which is almost snowed under again. But in this century also, Schopenhauer's Metaphysics showed that even now the scientific spirit is not yet strong enough ; thus the whole mediæval Christian view of the world and human feeling could celebrate its resurrection in Schopenhauer's doctrine, in spite of the long achieved destruction of all Christian dogmas. There is much science in his doctrine, but it does not dominate it : it is rather the old well - known "metaphysical requirement" that does so. It is certainly one of the greatest and quite invaluable advantages which we gain from Schopenhauer, that he occasionally forces our sensations back into older, mightier modes of contemplating the world and man, to which no other path would so easily lead us. The gain to history and justice is very great,—I do not think that any one would so easily succeed now in doing justice to Christianity and its Asiatic relations without Schopenhauer's assistance, which is specially impossible from the basis of still existing Christianity. Only after this great *success of justice*, only after we have corrected so essential a point as the historical mode of contemplation which the age of enlightenment brought with it, may we again bear onward the banner of enlightenment, the banner with the three names, Petrarch, Erasmus, Voltaire. We have turned reaction into progress.

27.

A SUBSTITUTE FOR RELIGION.—It is believed that something good is said of philosophy when it is put forward as a substitute for religion for the people. As a matter of fact, in the spiritual economy there is need, at times, of an *intermediary* order of thought : the transition from religion to scientific contemplation is a violent, dangerous leap, which is not to be recommended. To this extent the recommendation is justifiable. But one should eventually learn that the needs which have been satisfied by religion and are now to be satisfied by philosophy are not unchangeable ; these themselves can be *weakened* and *eradicated*. Think, for instance, of the Christian's distress of soul, his sighing over inward corruption, his anxiety for salvation,—all notions which originate only in errors of reason and deserve not satisfaction but destruction. A philosophy can serve either to *satisfy* those needs or to *set them aside* ; for they are acquired, temporally limited needs, which are based upon suppositions contradictory to those of science. Here, in order to make a transition, *art* is far rather to be employed to relieve the mind over-burdened with emotions ; for those notions receive much less support from it than from a metaphysical philosophy. It is easier, then, to pass over from art to a really liberating philosophical science.

28.

ILL-FAMED WORDS.—Away with those wearisomely hackneyed terms Optimism and Pessimism ! For the occasion for using them becomes less and less from day to day ; only the chatterboxes still find them so absolutely necessary. For why in all the world should any one wish to be an optimist unless he had a God to defend who *must* have created the best of worlds if he himself be goodness and perfection,—what thinker, however, still needs the hypothesis of a God ? But every occasion for a pessimistic confession of faith is also lacking when one has no interest in being annoyed at the advocates of God (the theologians, or the theologising philosophers), and in energetically defending the opposite view, that evil reigns, that pain is greater than pleasure, that the world is a bungled piece of work, the manifestation of an ill-will to life. But who still bothers about the theologians now—except the theologians ? Apart from all theology and its contentions, it is quite clear that the world is not good and not bad (to say nothing of its being the best or the worst), and that the terms " good " and " bad " have only significance with respect to man, and indeed, perhaps, they are not justified even here in the way they are usually employed ; in any case we must get rid of both the calumniating and the glorifying conception of the world.

29.

INTOXICATED BY THE SCENT OF THE BLOSSOMS.—It is supposed that the ship of humanity has always a deeper draught, the heavier it is laden ; it is believed that the deeper a man thinks, the more delicately he feels, the higher he values himself, the greater his distance from the other animals,—the more he appears as a genius amongst the animals,—all the nearer will he approach the real essence of the world and its knowledge ; this he actually does too, through science, but he *means* to do so still more through his religions and arts. These certainly are blossoms of the world, but by no means any *nearer to the root of the world* than the stalk ; it is not possible to understand the nature of things better through them, although almost every one believes he can. *Error* has made man so deep, sensitive, and inventive that he has put forth such blossoms as religions and arts. Pure knowledge could not have been capable of it. Whoever were to unveil for us the essence of the world would give us all the most disagreeable disillusionment. Not the world as thing-in-itself, but the world as representation (as error) is so full of meaning, so deep, so wonderful, bearing happiness and unhappiness in its bosom. This result leads to a philosophy of the logical denial of the world, which, however, can be combined with a practical world-affirming just as well as with its opposite.

30.

BAD HABITS IN REASONING.—The usual false conclusions of mankind are these : a thing exists, therefore it has a right to exist. Here there is inference from the ability to live to its suitability ; from its suitability to its rightfulness. Then : an opinion brings happiness ; therefore it is the true opinion. Its effect is good ; therefore it is itself good and true. To the effect is here assigned the predicate beneficent, good, in the sense of the useful, and the cause is then furnished with the same predicate good, but here in the sense of the logically valid. The inversion of the sentences

would read thus: an affair cannot be carried through, or maintained, therefore it is wrong ; an opinion causes pain or excites, therefore it is false. The free spirit who learns only too often the faultiness of this mode of reasoning, and has to suffer from its consequences, frequently gives way to the temptation to draw the very opposite conclusions, which, in general, are naturally just as false : an affair cannot be carried through, therefore it is good ; an opinion is distressing and disturbing, therefore it is true.

31.

THE ILLOGICAL NECESSARY.—One of those things that may drive a thinker into despair is the recognition of the fact that the illogical is necessary for man, and that out of the illogical comes much that is good. It is so firmly rooted in the passions, in language, in art, in religion, and generally in everything that gives value to life, that it cannot be withdrawn without thereby hopelessly injuring these beautiful things. It is only the all-too-naïve people who can believe that the nature of man can be changed into a purely logical one ; but if there were degrees of proximity to this goal, how many things would not have to be lost on this course ! Even the most rational man has need of nature again from time to time, *i.e.* his *illogical* fundamental attitude *towards all things*.

32.

INJUSTICE NECESSARY.—All judgments on the value of life are illogically developed, and therefore unjust. The inexactitude of the judgment lies, firstly, in the manner in which the material is presented, namely very imperfectly ; secondly, in the manner in which the conclusion is formed out of it; and thirdly, in the fact that every separate element of the material is again the result of vitiated recognition, and this, too, of necessity. For instance, no experience of an individual, however near he may stand to us, can be perfect, so that we could have a logical right to make a complete estimate of him ; all estimates are rash, and must be so. Finally, the standard by which we measure, our nature, is not of unalterable dimensions,—we have moods and vacillations, and yet we should have to recognise ourselves as a fixed standard in order to estimate correctly the relation of any thing whatever to ourselves. From this it will, perhaps, follow that we should make no judgments at all ; if one could only live without making estimations, without having likes and dislikes ! For all dislike is connected with an estimation, as well as all inclination. An impulse towards or away from anything without a feeling that something advantageous is desired, something injurious avoided, an impulse without any kind of conscious valuation of the worth of the aim does not exist in man. We are from the beginning illogical, and therefore unjust beings, *and can recognise this* ; it is one of the greatest and most inexplicable discords of existence.

33.

ERROR ABOUT LIFE NECESSARY FOR LIFE.—Every belief in the value and worthiness of life is based on vitiated thought ; it is only possible through the fact that sympathy for the general life and suffering of mankind is very weakly developed in the individual. Even the rarer people who think outside themselves do not contemplate this general life, but only a limited part of it. If one understands how to direct one's attention chiefly to the exceptions,—I mean to the highly gifted and the rich souls,—if one regards the production of these as the aim of the whole world-development and rejoices in its operation, then one may believe in the value of life, because one thereby *overlooks* the other men—one consequently thinks fallaciously. So too, when one directs one's attention to all mankind, but only considers *one* species of impulses in them, the less egoistical ones, and excuses them with regard to the other instincts, one may then again entertain hopes of mankind in general and believe so far in the value of life, consequently in this case also through fallaciousness of thought. Let one, however, behave in this or that manner : with such behaviour one is an *exception* amongst men. Now, most people bear life without any considerable grumbling, and consequently *believe* in the value of existence, but precisely because each one is solely self-seeking and self-affirming, and does not step out of himself like those exceptions ; everything extra-personal is imperceptible to them, or at most seems only a faint shadow. Therefore on this alone is based the value of life for the ordinary everyday man, that he regards himself as more important than the world. The great lack of imagination from which he suffers is the reason why he cannot enter into the feelings of other beings, and therefore sympathises as little as possible with their fate and suffering. He, on the other hand, who really *could* sympathise therewith, would have to

despair of the value of life ; were he to succeed in comprehending and feeling in himself the general consciousness of mankind, he would collapse with a curse on existence ; for mankind as a whole has *no* goals, consequently man, in considering his whole course, cannot find in it his comfort and support, but his despair. If, in all that he does, he considers the final aimlessness of man, his own activity assumes in his eyes the character of wastefulness. But to feel one's self just as much wasted as humanity (and not only as an individual) as we see the single blossom of nature wasted, is a feeling above all other feelings. But who is capable of it? Assuredly only a poet, and poets always know how to console themselves.

34.

FOR TRANQUILLITY.—But does not our philosophy thus become a tragedy ? Does not truth become hostile to life, to improvement ? A question seems to weigh upon our tongue and yet hesitate to make itself heard : whether one *can* consciously remain in untruthfulness ? or, supposing one were *obliged* to do this, would not death be preferable ? For there is no longer any " must " ; morality, in so far as it had any " must " or " shalt, has been destroyed by our mode of contemplation, just as religion has been destroyed. Knowledge can only allow pleasure and pain, benefit and injury to subsist as motives ; but how will these motives agree with the sense of truth ? They also contain errors (for, as already said, inclination and aversion, and their very incorrect determinations, practically regulate our pleasure and pain). The whole of human life is deeply immersed in untruthfulness ; the individual cannot draw it up out of this well, without thereby taking a deep dislike to his whole past, without finding his present motives —those of honour, for instance—inconsistent, and without opposing scorn and disdain to the passions which conduce to happiness in the future. Is it true that there remains but one sole way of thinking which brings after it despair as a personal experience, as a theoretical result, a philosophy of dissolution, disintegration, and self-destruction ? I believe that the decision with regard to the after- effects of the knowledge will be given through the *temperament* of a man ; I could imagine another after-effect, just as well as that one described, which is possible in certain natures, by means of which a life would arise much simpler, freer from emotions than is the present one, so that though at first, indeed, the old motives of passionate desire might still have strength from old hereditary habit, they would gradually become weaker under the influence of purifying knowledge. One would live at last amongst men, and with one's self as with *Nature* without praise, reproach, or agitation, feasting one's eyes, as if it were a *play*, upon much of which one was formerly afraid. One would be free from the emphasis, and would no longer feel the goading, of the thought that one is not only nature or more than nature. Certainly, as already remarked, a good temperament would be necessary for this, an even, mild, and naturally joyous soul, a disposition which would not always need to be on its guard against spite and sudden outbreaks, and would not convey in its utterances anything of a grumbling or sudden nature,—those well-known vexatious qualities of old dogs and men who have been long chained up. On the contrary, a man from whom the ordinary fetters of life have so far fallen that he continues to live only for the sake of ever better knowledge must be able to renounce without envy and regret : much, indeed almost everything that is precious to other men, he must regard as the *all- sufficing and the most desirable condition ; the free*, fearless soaring over men, customs, laws, and the traditional valuations of things. The joy of this condition he imparts willingly, and he *has* perhaps nothing else to impart,—wherein, to be sure, there is more privation and renunciation. If, nevertheless, more is demanded from him, he will point with a friendly shake of his head to his brother, the free man of action, and will perhaps not conceal a little derision, for as regards this " freedom " it is a very peculiar case.

SECOND DIVISION - The History Of The Moral Sentiments.

35.

ADVANTAGES OF PSYCHOLOGICAL OBSERVATION.—That reflection on the human, all-too-human—or, according to the learned expression, psychological observation—is one of the means by which one may lighten the burden of life, that exercise in this art produces presence of mind in difficult circumstances, in the midst of tiresome surroundings, even that from the most thorny and unpleasant periods of one's own life one may gather maxims and thereby feel a little better: all this was believed, was known in former centuries. Why was it forgotten by our century, when in Germany at least, even in all Europe, the poverty of psychological observation betrays itself by many signs? Not exactly in novels, tales, and philosophical treatises,—they are the work of exceptional individuals,—rather in the judgments on public events and personalities ; but above all there is a lack of the art of psychological analysis and summing-up in every rank of society, in which a great deal is talked about men, but nothing about *man*. Why do we allow the richest and most harmless subject of conversation to escape us ? Why are not the great masters of psychological maxims more read ? For, without any exaggeration, the educated man in Europe who has read La Rochefoucauld and his kindred in mind and art, is rarely found, and still more rare is he who knows them and does not blame them. It is probable, however, that even this exceptional reader will find much less pleasure in them than the form of this artist should afford him ; for even the clearest head is not capable of rightly estimating the art of shaping and polishing maxims unless he has really been brought up to it and has competed in it. Without this practical teaching one deems this shaping and polishing to be easier than it is ; one has not a sufficient perception of fitness and charm. For this reason the present readers of maxims find in them a comparatively small pleasure, hardly a mouthful of pleasantness, so that they resemble the people who generally look at cameos, who praise because they cannot love, and are very ready to admire, but still more ready to run away.

36.

OBJECTION.—Or should there be a counter-reckoning to that theory that places psychological observation amongst the means of charming, curing, and relieving existence ? Should one have sufficiently convinced one's self of the unpleasant consequences of this art to divert from it designedly the attention of him who is educating himself in it? As a matter of fact, a certain blind belief in the goodness of human nature, an innate aversion to the analysis of human actions, a kind of shamefacedness with respect to the nakedness of the soul may really be more desirable for the general well-being of a man than that quality, useful in isolated cases, of psychological sharp-sightedness ; and perhaps the belief in goodness, in virtuous men and deeds, in an abundance of impersonal good-will in the world, has made men better inasmuch as it has made them less distrustful. When one imitates Plutarch's heroes with enthusiasm, and turns with disgust from a suspicious examination of the motives for their actions, it is not truth which benefits thereby, but the welfare of human society ; the psychological mistake and, generally speaking, the insensibility on this matter helps humanity forwards, while the recognition of truth gains more through the stimulating power of hypothesis than La Rochefoucauld has said in his preface to the first edition of his "*Sentences et maximes morales*." . . . "*Ce que le monde nomme vertu n'est d'ordinaire qu'un fantôme formé par nos passions, à qui on donne un nom honnête pour faire impunément ce qu'on veut.*" La Rochefoucauld and those other French masters of soul-examination (who have lately been joined by a German, the author of *Psychological Observations* ^[4]) resemble good marksmen who again and again hit the bull's-eye ; but it is the bull's-eye of human nature. Their art arouses astonishment ; but in the end a spectator who is not led by the spirit of science, but by humane intentions, will probably execrate an art which appears to implant in the soul the sense of the disparagement and suspicion of mankind.

37.

NEVERTHELESS.—However it may be with reckoning and counter-reckoning, in the present condition of philosophy the awakening of moral observation is necessary. Humanity can no longer be spared the cruel sight of the psychological dissecting-table with its knives and forceps. For here rules that science which inquires into the origin and history of the so-called moral sentiments, and which, in its progress, has to draw up and solve complicated

sociological problems:—the older philosophy knows the latter one not at all, and has always avoided the examination of the origin and history of moral sentiments on any feeble pretext. With what consequences it is now very easy to see, after it has been shown by many examples how the mistakes of the greatest philosophers generally have their starting-point in a wrong explanation of certain human actions and sensations, just as on the ground of an erroneous analysis—for instance, that of the so-called unselfish actions—a false ethic is built up ; then, to harmonise with this again, religion and mythological confusion are brought in to assist, and finally the shades of these dismal spirits fall also over physics and the general mode of regarding the world. If it is certain, however, that superficiality in psychological observation has laid, and still lays, the most dangerous snares for human judgments and conclusions, then there is need now of that endurance of work which does not grow weary of piling stone upon stone, pebble on pebble; there is need of courage not to be ashamed of such humble work and to turn a deaf ear to scorn. And this is also true,—numberless single observations on the human and all-too-human have first been discovered, and given utterance to, in circles of society which were accustomed to offer sacrifice therewith to a clever desire to please, and not to scientific knowledge,—and the odour of that old home of the moral maxim, a very seductive odour, has attached itself almost inseparably to the whole species, so that on its account the scientific man involuntarily betrays a certain distrust of this species and its earnestness. But it is sufficient to point to the consequences, for already it begins to be seen what results of a serious kind spring from the ground of psychological observation. What, after all, is the principal axiom to which the boldest and coldest thinker, the author of the book *On the Origin of Moral Sensations*,^[5] has attained by means of his incisive and decisive analyses of human actions ? " The moral man," he says, " is no nearer to the intelligible (metaphysical) world than is the physical man." This theory, hardened and sharpened under the hammer-blow of historical knowledge, may some time or other, perhaps in some future period, serve as the axe which is applied to the root of the " metaphysical need " of man,—whether *more* as a blessing than a curse to the general welfare it is not easy to say, but in any case as a theory with the most important consequences, at once fruitful and terrible, and looking into the world with that Janus-face which all great knowledge possesses.

38.

HOW FAR USEFUL.—It must remain for ever undecided whether psychological observation is advantageous or disadvantageous to man ; but it is certain that it is necessary, because science cannot do without it. Science, however, has no consideration for ultimate purposes, any more than Nature has, but just as the latter occasionally achieves things of the greatest suitability without intending to do so, so also true science, as the *imitator of nature in ideas*, will occasionally and in many ways further the usefulness and welfare of man,—*but also without intending to do so*.

But whoever feels too chilled by the breath of such a reflection has perhaps too little fire in himself; let him look around him meanwhile and he will become aware of illnesses which have need of ice-poultices, and of men who are so " kneaded together " of heat and spirit that they can hardly find an atmosphere that is cold and biting enough. Moreover, as individuals and nations that are too serious have need of frivolities, as others too mobile and excitable have need occasionally of heavily oppressing burdens for the sake of their health, should not we, the more *intellectual* people of this age, that grows visibly more and more inflamed, seize all quenching and cooling means that exist, in order that we may at least remain as constant, harmless, and moderate as we still are, and thus, perhaps, serve some time or other as mirror and self-contemplation for this age ?

39.

THE FABLE OF INTELLIGIBLE FREEDOM.—The history of the sentiments by means of which we make a person responsible consists of the following principal phases. First, all single actions are called good or bad without any regard to their motives, but only on account of the useful or injurious consequences which result for the community. But soon the origin of these distinctions is forgotten, and it is deemed that the qualities " good " or " bad " are contained in the action itself without regard to its consequences, by the same error according to which language describes the stone as hard, the tree as green,—with which, in short, the result is regarded as the cause. Then the goodness or badness is implanted in the motive, and the action in itself is looked upon as morally ambiguous.

Mankind even goes further, and applies the predicate good or bad no longer to single motives, but to the whole nature of an individual, out of whom the motive grows as the plant grows out of the earth. Thus, in turn, man is made responsible for his operations, then for his actions, then for his motives, and finally for his nature. Eventually it is discovered that even this nature cannot be responsible, inasmuch as it is an absolutely necessary consequence concentered out of the elements and influences of past and present things,—that man, therefore, cannot be made responsible for anything, neither for his nature, nor his motives, nor his actions, nor his effects. It has therewith come to be recognised that the history of moral valuations is at the same time the history of an error, the error of responsibility, which is based upon the error of the freedom of will. Schopenhauer thus decided against it: because certain actions bring ill humour ("consciousness of guilt") in their train, there must be a responsibility ; for there would be *no reason* for this ill humour if not only all human actions were not done of necessity,—which is actually the case and also the belief of this philosopher,—but man himself from the same necessity is precisely the *being* that he is—which Schopenhauer denies. From the fact of that ill humour Schopenhauer thinks he can prove a liberty which man must somehow have had, not with regard to actions, but with regard to nature ; liberty, therefore, to *be* thus or otherwise, not to *act* thus or otherwise. From the *esse*, the sphere of freedom and responsibility, there results, in his opinion, the *operari*, the sphere of strict causality, necessity, and irresponsibility. This ill humour is apparently directed to the *operari*,—in so far it is erroneous,—but in reality it is directed to the *esse*, which is the deed of a free will, the fundamental cause of the existence of an individual, man becomes that which he *wishes* to be, his will is anterior to his existence. Here the mistaken conclusion is drawn that from the fact of the ill humour, the justification, the reasonable *admissableness* of this ill humour is presupposed ; and starting from this mistaken conclusion, Schopenhauer arrives at his fantastic sequence of the so-called intelligible freedom. But the ill humour after the deed is not necessarily reasonable, indeed it is assuredly not reasonable, for it is based upon the erroneous presumption that the action need *not* have inevitably followed. Therefore, it is only because man *believes* himself to be free, not because he is free, that he experiences remorse and pricks of conscience. Moreover, this ill humour is a habit that can be broken off; in many people it is entirely absent in connection with actions where others experience it. It is a very changeable thing, and one which is connected with the development of customs and culture, and probably only existing during a comparatively short period of the world's history. Nobody is responsible for his actions, nobody for his nature ; to judge is identical with being unjust. This also applies when an individual judges himself. The theory is as clear as sunlight, and yet every one prefers to go back into the shadow and the untruth, for fear of the consequences.

40.

THE SUPER-ANIMAL.—The beast in us wishes to be deceived ; morality is a lie of necessity in order that we may not be torn in pieces by it. Without the errors which lie in the assumption of morality, man would have remained an animal. Thus, however, he has considered himself as something higher and has laid strict laws upon himself. Therefore he hates the grades which have remained nearer to animalness, whereby the former scorn of the slave, as a not-yet-man, is to be explained as a fact.

41.

THE UNCHANGEABLE CHARACTER.—That the character is unchangeable is not true in a strict sense; this favourite theory means, rather, that during the short lifetime of an individual the new influencing motives cannot penetrate deeply enough to destroy the ingrained marks of many thousands of years. But if one were to imagine a man of eighty thousand years, one would have in him an absolutely changeable character, so that a number of different individuals would gradually develop out of him. The shortness of human life misleads us into forming many erroneous ideas about the qualities of man.

42.

THE ORDER OF POSSESSIONS AND MORALITY.—The once-accepted hierarchy of possessions, according as this or the other is coveted by a lower, higher, or highest egoism, now decides what is moral or immoral. To prefer a lesser good (for instance, the gratification of the senses) to a more highly valued good (for instance, health) is

accounted immoral, and also to prefer luxury to liberty. The hierarchy of possessions, however, is not fixed and equal at all times ; if any one prefers vengeance to justice he is moral according to the standard of an earlier civilisation, but immoral according to the present one. To be "immoral," therefore, denotes that an individual has not felt, or not felt sufficiently strongly, the higher, finer, spiritual motives which have come in with a new culture ; it marks one who has remained behind, but only according to the difference of degrees. The order of possessions itself is *not* raised and lowered according to a moral point of view ; but each time that it is fixed it supplies the decision as to whether an action is moral or immoral.

43.

CRUEL PEOPLE AS THOSE WHO HAVE REMAINED BEHIND.—People who are cruel nowadays must be accounted for by us as the grades of earlier civilisations which have survived ; here are exposed those deeper formations in the mountain of humanity which usually remain concealed. They are backward people whose brains, through all manner of accidents in the course of inheritance, have not been developed in so delicate and manifold a way. They show us what we all *were* and horrify us, but they themselves are as little responsible as is a block of granite for being granite. There must, too, be grooves and twists in our brains which answer to that condition of mind, as in the form of certain human organs there are supposed to be traces of a fish-state. But these grooves and twists are no longer the bed through which the stream of our sensation flows.

44.

GRATITUDE AND REVENGE.—The reason why the powerful man is grateful is this : his benefactor, through the benefit he confers, has mistaken and intruded into the sphere of the powerful man, —now the latter, in return, penetrates into the sphere of the benefactor by the act of gratitude. It is a milder form of revenge. Without the satisfaction of gratitude, the powerful man would have shown himself powerless, and would have been reckoned as such ever after. Therefore every society of the good, which originally meant the powerful, places gratitude amongst the first duties.—Swift propounded the maxim that men were grateful in the same proportion as they were revengeful.

45.

THE TWOFOLD EARLY HISTORY OF GOOD AND EVIL.—The conception of good and evil has a twofold early history, namely, *once* in the soul of the ruling tribes and castes. Whoever has the power of returning good for good, evil for evil, and really practises requital, and who is, therefore, grateful and revengeful, is called good ; whoever is powerless, and unable to requite, is reckoned as bad. As a good man one is reckoned among the "good," a community which has common feelings because the single individuals are bound to one another by the sense of requital. As a bad man one belongs to the "bad," to a party of subordinate, powerless people who have no common feeling. The good are a caste, the bad are a mass like dust. Good and bad have for a long time meant the same thing as noble and base, master and slave. On the other hand, the enemy is not looked upon as evil, he can requite. In Homer the Trojan and the Greek are both good. It is not the one who injures us, but the one who is despicable, who is called bad. Good is inherited in the community of the good ; it is impossible that a bad man could spring from such good soil. If, nevertheless, one of the good ones does something which is unworthy of the good, refuge is sought in excuses; the guilt is thrown upon a god, for instance ; it is said that he has struck the good man with blindness and madness.—

Then in the soul of the oppressed and powerless. Here every *other* man is looked upon as hostile, inconsiderate, rapacious, cruel, cunning, be he noble or base ; evil is the distinguishing word for man, even for every conceivable living creature, *e.g.* for a god ; human, divine, is the same thing as devilish, evil. The signs of goodness, helpfulness, pity, are looked upon with fear as spite, the prelude to a terrible result, stupefaction and out-witting,—in short, as refined malice. With such a disposition in the individual a community could hardly exist, or at most it could exist only in its crudest form, so that in all places where this conception of good and evil obtains, the downfall of the single individuals, of their tribes and races, is at hand.—Our present civilisation has grown up on the soil of the *ruling* tribes and castes.

46.

SYMPATHY STRONGER THAN SUFFERING.—There are cases when sympathy is stronger than actual suffering. For instance, we are more pained when one of our friends is guilty of something shameful than when we do it ourselves. For one thing, we have more faith in the purity of his character than he has himself; then our love for him, probably on account of this very faith, is stronger than his love for himself. And even if his egoism suffers more thereby than our egoism, inasmuch as it has to bear more of the bad consequences of his fault, the un-egoistic in us—this word is not to be taken too seriously, but only as a modification of the expression—is more deeply wounded by his guilt than is the un-egoistic in him.

47.

HYPOCHONDRIA.—There are people who become hypochondriacal through their sympathy and concern for another person ; the kind of sympathy which results therefrom is nothing but a disease. Thus there is also a Christian hypochondria, which afflicts those solitary, religiously-minded people who keep constantly before their eyes the sufferings and death of Christ.

48.

ECONOMY OF GOODNESS.—Goodness and love, as the most healing herbs and powers in human intercourse, are such costly discoveries that one would wish as much economy as possible to be exercised in the employment of these balsamic means ; but this is impossible. The economy of goodness is the dream of the most daring Utopians.

49.

GOODWILL.—Amongst the small, but countless frequent and therefore very effective, things to which science should pay more attention than to the great, rare things, is to be reckoned good-will; I mean that exhibition of a friendly disposition in intercourse, that smiling eye, that clasp of the hand, that cheerfulness with which almost all human actions are usually accompanied. Every teacher, every official, adds this to whatever is his duty ; it is the perpetual occupation of humanity, and at the same time the waves of its light, in which everything grows ; in the narrowest circle, namely, within the family, life blooms and flourishes only through that goodwill. Kindliness, friendliness, the courtesy of the heart, are ever-flowing streams of un-egoistic impulses, and have given far more powerful assistance to culture than even those much more famous demonstrations which are called pity, mercy, and self-sacrifice. But they are thought little of, and, as a matter of fact, there is not much that is un-egoistic in them. The *sum* of these small doses is nevertheless mighty, their united force is amongst the strongest forces. Thus one finds much more happiness in the world than sad eyes see, if one only reckons rightly, and does not forget all those moments of comfort in which every day is rich, even in the most harried of human lives.

50.

THE WISH TO AROUSE PITY.—In the most remarkable passage of his auto - portrait (first printed in 1658), La Rochefoucauld assuredly hits the nail on the head when he warns all sensible people against pity, when he advises them to leave that to those orders of the people who have need of passion (because it is not ruled by reason), and to reach the point of helping the suffering and acting energetically in an accident ; while pity, according to his (and Plato's) judgment, weakens the soul. Certainly we should *exhibit* pity, but take good care not to *feel* it, for the unfortunate are so *stupid* that to them the exhibition of pity is the greatest good in the world. One can, perhaps, give a more forcible warning against this feeling of pity if one looks upon that need of the unfortunate not exactly as stupidity and lack of intellect, a kind of mental derangement which misfortune brings with it (and as such, indeed, La Rochefoucauld appears to regard it), but as something quite different and more serious. Observe children, who cry and scream *in order* to be pitied, and therefore wait for the moment when they will be noticed ; live in intercourse with the sick and mentally oppressed, and ask yourself whether that ready complaining and whimpering, that making a show of misfortune, does not, at bottom, aim at *making the spectators miserable*; the pity which the spectators then exhibit is in so far a consolation for the weak and suffering in that the latter recognise therein that they *possess still one power*, in spite of their weakness, *the power of giving pain*. The unfortunate derives a sort of pleasure from this

feeling of superiority, of which the exhibition of pity makes him conscious ; his imagination is exalted, he is still powerful enough to give the world pain. Thus the thirst for pity is the thirst for self-gratification, and that, moreover, at the expense of his fellow-men ; it shows man in the whole inconsiderateness of his own dear self, but not exactly in his "stupidity," as La Rochefoucauld thinks. In society-talk three-fourths of all questions asked and of all answers given are intended to cause the interlocutor a little pain ; for this reason so many people pine for company ; it enables them to feel their power. There is a powerful charm of life in such countless but very small doses in which malice makes itself felt, just as goodwill, spread in the same way throughout the world, is the ever-ready means of healing. But are there many honest people who will admit that it is pleasing to give pain? that one not infrequently amuses one's self—and amuses one's self very well—in causing mortifications to others, at least in thought, and firing off at them the grape-shot of petty malice ? Most people are too dishonest, and a few are too good, to know anything of this *pudendum* ; these will always deny that Prosper Mérimée is right when he says, "*Sachez aussi qu'il n'y a rien de plus commun que de faire le mal pour le plaisir de le faire.*"

51.

HOW APPEARANCE BECOMES ACTUALITY.—The actor finally reaches such a point that even in the deepest sorrow he cannot cease from thinking about the impression made by his own person and the general scenic effect ; for instance, even at the funeral of his child, he will weep over his own sorrow and its expression like one of his own audience. The hypocrite, who always plays one and the same part, ceases at last to be a hypocrite ; for instance, priests, who as young men are generally conscious or unconscious hypocrites, become at last natural, and are then really without any affectation, just priests ; or if the father does not succeed so far, perhaps the son does, who makes use of his father's progress and inherits his habits. If any one long and obstinately desires to *appear* something, he finds it difficult at last to *be* anything else. The profession of almost every individual, even of the artist, begins with hypocrisy, with an imitating from without, with a copying of the effective. He who always wears the mask of a friendly expression must eventually obtain a power over well-meaning dispositions without which the expression of friendliness is not to be compelled,—and finally, these, again, obtain a power over him, he *is* well-meaning.

52.

THE POINT OF HONOUR IN DECEPTION.—In all great deceivers one thing is noteworthy, to which they owe their power. In the actual act of deception, with all their preparations, the dreadful voice, expression, and mien, in the midst of their effective scenery they are overcome by their *belief in themselves* ; it is this, then, which speaks so wonderfully and persuasively to the spectators. The founders of religions are distinguished from those great deceivers in that they never awake from their condition of self-deception ; or at times, but very rarely, they have an enlightened moment when doubt overpowers them ; they generally console themselves, however, by ascribing these enlightened moments to the influence of the Evil One. There must be self-deception in order that this and that may *produce* great *effects*. For men believe in the truth of everything that is visibly, strongly believed in.

53.

THE NOMINAL DEGREES OF TRUTH.—One of the commonest mistakes is this : because some one is truthful and honest towards us, he must speak the truth. Thus the child believes in its parents' judgment, the Christian in the assertions of the Founder of the Church. In the same way men refuse to admit that all those things which men defended in former ages with the sacrifice of life and happiness were nothing but errors ; it is even said, perhaps, that they were degrees of the truth. But what is really meant is that when a man has honestly believed in something, and has fought and died for his faith, it would really be too *unjust* if he had only been inspired by an error. Such a thing seems a contradiction of eternal justice ; therefore the heart of sensitive man ever enunciates against his head the axiom : between moral action and intellectual insight there must absolutely be a necessary connection. It is unfortunately otherwise ; for there is no eternal justice.

54.

FALSEHOOD.—Why do people mostly speak the truth in daily life?—Assuredly not because a god has forbidden falsehood. But, firstly, because it is more convenient, as falsehood requires invention, deceit, and memory. (As Swift

says, he who tells a lie is not sensible how great a task he undertakes ; for in order to uphold one lie he must invent twenty others.) Therefore, because it is advantageous in upright circumstances to say straight out, " I want this, I have done that," and so on ; because, in other words, the path of compulsion and authority is surer than that of cunning. But if a child has been brought up in complicated domestic circumstances, he employs falsehood, naturally and unconsciously says whatever best suits his interests ; a sense of truth and a hatred of falsehood are quite foreign and unknown to him, and so he lies in all innocence.

55.

THROWING SUSPICION ON MORALITY FOR FAITH'S SAKE.—No power can be maintained when it is only represented by hypocrites ; no matter how many " worldly " elements the Catholic Church possesses, its strength lies in those still numerous priestly natures who render life hard and full of meaning for themselves, and whose glance and worn bodies speak of nocturnal vigils, hunger, burning prayers, and perhaps even of scourging; these move men and inspire them with fear. What if it were *necessary* to live thus ? This is the terrible question which their aspect brings to the lips. Whilst they spread this doubt they always uprear another pillar of their power ; even the free-thinker does not dare to withstand such unselfishness with hard words of truth, and to say, "Thyself deceived, deceive not others!" Only the difference of views divides them from him, certainly no difference of goodness or badness ; but men generally treat unjustly that which they do not like. Thus we speak of the cunning and the infamous art of the Jesuits, but overlook the self-control which every individual Jesuit practises, and the fact that the lightened manner of life preached by Jesuit books is by no means for their benefit, but for that of the laity. We may even ask whether, with precisely similar tactics and organisation, we enlightened ones would make equally good tools, equally admirable through self-conquest, indefatigableness, and renunciation.

56.

VICTORY OF KNOWLEDGE OVER RADICAL EVIL.—It is of great advantage to him who desires to be wise to have witnessed for a time the spectacle of a thoroughly evil and degenerate man ; it is false, like the contrary spectacle, but for whole long periods it held the mastery, and its roots have even extended and ramified themselves to us and our world. In order to understand *ourselves* we must understand *it*; but then, in order to mount higher we must rise above it. We recognise, then, that there exist no sins in the metaphysical sense ; but, in the same sense, also no virtues ; we recognise that the entire domain of ethical ideas is perpetually tottering, that there are higher and deeper conceptions of good and evil, of moral and immoral. He who does not desire much more from things than a knowledge of them easily makes peace with his soul, and will make a mistake (or commit a sin, as the world calls it) at the most from ignorance, but hardly from covetousness. He will no longer wish to excommunicate and exterminate desires ; but his only, his wholly dominating ambition, to *know* as well as possible at all times, will make him cool and will soften all the savageness in his disposition. Moreover, he has been freed from a number of tormenting conceptions, he has no more feeling at the mention of the words " punishments of hell," " sinfulness," " incapacity for good," he recognises in them only the vanishing shadow-pictures of false views of the world and of life.

57.

MORALITY AS THE SELF-DISINTEGRATION OF MAN.—A good author, who really has his heart in his work, wishes that some one could come and annihilate him by representing the same thing in a clearer way and answering without more ado the problems therein proposed. The loving girl wishes she could prove the self-sacrificing faithfulness of her love by the unfaithfulness of her beloved. The soldier hopes to die on the field of battle for his victorious fatherland ; for his loftiest desires triumph in the victory of his country. The mother gives to the child that of which she deprives herself—sleep, the best food, sometimes her health and fortune. But are all these un-egoistic conditions ? Are these deeds of morality *miracles*, because, to use Schopenhauer's expression, they are " impossible and yet performed " ? Is it not clear that in all four cases the individual loves *something of himself*, a thought, a desire, a production, better than *anything else of himself*; that he therefore divides his nature and to one part sacrifices all the rest? Is it something *entirely* different when an obstinate man says, " I would rather be shot than

move a step out of my way for this man " ? The *desire for something* (wish, inclination, longing) is present in all the instances mentioned ; to give way to it, with all its consequences, is certainly not " un-egoistic." —In ethics man does not consider himself as *individuum* but as *dividuum*.

58.

WHAT ONE MAY PROMISE.—One may promise actions, but no sentiments, for these are involuntary. Whoever promises to love or hate a person, or be faithful to him for ever, promises something which is not within his power; he can certainly promise such actions as are usually the results of love, hate, or fidelity, but which may also spring from other motives ; for many ways and motives lead to one and the same action. The promise to love some one for ever is, therefore, really : So long as I love you I will act towards you in a loving way ; if I cease to love you, you will still receive the same treatment from me, although inspired by other motives, so that our fellow-men will still be deluded into the belief that our love is unchanged and ever the same. One promises therefore, the continuation of the semblance of love, when, without self-deception, one speaks vows of eternal love.

59.

INTELLECT AND MORALITY.—One must have a good memory to be able to keep a given promise. One must have a strong power of imagination to be able to feel pity. So closely is morality bound to the goodness of the intellect.

60.

TO WISH FOR REVENGE AND TO TAKE REVENGE.—To have a revengeful thought and to carry it into effect is to have a violent attack of fever, which passes off, however,—but to have a revengeful thought without the strength and courage to carry it out is a chronic disease, a poisoning of body and soul which we have to bear about with us. Morality, which only takes intentions into account, considers the two cases as equal ; usually the former case is regarded as the worse (because of the evil consequences which may perhaps result from the deed of revenge). Both estimates are short-sighted.

61.

THE POWER OF WAITING.—Waiting is so difficult that even great poets have not disdained to take incapability of waiting as the motive for their works. Thus Shakespeare in Othello or Sophocles in Ajax, to whom suicide, had he been able to let his feelings cool down for one day, would no longer have seemed necessary, as the oracle intimated ; he would probably have snapped his fingers at the terrible whisperings of wounded vanity, and said to himself, " Who has not already, in my circumstances, mistaken a fool for a hero ? Is it something so very extraordinary?" On the contrary, it is something very commonly human ; Ajax might allow himself that consolation. Passion will not wait ; the tragedy in the lives of great men frequently lies *not* in their conflict with the times and the baseness of their fellow-men, but in their incapacity of postponing their work for a year or two; they cannot wait. In all duels advising friends have one thing to decide, namely whether the parties concerned can still wait awhile; if this is not the case, then a duel is advisable, inasmuch as each of the two says, "Either I continue to live and that other man must die immediately, or *vice versa*." *In such case waiting would mean a prolonged suffering of the terrible martyrdom of wounded honour in the face of the insulter, and this may entail more suffering than life is worth.*

62.

REVELLING IN VENGEANCE.—Coarser individuals who feel themselves insulted, make out the insult to be as great as possible, and relate the affair in greatly exaggerated language, in order to be able to revel thoroughly in the rarely awakened feelings of hatred and revenge.

63.

THE VALUE OF DISPARAGEMENT.—In order to maintain their self-respect in their own eyes and a certain thoroughness of action, not a few men, perhaps even the majority, find it absolutely necessary to run down and disparage all their acquaintances. But as mean natures are numerous, and since it is very important whether they possess that thoroughness or lose it, hence—

64.

THE MAN IN A PASSION.—We must beware of one who is in a passion against us as of one who has once sought our life ; for the fact that we still live is due to the absence of power to kill,—if looks would suffice, we should have been dead long ago. It is a piece of rough civilisation to force some one into silence by the exhibition of physical savageness and the inspiring of fear. That cold glance which exalted persons employ towards their servants is also a relic of that caste division between man and man, a piece of rough antiquity ; women, the preservers of ancient things, have also faithfully retained this *survival* of an ancient habit.

65.

WHITHER HONESTY CAN LEAD.—Somebody had the bad habit of occasionally talking quite frankly about the motives of his actions, which were as good and as bad as the motives of most men. He first gave offence, then aroused suspicion, was then gradually excluded from society and declared a social outlaw, until at last justice remembered such an abandoned creature, on occasions when it would otherwise have had no eyes, or would have closed them. The lack of power to hold his tongue concerning the common secret, and the irresponsible tendency to see what no one wishes to see—himself—brought him to a prison and an early death.

66.

PUNISHABLE, BUT NEVER PUNISHED.—Our crime against criminals lies in the fact that we treat them like rascals.

67.

SANCTA SIMPLICITAS OF VIRTUE.—Every virtue has its privileges; for example, that of contributing its own little faggot to the scaffold of every condemned man.

68.

MORALITY AND CONSEQUENCES.—It is not only the spectators of a deed who frequently judge of its morality or immorality according to its consequences, but the doer of the deed himself does so. For the motives and intentions are seldom sufficiently clear and simple, and sometimes memory itself seems clouded by the consequences of the deed, so that one ascribes the deed to false motives or looks upon unessential motives as essential. Success often gives an action the whole honest glamour of a good conscience; failure casts the shadow of remorse over the most estimable deed. Hence arises the well-known practice of the politician, who thinks, "Only grant me success, with that I bring all honest souls over to my side and make myself honest in my own eyes." In the same way success must replace a better argument. Many educated people still believe that the triumph of Christianity over Greek philosophy is a proof of the greater truthfulness of the former,—although in this case it is only the coarser and more powerful that has triumphed over the more spiritual and delicate. Which possesses the greater truth may be seen from the fact that the awakening sciences have agreed with Epicurus' philosophy on point after point, but on point after point have rejected Christianity.

69.

LOVE AND JUSTICE.—Why do we over-estimate love to the disadvantage of justice, and say the most beautiful things about it, as if it were something very much higher than the latter? Is it not visibly more stupid than justice? Certainly, but precisely for that reason all the *pleasanter* for every one. It is blind, and possesses an abundant cornucopia, out of which it distributes its gifts to all, even if they do not deserve them, even if they express no thanks for them. It is as impartial as the rain, which, according to the Bible and experience, makes not only the unjust, but also occasionally the just wet through to the skin.

70.

EXECUTION.—How is it that every execution offends us more than does a murder ? It is the coldness of the judges, the painful preparations, the conviction that a human being is here being used as a warning to scare others. For the guilt is not punished, even if it existed—it lies with educators, parents, surroundings, in ourselves, not in the murderer—I mean the determining circumstances.

71

HOPE.—Pandora brought the box of ills and opened it. It was the gift of the gods to men, outwardly a beautiful and seductive gift, and called the Casket of Happiness. Out of it flew all the evils, living winged creatures, thence they now circulate and do men injury day and night. One single evil had not yet escaped from the box, and by the will of Zeus Pandora closed the lid and it remained within. Now for ever man has the casket of happiness in his house and thinks he holds a great treasure ; it is at his disposal, he stretches out his hand for it whenever he desires ; for he does not know the box which Pandora brought was the casket of evil, and he believes the ill which remains within to be the greatest blessing, —it is hope. Zeus did not wish man, however much he might be tormented by the other evils, to fling away his life, but to go on letting himself be tormented again and again. Therefore he gives man hope,—in reality it is the worst of all evils, because it prolongs the torments of man.

72.

THE DEGREE OF MORAL INFLAMMABILITY UNKNOWN.—According to whether we have or have not had certain disturbing views and impressions—for instance, an unjustly executed, killed, or martyred father ; a faithless wife ; a cruel hostile attack—it depends whether our passions reach fever heat and influence our whole life or not. No one knows to what he may be driven by circumstances, pity, or indignation ; he does not know the degree of his own inflammability. Miserable little circumstances make us miserable ; it is generally not the quantity of experiences, but their quality, on which lower and higher man depends, in good and evil.

73.

THE MARTYR IN SPITE OF HIMSELF.—There was a man belonging to a party who was too nervous and cowardly ever to contradict his comrades ; they made use of him for everything, they demanded everything from him, because he was more afraid of the bad opinion of his companions than of death itself; his was a miserable, feeble soul. They recognised this, and on the ground of these qualities they made a hero of him, and finally even a martyr. Although the coward inwardly always said No, with his lips he always said Yes, even on the scaffold, when he was about to die for the opinions of his party ; for beside him stood one of his old companions, who so tyrannised over him by word and look that he really suffered death in the most respectable manner, and has ever since been celebrated as a martyr and a great character.

74.

THE EVERY-DAY STANDARD.—One will seldom go wrong if one attributes extreme actions to vanity, average ones to habit, and petty ones to fear.

75.

MISUNDERSTANDING CONCERNING VIRTUE.—Whoever has known immorality in connection with pleasure, as is the case with a man who has a pleasure-seeking youth behind him, imagines that virtue must be connected with absence of pleasure.—Whoever, on the contrary, has been much plagued by his passions and vices, longs to find in virtue peace and the soul's happiness. Hence it is possible for two virtuous persons not to understand each other at all.

76.

THE ASCETIC.—The ascetic makes a necessity of virtue.

77.

TRANSFERRING HONOUR FROM THE PERSON TO THE THING.—Deeds of love and sacrifice for the benefit of one's neighbour are generally honoured, wherever they are manifested. Thereby we multiply the valuation of things which are thus loved, or for which we sacrifice ourselves, although perhaps they are not worth much in themselves. A brave army is convinced of the cause for which it fights.

78.

AMBITION A SUBSTITUTE FOR THE MORAL SENSE.—The moral sense must not be lacking in those natures which have no ambition. The ambitious manage without it, with almost the same results. For this reason the sons of unpretentious, unambitious families, when once they lose the moral sense, generally degenerate very quickly into complete scamps.

79.

VANITY ENRICHES.—How poor would be the human mind without vanity! Thus, however, it resembles a well-stocked and constantly replenished bazaar which attracts buyers of every kind. There they can find almost everything, obtain almost everything, provided that they bring the right sort of coin, namely admiration.

80.

OLD AGE AND DEATH.—Apart from the commands of religion, the question may well be asked, Why is it more worthy for an old man who feels his powers decline, to await his slow exhaustion and extinction than with full consciousness to set a limit to his life? Suicide in this case is a perfectly natural, obvious action, which should justly arouse respect as a triumph of reason, and did arouse it in those times when the heads of Greek philosophy and the sturdiest patriots used to seek death through suicide. The seeking, on the contrary, to prolong existence from day to day, with anxious consultation of doctors and painful mode of living, without the power of drawing nearer to the actual aim of life, is far less worthy. Religion is rich in excuses to reply to the demand for suicide, and thus it ingratiates itself with those who wish to cling to life.

81.

ERRORS OF THE SUFFERER AND THE DOER.—When a rich man deprives a poor man of a possession (for instance, a prince taking the sweetheart of a plebeian), an error arises in the mind of the poor man; he thinks that the rich man must be utterly infamous to take away from him the little that he has. But the rich man does not estimate so highly the value of a *single* possession, because he is accustomed to have many; hence he cannot imagine himself in the poor man's place, and does not commit nearly so great a wrong as the latter supposes. They each have a mistaken idea of the other. The injustice of the powerful, which, more than anything else, rouses indignation in history, is by no means so great as it appears. Alone the mere inherited consciousness of being a higher creation, with higher claims, produces a cold temperament, and leaves the conscience quiet; we all of us feel no injustice when the difference is very great between ourselves and another creature, and kill a fly, for instance, without any pricks of conscience. Therefore it was no sign of badness in Xerxes (whom even all Greeks describe as superlatively noble) when he took a son away from his father and had him cut in pieces, because he had expressed a nervous, ominous distrust of the whole campaign; in this case the individual is put out of the way like an unpleasant insect; he is too lowly to be allowed any longer to cause annoyance to a ruler of the world. Yes, every cruel man is not so cruel as the ill-treated one imagines; the idea of pain is not the same as its endurance. It is the same thing in the case of unjust judges, of the journalist who leads public opinion astray by small dishonesties. In all these cases cause and effect are surrounded by entirely different groups of feelings and thoughts; yet one unconsciously takes it for granted that doer and sufferer think and feel alike, and according to this supposition we measure the guilt of the one by the pain of the other.

82.

THE SKIN OF THE SOUL.—As the bones, flesh, entrails, and blood-vessels are enclosed within a skin, which makes the aspect of man endurable, so the emotions and passions of the soul are enwrapped with vanity,—it is the skin of the soul.

83

THE SLEEP OF VIRTUE.—When virtue has slept, it will arise again all the fresher.

84.

THE REFINEMENT OF SHAME.—People are not ashamed to think something foul, but they are ashamed when they think these foul thoughts are attributed to them.

85.

MALICE IS RARE.—Most people are far too much occupied with themselves to be malicious.

86.

THE TONGUE IN THE BALANCE.—We praise or blame according as the one or the other affords more opportunity for exhibiting our power of judgment.

87.

ST. LUKE XVIII. 14, IMPROVED.—He that humbleth himself wishes to be exalted.

88.

THE PREVENTION OF SUICIDE.—There is a certain right by which we may deprive a man of life, but none by which we may deprive him of death ; this is mere cruelty.

89 .

VANITY.—We care for the good opinion of men, firstly because they are useful to us, and then because we wish to please them (children their parents, pupils their teachers, and well-meaning people generally their fellow-men). Only where the good opinion of men is of importance to some one, apart from the advantage thereof or his wish to please, can we speak of vanity. In this case the man wishes to please himself, but at the expense of his fellow-men, either by misleading them into holding a false opinion about him, or by aiming at a degree of " good opinion " which must be painful to every one else (by arousing envy). The individual usually wishes to corroborate the opinion he holds of himself by the opinion of others, and to strengthen it in his own eyes ; but the strong habit of authority—a habit as old as man himself —induces many to support by authority their belief in themselves : that is to say, they accept it first from others; they trust the judgment of others more than their own. The interest in himself, the wish to please himself, attains to such a height in a vain man that he misleads others into having a false, all too elevated estimation of him, and yet nevertheless sets store by their authority,—thus causing an error and yet believing in it. It must be confessed, therefore, that vain people do not wish to please others so much as themselves, and that they go so far therein as to neglect their advantage, for they often endeavour to prejudice their fellow - men unfavourably, inimicably, enviously, consequently injuriously against themselves, merely in order to have pleasure in themselves, personal pleasure.

90.

THE LIMITS OF HUMAN LOVE.—A man who has declared that another is an idiot and a bad companion, is angry when the latter eventually proves himself to be otherwise.

91.

MORALITÉ LARMOYANTE.—What a great deal of pleasure morality gives ! Only think what a sea of pleasant tears has been shed over descriptions of noble and unselfish deeds ! This charm of life would vanish if the belief in absolute irresponsibility were to obtain supremacy.

92.

THE ORIGIN OF JUSTICE.—Justice (equity) has its origin amongst powers which are fairly equal, as Thucydides (in the terrible dialogue between the Athenian and Melian ambassadors) rightly comprehended : that is to say, where there is no clearly recognisable supremacy, and where a conflict would be useless and would injure both sides, there arises the thought of coming to an understanding and settling the opposing claims ; the character of *exchange* is the primary character of justice. Each party satisfies the other, as each obtains what he values more than the other. Each one receives that which he desires, as his own henceforth, and whatever is desired is received in return. Justice, therefore, is recompense and exchange based on the hypothesis of a fairly equal degree of power,—thus, originally, revenge belongs to the province of justice, it is an exchange. Also gratitude.—Justice naturally is based on the point of view of a judicious self-preservation, on the egoism, therefore, of that reflection, " Why should I injure myself uselessly and perhaps not attain my aim after all?" So much about the *origin* of justice. Because man, according to

his intellectual custom, has *forgotten* the original purpose of so-called just and reasonable actions, and particularly because for hundreds of years children have been taught to admire and imitate such actions, the idea has gradually arisen that such an action is un-egoistic ; upon this idea, however, is based the high estimation in which it is held : which, moreover, like all valuations, is constantly growing, for something that is valued highly is striven after, imitated, multiplied, and increases, because the value of the output of toil and enthusiasm of each individual is added to the value of the thing itself. How little moral would the world look without this forgetfulness! A poet might say that God had placed forgetfulness as door-keeper in the temple of human dignity.

93.

THE RIGHT OF THE WEAKER.—When any one submits under certain conditions to a greater power, as a besieged town for instance, the counter-condition is that one can destroy one's self, burn the town, and so cause the mighty one a great loss. Therefore there is a kind of *equalisation* here, on the basis of which rights may be determined. The enemy has his advantage in maintaining it. In so far there are also rights between slaves and masters, that is, precisely so far as the possession of the slave is useful and important to his master. The *right* originally extends *so far as* one *appears* to be valuable to the other, essentially unlosable, unconquerable, and so forth. In so far the weaker one also has rights, but lesser ones. Hence the famous *unusquisque tantum juris habet, quantum potentia valet* (or more exactly, *quantum potentia valere creditur*).

94.

THE THREE PHASES OF HITHERTO EXISTING MORALITY.—It is the first sign that the animal has become man when its actions no longer have regard only to momentary welfare, but to what is enduring, when it grows *useful* and *practical*; here the free rule of reason first breaks out. A still higher step is reached when he acts according to the principle of *honour*; by this means he brings himself into order, submits to common feelings and that exalts him still higher over the phase in which he was led only by the idea of usefulness from a personal point of view ; he respects and wishes to be respected, i.e. he understands usefulness as dependent upon what he thinks of others and what others think of him. Eventually he acts, on the highest step of the *hitherto* existing morality, according to *his* standard of things and men ; he himself decides for himself and others what is honourable, what is useful ; he has become the law-giver of opinions, in accordance with the ever more highly developed idea of what is useful and honourable. Knowledge enables him to place that which is most useful, that is to say the general, enduring usefulness, above the personal, the honourable recognition of general, enduring validity above the momentary ; he lives and acts as a collective individual.

95.

THE MORALITY OF THE MATURE INDIVIDUAL.—The impersonal has hitherto been looked upon as the actual distinguishing mark of moral action ; and it has been pointed out that in the beginning it was in consideration of the common good that all impersonal actions were praised and distinguished. Is not an important change in these views impending, now when it is more and more recognised that it is precisely in the most *personal* possible considerations that the common good is the greatest, so that a *strictly personal* action now best illustrates the present idea of morality, as utility for the mass? To make a whole *personality* out of ourselves, and in all that we do to keep that personality's *highest good* in view, carries us further than those sympathetic emotions and actions for the benefit of others. We all still suffer, certainly, from the too small consideration of the personal in us ; it is badly developed,—let us admit it ; rather has our mind been forcibly drawn away from it and offered as a sacrifice to the State, to science, or to those who stand in need of help, as if it were the bad part which must be sacrificed. We are still willing to work for our fellow-men, but only so far as we find our own greatest advantage in this work, no more and no less. It is only a question of what we understand as *our advantage*; the unripe, undeveloped, crude individual will understand it in the crudest way.

96.

CUSTOM AND MORALITY.—To be moral, correct, and virtuous is to be obedient to an old-established law and custom. Whether we submit with difficulty or willingly is immaterial, enough that we do so. He is called " good "

who, as if naturally, after long precedent, easily and willingly, therefore, does what is right, according to whatever this may be (as, for instance, taking revenge, if to take revenge be considered as right, as amongst the ancient Greeks). He is called good because he is good "for something"; but as goodwill, pity, consideration, moderation, and such like, have come, with the change in manners, to be looked upon as "good for something," as useful, the good-natured and helpful have, later on, come to be distinguished specially as "good." (In the beginning other and more important kinds of usefulness stood in the foreground.) To be evil is to be "not moral" (immoral), to be immoral is to be in opposition to tradition, however sensible or stupid it may be; injury to the community (the "neighbour" being understood thereby) has, however, been looked upon by the social laws of all different ages as being eminently the actual "immorality," so that now at the word "evil" we immediately think of voluntary injury to one's neighbour. The fundamental antithesis which has taught man the distinction between moral and immoral, between good and evil, is not the "egoistic" and "un-egoistic," but the being bound to the tradition, law, and solution thereof. How the tradition has *arisen* is immaterial, at all events without regard to good and evil or any immanent categorical imperative, but above all for the purpose of preserving a *community*, a generation, an association, a people; every superstitious custom that has arisen on account of some falsely explained accident, creates a tradition, which it is moral to follow; to separate one's self from it is dangerous, but more dangerous for the *community* than for the individual (because the Godhead punishes the community for every outrage and every violation of its rights, and the individual only in proportion). Now every tradition grows continually more venerable, the farther off lies its origin, the more this is lost sight of; the generation paid it accumulates from generation to generation, the tradition at last becomes holy and excites awe; and thus in any case the morality of piety is a much older morality than that which requires un-egoistic actions.

97.

PLEASURE IN TRADITIONAL CUSTOM.—An important species of pleasure, and therewith the source of morality, arises out of habit. Man does what is habitual to him more easily, better, and therefore more willingly; he feels a pleasure therein, and knows from experience that the habitual has been tested, and is therefore useful; a custom that we can live with is proved to be wholesome and advantageous in contrast to all new and not yet tested experiments. According to this, morality is the union of the pleasant and the useful; moreover, it requires no reflection. As soon as man can use compulsion, he uses it to introduce and enforce his *customs*; for in his eyes they are proved as the wisdom of life. In the same way a company of individuals compels each single one to adopt the same customs. Here the inference is wrong; because we feel at ease with a morality, or at least because we are able to carry on existence with it, therefore this morality is necessary, for it seems to be the *only* possibility of feeling at ease; the ease of life seems to grow out of it alone. This comprehension of the habitual as a necessity of existence is pursued even to the smallest details of custom,—as insight into genuine causality is very small with lower peoples and civilisations, they take precautions with superstitious fear that everything should go in its same groove; even where custom is difficult, hard, and burdensome, it is preserved on account of its apparent highest usefulness. It is not known that the same degree of well-being can also exist with other customs, and that even higher degrees may be attained. We become aware, however, that all customs, even the hardest, grow pleasanter and milder with time, and that the severest way of life may become a habit and therefore a pleasure.

98.

PLEASURE AND SOCIAL INSTINCT.—Out of his relations with other men, man obtains a new species of *pleasure* in addition to those pleasurable sensations which he derives from himself; whereby he greatly increases the scope of enjoyment. Perhaps he has already taken too many of the pleasures of this sphere from animals, which visibly feel pleasure when they play with each other, especially the mother with her young. Then consider the sexual relations, which make almost every female interesting to a male with regard to pleasure, and vice versa. The feeling of pleasure on the basis of human relations generally makes man better; joy in common, pleasure enjoyed together is increased, it gives the individual security, makes him good-tempered, and dispels mistrust and envy, for we feel ourselves at ease and see others at ease. *Similar manifestations of pleasure* awaken the idea of the same sensations,

the feeling of being like something ; a like effect is produced by common sufferings, the same bad weather, dangers, enemies. Upon this foundation is based the oldest alliance, the object of which is the mutual obviating and averting of a threatening danger for the benefit of each individual. And thus the social instinct grows out of pleasure.

99.

THE INNOCENT SIDE OF SO-CALLED EVIL ACTIONS.—All "evil" actions are prompted by the instinct of preservation, or, more exactly, by the desire for pleasure and the avoidance of pain on the part of the individual ; thus prompted, but not evil. " To cause pain *per se* " *does not exist*, except in the brains of philosophers, neither does " to give pleasure *per se* " (pity in Schopenhauer's meaning). In the social condition *before* the State we kill the creature, be it ape or man, who tries to take from us the fruit of a tree when we are hungry and approach the tree, as we should still do with animals in inhospitable countries. The evil actions which now most rouse our indignation, are based upon the error that he who causes them has a free will, that he had the option, therefore, of not doing us this injury. This belief in option arouses hatred, desire for revenge, spite, and the deterioration of the whole imagination, while we are much less angry with an animal because we consider it irresponsible. To do injury, not from the instinct of preservation, but as *requital*, is the consequence of a false judgment and therefore equally innocent. The individual can in the condition which lies before the State, act sternly and cruelly towards other creatures for the purpose of *terrifying*, to establish his existence firmly by such terrifying proofs of his power. Thus act the violent, the mighty, the original founders of States, who subdue the weaker to themselves. They have the right to do so, such as the State still takes for itself; or rather, there is no right that can hinder this. The ground for all morality can only be made ready when a stronger individual or a collective individual, for instance society or the State, subdues the single individuals, draws them out of their singleness, and forms them into an association. *Compulsion* precedes morality, indeed morality itself is compulsion for a time, to which one submits for the avoidance of pain. Later on it becomes custom,—later still, free obedience, and finally almost instinct, then, like everything long accustomed and natural, it is connected with pleasure—and is henceforth called virtue.

100.

SHAME.—Shame exists everywhere where there is a " mystery " ; this, however, is a religious idea, which was widely extended in the older times of human civilisation. Everywhere were found bounded domains to which access was forbidden by divine right, except under certain conditions; at first locally, as, for example, certain spots that ought not to be trodden by the feet of the uninitiated, in the neighbourhood of which these latter experienced horror and fear. This feeling was a good deal carried over into Bother relations, for instance, the sex relations, which, as a privilege and *ἀδύτων* of riper years, had to be withheld from the knowledge of the young for their advantage, relations for the protection and sanctification of which many gods were invented and were set up as guardians in the nuptial chamber. (In Turkish this room is on this account called harem, " sanctuary," and is distinguished with the same name, therefore, that is used for the entrance courts of the mosques.) Thus the kingdom is as a centre from which radiate power and glory, to the subjects a mystery full of secrecy and shame, of which many after-effects may still be felt among nations which otherwise do not by any means belong to the bashful type. Similarly, the whole world of inner conditions, the so-called " soul," is still a mystery for all who are not philosophers, after it has been looked upon for endless ages as of divine origin and as worthy of divine intercourse ; according to this it is an *ἀδύτων* and arouses shame.

101.

JUDGE NOT.—In considering earlier periods, care must be taken not to fall into unjust abuse. The injustice in slavery, the cruelty in the suppression of persons and nations, is not to be measured by our standard. For the instinct of justice was not then so far developed. Who dares to reproach the Genevese Calvin with the burning of the physician Servet? It was an action following and resulting from his convictions, and in the same way the Inquisition had a good right ; only the ruling views were false, and produced a result which seems hard to us because those views have now grown strange to us. Besides, what is the burning of a single individual compared with eternal pains of hell for almost all! And yet this idea was universal at that time, without essentially injuring by its dreadfulness the

conception of a God. With us, too, political sectarians are hardly and cruelly treated, but because one is accustomed to believe in the necessity of the State, the cruelty is not so deeply felt here as it is where we repudiate the views. Cruelty to animals in children and Italians is due to ignorance, i.e. the animal, through the interests of Church teaching, has been placed too far behind man. Much that is dreadful and inhuman in history, much that one hardly likes to believe, is mitigated by the reflection that the one who commands and the one who carries out are different persons, the former does not behold the right and therefore does not experience the strong impression on the imagination ; the latter obeys a superior and therefore feels no responsibility. Most princes and military heads, through lack of imagination, easily appear hard and cruel without really being so. *Egoism is not evil* because the idea of the "neighbour"—the word is of Christian origin and does not represent the truth—is very weak in us ; and we feel ourselves almost as free and irresponsible towards him as towards plants and stones. We have yet to *learn* that others suffer, and this can never be completely learnt.

102.

"MAN ALWAYS ACTS RIGHTLY."—We do not complain of nature as immoral because it sends a thunderstorm and makes us wet,—why do we call those who injure us immoral ? Because in the latter case we take for granted a free will functioning voluntarily ; in the former we see necessity. But this distinction is an error. Thus we do not call even intentional injury immoral in all circumstances ; for instance, we kill a fly unhesitatingly and intentionally, only because its buzzing annoys us ; we punish a criminal intentionally and hurt him in order to protect ourselves and society. In the first case it is the individual who, in order to preserve himself, or even to protect himself from worry, does intentional injury ; in the second case it is the State. All morals allow intentional injury in *the case of necessity*, that is, when it is a matter of *self-preservation!* But these two points of view suffice to explain all evil actions committed by men against men, we are desirous of obtaining pleasure or avoiding pain ; in any case it is always a question of self-preservation. Socrates and Plato are right : whatever man does he always does well, that is, he does that which seems to him good (useful) according to the degree of his intellect, the particular standard of his reasonableness.

103.

THE HARMLESSNESS OF MALICE.—The aim of malice is *not* the suffering of others in itself, but our own enjoyment ; for instance, as the feeling of revenge, or stronger nervous excitement. All teasing, even, shows the pleasure it gives to exercise our power on others and bring it to an I enjoyable feeling of preponderance. Is it *immoral* to taste pleasure at the expense of another's pain ? Is malicious joy ^[6] devilish, as Schopenhauer says ? We give ourselves pleasure in nature by breaking off twigs, loosening stones, fighting with wild animals, and do this in order to become thereby conscious of our strength. Is the knowledge, therefore, that another suffers through us, the same thing concerning which we otherwise feel irresponsible, supposed to make us immoral ? But if we did not know this we would not thereby have the enjoyment of our own superiority, which can only *manifest* itself by the suffering of others, for instance, in teasing. All pleasure *per se* is neither good nor evil ; whence should come the decision that in order to have pleasure ourselves we may not cause displeasure to others ? From the point of view of usefulness alone, that is, out of consideration for the *consequences*, for *possible* displeasure, when the injured one or the replacing State gives the expectation of resentment and revenge : this only can have been the original reason for denying ourselves such actions. *Pity* aims just as little at the pleasure of others as malice at the pain of others *per se*. For it contains at least two (perhaps many more) elements of a personal pleasure, and is so far self-gratification ; in the first place as the pleasure of emotion, which is the kind of pity that exists in tragedy, and then, when it impels to action, as the pleasure of satisfaction in the exercise of power. If, besides this, a suffering person is very dear to us, we lift a sorrow from ourselves by the exercise of sympathetic actions. Except by a few philosophers, pity has always been placed very low in the scale of moral feelings, and rightly so.

104.

SELF-DEFENCE.—If self-defence is allowed to pass as moral, then almost all manifestations of the so-called immoral egoism must also stand; men injure, rob, or kill in order to preserve or defend themselves, to prevent

personal injury, they lie where cunning and dissimulation are the right means of self-preservation. *Intentional injury*, when our existence or safety (preservation of our comfort) is concerned, is conceded to be moral; the State itself injures, according to this point of view, when it punishes. In unintentional injury, of course, there can be nothing immoral, that is ruled by chance. Is there, then, a kind of intentional injury where our existence or the preservation of our comfort is *not* concerned? Is there an injuring out of pure *malice*, for instance in cruelty? If one does not know how much an action hurts, it is no deed of malice; thus the child is not malicious towards the animal, not evil; he examines and destroys it like a toy. But *do* we ever know entirely how an action hurts another? As far as our nervous system extends we protect ourselves from pain; if it extended farther, to our fellow-men, namely, we should do no one an injury (except in such cases as we injure ourselves, where we cut ourselves for the sake of cure, tire and exert ourselves for the sake of health). We *conclude* by analogy that something hurts somebody, and through memory and the strength of imagination we may suffer from it ourselves. But still what a difference there is between toothache and the pain (pity) that the sight of toothache calls forth! Therefore, in injury out of so-called malice the *degree* of pain produced is always unknown to us; but inasmuch as there is *pleasure* in the action (the feeling of one's own power, one's own strong excitement), the action is committed, in order to preserve the comfort of the individual, and is regarded, therefore, from a similar point of view as defence and falsehood in necessity. No life without pleasure; the struggle for pleasure is the struggle for life. Whether the individual so fights this fight that men call him good, or so that they call him evil, is determined by the measure and the constitution of his *intellect*.

105.

RECOMPENSING JUSTICE.—Whoever has completely comprehended the doctrine of absolute irresponsibility can no longer include the so-called punishing and recompensing justice in the idea of justice, should this consist of giving to each man his due. For he who is punished does not deserve the punishment, he is only used as a means of henceforth warning away from certain actions; equally so, he who is rewarded does not merit this reward, he could not act otherwise than he did. Therefore the reward is meant only as an encouragement to him and others, to provide a motive for subsequent actions; words of praise are flung to the runners on the course, not to the one who has reached the goal. Neither punishment nor reward is anything that comes to one as *one's own*; they are given from motives of usefulness, without one having a right to claim them. Hence we must say, "The wise man gives no reward because the deed has been well done," just as we have said, "The wise man does not punish because evil has been committed, but in order that evil shall not be committed." If punishment and reward no longer existed, then the strongest motives which deter men from certain actions and impel them to certain other actions, would also no longer exist; the needs of mankind require their continuance; and inasmuch as punishment and reward, blame and praise, work most sensibly on vanity, the same need requires the continuance of vanity.

106.

AT THE WATERFALL.—In looking at a waterfall we imagine that there is freedom of will and fancy in the countless turnings, twistings, and breakings of the waves; but everything is compulsory, every movement can be mathematically calculated. So it is also with human actions; one would have to be able to calculate every single action beforehand if one were all-knowing; equally so all progress of knowledge, every error, all malice. The one who acts certainly labours under the illusion of voluntariness; if the world's wheel were to stand still for a moment and an all-knowing, calculating reason were there to make use of this pause, it could foretell the future of every creature to the remotest times, and mark out every track upon which that wheel would continue to roll. The delusion of the acting agent about himself, the supposition of a free will, belongs to this mechanism which still remains to be calculated.

107.

IRRESPONSIBILITY AND INNOCENCE.—The complete irresponsibility of man for his actions and his nature is the bitterest drop which he who understands must swallow if he was accustomed to see the patent of nobility of his humanity in responsibility and duty. All his valuations, distinctions, disinclinations, are thereby deprived of value and become false,—his deepest feeling for the sufferer and the hero was based on an error; he may no longer either

praise or blame, for it is absurd to praise and blame nature and necessity. In the same way as he loves a fine work of art, but does not praise it, because it can do nothing for itself; in the same way as he regards plants, so must he regard his own actions and those of mankind. He can admire strength, beauty, abundance, in themselves ; but must find no merit therein,—the chemical progress and the strife of the elements, the torments of the sick person who thirsts after recovery, are all equally as little merits as those struggles of the soul and states of distress in which we are torn hither and thither by different impulses until we finally decide for the strongest—as we say (but in reality it is the strongest motive which decides for us). All these motives, however, whatever fine names we may give them, have all grown out of the same root, in which we believe the evil poisons to be situated ; between good and evil actions there is no difference of species, but at most of degree. Good actions are sublimated evil ones ; evil actions are vulgarised and stupefied good ones. The single longing of the individual for self-gratification (together with the fear of losing it) satisfies itself in all circumstances: man may act as he can, that is as he must, be it in deeds of vanity, revenge, pleasure, usefulness, malice, cunning ; be it in deeds of sacrifice, of pity, of knowledge. The degrees of the power of judgment determine whither any one lets himself be drawn through this longing ; to every society, to every individual, a scale of possessions is continually present, according to which he determines his actions and judges those of others. But this standard changes constantly ; many actions are called evil and are only stupid, because the degree of intelligence which decided for them was very low. In a certain sense, even, all actions are still stupid ; for the highest degree of human intelligence which can now be attained will assuredly be yet surpassed, and then, in a retrospect, all our actions and judgments will appear as limited and hasty as the actions and judgments of primitive wild peoples now appear limited and hasty to us. To recognise all this may be deeply painful, but consolation comes after: such pains are the pangs of birth. The butterfly wants to break through its chrysalis : it rends and tears it, and is then blinded and confused by the unaccustomed light, the kingdom of liberty. In such people as are *capable* of such sadness—and how few are!—the first experiment made is to see whether *mankind can change itself* from a *moral* into a *wise* mankind. The sun of a new gospel throws its rays upon the highest point in the soul of each single individual, then the mists gather thicker than ever, and the brightest light and the dreariest shadow lie side by side. Everything is necessity so says the new knowledge, and this knowledge itself is necessity. Everything is innocence, and knowledge is the road to insight into this innocence. Are pleasure, egoism, vanity *necessary* for the production of the moral phenomena and their highest result, the sense for truth and justice in knowledge ; were error and the confusion of the imagination the only means through which mankind could raise itself gradually to this degree of self-enlightenment and self-liberation who would dare to undervalue these means? Who would dare to be sad if he perceived the goal to which those roads led ? Everything in the domain of morality has evolved, is changeable, unstable, everything is dissolved, it is true ; but *everything is also streaming towards one goal*. Even if the inherited habit of erroneous valuation, love and hatred, continue to reign in us, yet under the influence of growing knowledge it will become weaker; a new habit, that of comprehension, of not loving, not hating, of over- looking, is gradually implanting itself in us upon the same ground, and in thousands of years will perhaps be powerful enough to give humanity the strength to produce wise, innocent (consciously innocent) men, as it now produces unwise, guilt-conscious men,—*that is the necessary preliminary step, not its opposite*.

THIRD DIVISION - The Religious Life.

108.

THE DOUBLE FIGHT AGAINST EVIL.—When misfortune overtakes us we can either pass over it so lightly that its cause is removed, or so that the result which it has on our temperament is altered, through a changing, therefore, of the evil into a good, the utility of which is perhaps not Visible until later on. Religion and art (also metaphysical philosophy) work upon the changing of the temperament, partly through the changing of our judgment on events (for instance, with the help of the phrase " whom the Lord loveth He chasteneth "), partly through the awakening of a pleasure in pain, in emotion generally (whence the tragic art takes its starting-point). The more a man is inclined to twist and arrange meanings the less he will grasp the causes of evil and disperse them ; the momentary mitigation and influence of a narcotic, as for example in toothache, suffices him even in more serious sufferings. The more the

dominion of creeds and all arts dispense with narcotics, the more strictly men attend to the actual removing of the evil, which is certainly bad for writers of tragedy ; for the material for tragedy is growing scarcer because the domain of pitiless, inexorable fate is growing ever narrower, —but worse still for the priests, for they have hitherto lived on the narcotisation of human woes.

109.

SORROW is KNOWLEDGE.—How greatly we should like to exchange the false assertions of the priests, that there is a god who desires good from us, a guardian and witness of every action, every moment, every thought, who loves us and seeks our welfare in all misfortune,—how greatly we would like to exchange these ideas for truths which would be just as healing, pacifying and beneficial as those errors ! But there are no such truths ; at most philosophy can oppose to them metaphysical appearances (at bottom also untruths). The tragedy consists in the fact that we cannot *believe* those dogmas of religion and metaphysics, if we have strict methods of truth in heart and brain : on the other hand, mankind has, through development, become so delicate, irritable and suffering, that it has need of the highest means of healing and consolation ; whence also the danger arises that man would bleed to death from recognised truth, or, more correctly, from discovered error. Byron has expressed this in the immortal lines :—

Sorrow is knowledge : they who know the most
Must mourn the deepest o'er the fatal truth,
The Tree of Knowledge is not that of Life.

For such troubles there is no better help than to recall the stately levity of Horace, at least for the worst hours and eclipses of the soul, and to say with him :

. . . quid seternis minorem
consiliis animum fatigas ?
cur non sub alta vel platano vel hac
pinu jacentes.^[7]

But assuredly frivolity or melancholy of every degree is better than a romantic retrospection and desertion of the flag, an approach to Christianity in any form ; for according to the present condition of knowledge it is absolutely impossible to approach it without hopelessly soiling our *intellectual conscience* and giving ourselves away to ourselves and others. Those pains may be unpleasant enough, but we cannot become leaders and educators of mankind without pain ; and woe to him who would wish to attempt this and no longer have that clear conscience !

110.

THE TRUTH IN RELIGION.—In the period of rationalism justice was not done to the importance of religion, of that there is no doubt, but equally there is no doubt that in the reaction that followed this rationalism justice was far overstepped ; for religions were treated lovingly, even amorously, and, for instance, a deeper, even the very deepest, understanding of the world was ascribed to them ; which science has only to strip of its dogmatic garment in order to possess the " truth " in unmythical form. Religions should, therefore,—this was the opinion of all opposers of rationalism,—*sensu allegorico*, with all consideration for the understanding of the masses, give utterance to that ancient wisdom which is wisdom itself, inasmuch as all true science of later times has always led up to it instead of away from it, so that between the oldest wisdom of mankind and all later harmonies similarity of discernment and a progress of knowledge—in case one should wish to speak of such a thing rests not upon the nature but upon the way of communicating it. This whole conception of religion and science is thoroughly erroneous, and none would still dare to profess it if Schopenhauer's eloquence had not taken it under its protection ; this resonant eloquence which, however, only reached its hearers a generation later. As surely as from Schopenhauer's religious-moral interpretations of men and the world much may be gained for the understanding of the Christian and other religions, so surely also is he mistaken about the *value of religion for knowledge*. Therein he himself was only a too docile pupil of the scientific teachers of his time, who all worshipped romanticism and had forsworn the spirit of enlightenment ; had he been born in our present age he could not possibly have talked about the *sensus allegoricus*

of religion ; he would much rather have given honour to truth, as he used to do, with the words, "*no religion, direct or indirect, either as dogma or as allegory, has ever contained a truth.*" For each has been born of fear and necessity, through the byways of reason did it slip into existence ; once, perhaps, when imperilled by science, some philosophic doctrine has lied itself into its system in order that it may be found there later, but this is a theological trick of the time when a religion already doubts itself. These tricks of theology (which certainly were practised in the early days of Christianity, as the religion of a scholarly period steeped in philosophy) have led to that superstition of the *sensus allegoricus*, but yet more the habits of the philosophers (especially the half-natures, the poetical philosophers and the philosophising artists), to treat all the sensations which they discovered in *themselves* as the fundamental nature of man in general, and hence to allow their own religious feelings an important influence in the building up of their systems. As philosophers frequently philosophised under the custom of religious habits, or at least under the anciently inherited power of that " metaphysical need," they developed doctrinal opinions which really bore a great resemblance to the Jewish or Christian or Indian religious views,—a resemblance, namely, such as children usually bear to their mothers, only that in this case the fathers were not clear about that motherhood, as happens sometimes,—but in their innocence romanced about a family likeness between all religion and science. In reality, between religions and real science there exists neither relationship nor friendship, nor even enmity; they live on different planets. Every philosophy which shows a religious comet's tail shining in the darkness of its last prospects makes all the science it contains suspicious ; all this is presumably also religion, even though in the guise of science. Moreover, if all nations were to agree about certain religious matters, for instance the existence of a God (which, it may be remarked, is not the case with regard to this point), this would only be an argument *against* those affirmed matters, for instance the existence of a God ; the *consensus gentium* and *hominum* in general can only take place in case of a huge folly. On the other hand, there is no *consensus omnium sapientium*, with regard to any single thing; with that exception mentioned in Goethe's lines :

"Alle die Weisesten aller der Zeiten
Lacheln und winken und stimmen mit ein :
Thoricht, auf Bess'rung der Thoren zu harren !
Kinder der Klugheit, o habet die Narren
Eben zum Narren auch, wie sich's gehort ! "[8]

Spoken without verse and rhyme and applied to our case, the *consensus sapientium* consists in this : that the *consensus gentium* counts as a folly.

111.

THE ORIGIN OF THE RELIGIOUS CULT.—If we go back to the times in which the religious life flourished to the greatest extent, we find a fundamental conviction, which we now no longer share, and whereby the doors leading to a religious life are closed to us once for all,—it concerns Nature and intercourse with her. In those times people knew nothing of natural laws ; neither for earth nor for heaven is there a " must " ; a season, the sunshine, the rain may come or may not come. In short, every idea of natural causality is lacking. When one rows, it is not the rowing that moves the boat, but rowing is only a magical ceremony by which one compels a *dæmon* to move the boat. All maladies, even death itself, are the result of magical influences. Illness and death never happen naturally ; the whole conception of " natural sequence " is lacking,—it dawned first amongst the older Greeks, that is, in a very late phase of humanity, in the conception of *Moirá*, enthroned above the gods. When a man shoots with a bow, there is still always present an irrational hand and strength ; if the wells suddenly dry up, men think first of subterranean *dæmons* and their tricks ; it must be the arrow of a god beneath whose invisible blow a man suddenly sinks down. In India (says Lubbock) a carpenter is accustomed to offer sacrifice to his hammer, his hatchet, and the rest of his tools ; in the same way a Brahmin treats the pen with which he writes, a soldier the weapons he requires in the field of battle, a mason his trowel, a labourer his plough. In the imagination of religious people all nature is a summary of the actions of conscious and voluntary creatures, an enormous complex of *arbitrariness*. No conclusion may be drawn with regard to everything that is outside of us, that anything will *be* so and so, *must* be so and so ; the approximately sure,

reliable are *we*, man is the *rule*, nature is *irregularity*, this theory contains the fundamental conviction which obtains in rude, religiously productive primitive civilisations. We latter-day men feel just the contrary,—the richer man now feels himself inwardly, the more polyphonous is the music and the noise of his soul the more powerfully the symmetry of nature works upon him ; we all recognise with Goethe the great means in nature for the appeasing of the modern soul ; we listen to the pendulum swing of this greatest of clocks with a longing for rest, for home and tranquillity, as if we could absorb this symmetry into ourselves and could only thereby arrive at the enjoyment of ourselves. Formerly it was otherwise; if we consider the rude, early condition of nations, or contemplate present-day savages at close quarters, we find them most strongly influenced by *law* and by *tradition* : the individual is almost automatically bound to them, and moves with the uniformity of a pendulum. To him Nature—uncomprehended, terrible, mysterious Nature must appear as the *sphere of liberty*, of voluntariness, of the higher power, even as a superhuman degree of existence, as God. In those times and conditions, however, every individual felt that his existence, his happiness, and that of the family and the State, and the success of all undertakings, depended on those spontaneities of nature; certain natural events must appear at the right time, others be absent at the right time. How can one have any influence on these terrible unknown things, how can one bind the sphere of liberty ? Thus he asks himself, thus he inquires anxiously ; is there, then, no means of making those powers as -regular through tradition and law as you are yourself? The aim of those who believe in magic and miracles is to *impose a law on nature*,—and, briefly, the religious cult is a result of this aim. The problem which those people have set themselves is closely related to this : how can the *weaker* race dictate laws to the *stronger*, rule it, and guide its actions (in relation to the weaker)? One would first remember the most harmless sort of compulsion, that compulsion which one exercises when one has gained any one's affection. By imploring and praying, by submission, by the obligation of regular taxes and gifts, by flattering glorifications, it is also possible to exercise an influence upon the powers of nature, inasmuch as one gains the affections ; love binds and becomes bound. Then one can make compacts by which one is mutually bound to a certain behaviour, where one gives pledges and exchanges vows. But far more important is a species of more forcible compulsion, by magic and witchcraft. As with the sorcerer's help man is able to injure a more powerful enemy and keep him in fear, as the love-charm works at a distance, so the weaker man believes he can influence the mightier spirits of nature. The principal thing in all witchcraft is that we must get into our possession something that belongs to some one, hair, nails, food from their table, even their portrait, their name. With such apparatus we can then practise sorcery ; for the fundamental rule is, to everything spiritual there belongs something corporeal ; with the help of this we are able to bind the spirit, to injure it, and destroy it ; the corporeal furnishes the handles with which we can grasp the spiritual. As man controls man, so he controls some natural spirit or other ; for this has also its corporeal part by which it may be grasped. The tree and, compared with it, the seed from which it sprang,—this enigmatical contrast seems to prove that the same spirit embodied itself in both forms, now small, now large. A stone that begins to roll suddenly is the body in which a spirit operates ; if there is an enormous rock lying on a lonely heath it seems impossible to conceive human strength sufficient to have brought it there, consequently the stone must have moved there by itself, that is, it must be possessed by a spirit. Everything that has a body is susceptible to witchcraft, therefore also the natural spirits. If a god is bound to his image we can use the most direct compulsion against him (through refusal of sacrificial food, scourging, binding in fetters, and so on). In order to obtain by force the missing favour of their god the lower classes in China wind cords round the image of the one who has left them in the lurch, pull it down and drag it through the streets in the dust and the dirt: "You dog of a spirit," they say, " we gave you a magnificent temple to live in, we gilded you prettily, we fed you well, we offered you sacrifice, and yet you are so ungrateful." Similar forcible measures against pictures of the Saints and Virgin when they refused to do their duty in pestilence or drought, have been witnessed even during the present century in Catholic countries. Through all these magic relations to nature, countless ceremonies have been called into life ; and at last, when the confusion has grown too great, an endeavour has been made to order and systematise them, in order that the favourable course of the whole progress of nature, i.e. of the great succession of the seasons, may seem to be guaranteed by a corresponding course of a system of procedure. The essence of the religious cult is to determine and confine nature to human advantage, *to impress it with a legality, therefore, which it did not*

originally possess; while at the present time we wish to recognise the legality of nature in order to adapt ourselves to it. In short, then, the religious cult is based upon the representations of sorcery between man and man,—and the sorcerer is older than the priest. But it is likewise based upon other and nobler representations ; it premises the sympathetic relation of man to man, the presence of goodwill, gratitude, the hearing of pleaders, of treaties between enemies, the granting of pledges, and the claim to the protection of property. In very low stages of civilisation man does not stand in the relation of a helpless slave to nature, he is *not* necessarily its involuntary bondsman. In the *Greek* grade of religion, particularly in relation to the Olympian gods, there may even be imagined a common life between two castes, a nobler and more powerful one, and one less noble ; but in their origin both belong to each other somehow, and are of one kind ; they need not be ashamed of each other. That is the nobility of the Greek religion.

112.

AT THE SIGHT OF CERTAIN ANTIQUE SACRIFICIAL IMPLEMENTS.—The fact of how many feelings are lost to us may be seen, for instance, in the mingling of the *droll*, even of the *obscene*, with the religious feeling. The sensation of the possibility of this mixture vanishes, we only comprehend historically that it existed in the feasts of Demeter and Dionysus, in the Christian Easter-plays and Mysteries. But we also know that which is noble in alliance with burlesque and such like, the touching mingled with the laughable, which perhaps a later age will not be able to understand.

113.

CHRISTIANITY AS ANTIQUITY.—When on a Sunday morning we hear the old bells ring out, we ask ourselves, " Is it possible ! This is done on account of a Jew crucified two thousand years ago who said he was the Son of God. The proof of such an assertion is wanting." Certainly in our times the Christian religion is an antiquity that dates from very early ages, and the fact that its assertions are still believed, when otherwise all claims are subjected to such strict examination, is perhaps the oldest part of this heritage. A God who creates a son from a mortal woman ; a sage who requires that man should no longer ; work, no longer judge, but should pay attention to ; the signs of the approaching end of the world ; a justice that accepts an innocent being as a substitute in sacrifice ; one who commands his disciples to drink his blood ; prayers for miraculous intervention ; sins committed against a God and atoned for through a God ; the fear of a future to which death is the portal ; the form of the cross in an age which no longer knows the signification and the shame of the cross, ^[9] how terrible all this appears to us, as if risen from the grave of the ancient past ! Is it credible that such things are still believed ?

114.

WHAT IS UN-GREEK IN CHRISTIANITY.—The Greeks did not regard the Homeric gods as raised above them like masters, nor themselves as being under them like servants, as the Jews did. They only saw, as in a mirror, the most perfect examples of their own caste ; an ideal, therefore, and not an opposite of their own nature. There is a feeling of relationship, a mutual interest arises, a kind of symmachy. Man thinks highly of himself when he gives himself such gods, and places himself in a relation like that of the lower nobility towards the higher ; while the Italian nations hold a genuine peasant-faith, with perpetual fear of evil and mischievous powers and tormenting spirits. Wherever the Olympian gods retreated into the background, Greek life was more sombre and more anxious. Christianity, on the contrary, oppressed man and crushed him utterly, sinking him as if in deep mire ; then into the feeling of absolute depravity it suddenly threw the light of divine mercy, so that the surprised man, dazzled by forgiveness, gave a cry of joy and for a moment believed that he bore all heaven within himself. All psychological feelings of Christianity work upon this unhealthy excess of sentiment, and upon the deep corruption of head and heart it necessitates ; it desires to destroy, break, stupefy, confuse,—only one thing it does not desire, namely *moderation*, and therefore it is in the deepest sense barbaric, Asiatic, ignoble and un-Greek.

115.

TO BE RELIGIOUS WITH ADVANTAGE.—There are sober and industrious people on whom religion is embroidered like a hem of higher humanity ; these do well to remain religious, it beautifies them. All people who do

not understand some kind of trade in weapons—tongue and pen included as weapons—become servile ; for such the Christian religion is very useful, for then servility assumes the appearance of Christian virtues and is surprisingly beautified. People to whom their daily life appears too empty and monotonous easily grow religious; this is comprehensible and excusable, only they have no right to demand religious sentiments from those whose daily life is not empty and monotonous. ^[10]

116.

THE COMMONPLACE CHRISTIAN.—If Christianity were right, with its theories of an avenging God, of general sinfulness, of redemption, and the danger of eternal damnation, it would be a sign of weak intellect and lack of character not to become a priest, apostle or hermit, and to work only with fear and trembling for one's own salvation ; it would be senseless thus to neglect eternal benefits for temporary comfort. Taking it for granted that there is *belief*, the commonplace Christian is a miserable figure, a man that really cannot add two and two together, and who, moreover, just because of his mental incapacity for responsibility, did not deserve to be so severely punished as Christianity has decreed.

117.

OF THE WISDOM OF CHRISTIANITY.—It is a clever stroke on the part of Christianity to teach the utter unworthiness, sinfulness, and despicableness of mankind so loudly that the disdain of their fellow-men is no longer possible. " He may sin as much as he likes, he is not essentially different from me,—it is I who am unworthy and despicable in every way," says the Christian to himself. But even this feeling has lost its sharpest sting, because the Christian no longer believes in his individual despicableness ; he is bad as men are generally, and comforts himself a little with the axiom, " We are all of one kind."

118.

CHANGE OF FRONT.—As soon as a religion triumphs it has for its enemies all those who would have been its first disciples.

119.

THE FATE OF CHRISTIANITY.—Christianity arose for the purpose of lightening the heart; but now it must first make the heart heavy in order afterwards to lighten it. Consequently it will perish.

120.

THE PROOF OF PLEASURE.—The agreeable opinion is accepted as true,—this is the proof of the pleasure (or, as the Church says, the proof of the strength), of which all religions are so proud when they ought to be ashamed of it. If Faith did not make blessed it would not be believed in ; of how little value must it be, then !

121.

A DANGEROUS GAME.—Whoever now allows scope to his religious feelings must also let them increase, he cannot do otherwise. His nature then gradually changes ; it favours whatever is connected with and near to the religious element, the whole extent of judgment and feeling becomes clouded, overcast with religious shadows. Sensation cannot stand still ; one must therefore take care.

122.

THE BLIND DISCIPLES.—So long as one knows well the strength and weakness of one's doctrine, one's art, one's religion, its power is still small. The disciple and apostle who has no eyes for the weaknesses of the doctrine, the religion, and so forth, dazzled by the aspect of the master and by his reverence for him, has on that account usually more power than the master himself. Without blind disciples the influence of a man and his work has never yet become great. To help a doctrine to victory often means only so to mix it with stupidity that the weight of the latter carries off also the victory for the former.

123.

CHURCH DISESTABLISHMENT.—There is not enough religion in the world even to destroy religions.

124.

THE SINLESSNESS OF MAN.—If it is understood how " sin came into the world," namely through errors of reason by which men held each other, even the single individual held himself, to be much blacker and much worse than was actually the case, the whole sensation will be much lightened, and man and the world will appear in a blaze of innocence which it will do one good to contemplate. In the midst of nature man is always the child *per se*. This child sometimes has a heavy and terrifying dream, but when it opens its eyes it always finds itself back again in Paradise.

125.

THE IRRELIGIOUSNESS OF ARTISTS.—Homer is so much at home amongst his gods, and is so familiar with them as a poet, that he must have been deeply irreligious ; that which the popular faith gave him—a meagre, rude, partly terrible superstition he treated as freely as the sculptor does his clay, with the same unconcern, therefore, which Aeschylus and Aristophanes possessed, and by which in later times the great artists of the Renaissance distinguished themselves, as also did Shakespeare and Goethe.

126.

THE ART AND POWER OF FALSE INTERPRETATIONS.—All the visions, terrors, torpors, and ecstasies of saints are well-known forms of disease, which are only, by reason of deep-rooted religious and psychological errors, differently *explained* by him, namely not as diseases. Thus, perhaps, the *Daimonion* of Socrates was only an affection of the ear, which he, in accordance with his ruling moral mode of thought, *expounded* differently from what would be the case now. It is the same thing with the madness and ravings of the prophets and soothsayers ; it is always the degree of knowledge, fantasy, effort, morality in the head and heart of the *interpreters* which has *made* so much of it. For the greatest achievements of the people who are called geniuses and saints it is necessary that they should secure interpreters by force, who *misunderstand* them for the good of mankind.

127.

THE VENERATION OF INSANITY.—Because it was remarked that excitement frequently made the mind clearer and produced happy inspirations it was believed that the happiest inspirations and suggestions were called forth by the greatest excitement; and so the insane were revered as wise and oracular. This is based on a false conclusion.

128.

THE PROMISES OF SCIENCE.—The aim of modern science is : as little pain as possible, as long a life as possible,—a kind of eternal blessedness, therefore ; but certainly a very modest one as compared with the promises of religions.

129.

FORBIDDEN GENEROSITY.—There is not sufficient love and goodness in the world to permit us to give some of it away to imaginary beings.

130.

THE CONTINUANCE OF THE RELIGIOUS CULT IN THE FEELINGS.—The Roman Catholic Church, and before that all antique cults, dominated the entire range of means by which man was put into unaccustomed moods and rendered incapable of the cold calculation of judgment or the clear thinking of reason. A church quivering with deep tones ; the dull, regular, arresting appeals of a priestly throng, unconsciously communicates its tension to the congregation and makes it listen almost fearfully, as if a miracle were in preparation ; the influence of the architecture, which, as the dwelling of a Godhead, extends into the uncertain and makes its apparition to be feared in all its sombre spaces,—who would wish to bring such things back to mankind if the necessary suppositions are no longer believed ? But the *results* of all this are not lost, nevertheless ; the inner world of noble, emotional, deeply contrite dispositions, full of presentiments, blessed with hope, is inborn in mankind mainly through this cult; what exists of it now in the soul was then cultivated on a large scale as it germinated, grew up and blossomed.

131.

THE PAINFUL CONSEQUENCES OF RELIGION.—However much we may think we have weaned ourselves from religion, it has nevertheless not been done so thoroughly as to deprive us of pleasure in encountering religious sensations and moods in music, for instance ; and if a philosophy shows us the justification of metaphysical hopes and the deep peace of soul to be thence acquired, and speaks, for instance, of the " whole, certain gospel in the gaze of Raphael's Madonnas," we receive such statements and expositions particularly warmly ; here the philosopher finds it easier to prove; that which he desires to give corresponds to a heart that desires to receive. Hence it may be observed how the less thoughtful free spirits really only take offence at the dogmas, but are well acquainted with the charm of religious sensations; they are sorry to lose hold of the latter for the sake of the former. Scientific philosophy must be very careful not to smuggle in errors on the ground of that need,—a need which has grown up and is consequently temporary, even logicians speak of "presentiments " of truth in ethics and in art (for instance, of the suspicion that "the nature of things is one "), which should be forbidden to them Between the carefully established truths and such "presaged" things there remains the unbridgable chasm that those are due to intellect and these to requirement. Hunger does not prove that food *exists* to satisfy it, but that it desires food. To " presage " does not mean the acknowledgment of the existence of a thing in any one degree, but its possibility, in so far as it is desired or feared ; " presage " does not advance one step into the land of certainty. We believe involuntarily that the portions of a philosophy which are tinged with religion are better proved than others ; but actually it is the contrary, but we have the inward desire that it *may* be so, that that which makes blessed, therefore, may be also the true. This desire misleads us to accept bad reasons for good ones.

132.

OF THE CHRISTIAN NEED OF REDEMPTION.—With careful reflection it must be possible to obtain an explanation free from mythology of that process in the soul of a Christian which is called the need of redemption, consequently a purely psychological explanation. Up to the present, the psychological explanations of religious conditions and processes have certainly been held in some disrepute, inasmuch as a theology which called itself free carried on its unprofitable practice in this domain ; for here from the beginning (as the mind of its founder, Schleiermacher, gives us reason to suppose) the preservation of the Christian religion and the continuance of Christian theology was kept in view; a theology which was to find a new anchorage in the psychological analyses of religious " facts," and above all a new occupation. Unconcerned about such predecessors we hazard the following interpretation of the phenomenon in question. Man is conscious of certain actions which stand far down in the customary rank of actions ; he even discovers in himself a tendency towards similar actions, a tendency which appears to him almost as unchangeable as his whole nature. How willingly would he try himself in that other species of actions which in the general valuation are recognised as the loftiest and highest, how gladly would he feel himself to be full of the good consciousness which should follow an unselfish mode of thought ! But unfortunately he stops short at this wish, and the discontent at not being able to satisfy it is added to all the other discontents which his lot in life or the consequences of those above-mentioned evil actions have aroused in him ; so that a deep ill-humour is the result, with the search for a physician who could remove this and all its causes. This condition would not be felt so bitterly if man would only compare himself frankly with other men,—then he would have no reason for being dissatisfied with himself to a particular extent, he would only bear his share of the common burden of human dissatisfaction and imperfection. But he compares himself with a being who is said to be capable only of those actions which are called unegoistic, and to live in the perpetual consciousness of an unselfish mode of thought, *i.e.* with God; it is because he gazes into this clear mirror that his image appears to him so dark, so unusually warped. Then he is alarmed by the thought of that same creature, in so far as it floats before his imagination as a retributive justice; in all possible small and great events he thinks he recognises its anger and menaces, that he even feels its scourge-strokes as judge and executioner. Who will help him in this danger, which, by the prospect of an immeasurable duration of punishment, exceeds in horror all the other terrors of the idea ?

133.

Before we examine the further consequences of this mental state, let us acknowledge that it is not through his "guilt" and "sin" that man has got into this condition, but through a series of errors of reason; that it was the fault of the mirror if his image appeared so dark and hateful to him, and that that mirror was *his* work, the very imperfect work of human imagination and power of judgment. In the first place, a nature that is only capable of purely unegoistic actions is more fabulous than the phoenix; it cannot even be clearly imagined, just because, when closely examined, the whole idea "unegoistic action" vanishes into air. No man *ever* did a thing which was done only for others and without any personal motive; how should he be *able* to do anything which had no relation to himself, and therefore without inward obligation (which must always have its foundation in a personal need)? How could the *ego* act without *ego*? A God who, on the contrary, is *all* love, as such a one is often represented, would not be capable of a single unegoistic action, whereby one is reminded of a saying of Lichtenberg's which is certainly taken from a lower sphere: "We cannot possibly *feel* for others, as the saying is; we feel only for ourselves. This sounds hard, but it is not so really if it be rightly understood. We do not love father or mother or wife or child, but the pleasant sensations they cause us;" or, as Rochefoucauld says: "*Si on croit aimer sa maîtresse pour l'amour d'elle, on est bien trompé.*" To know the reason why actions of love are valued more than others, not on account of their nature, namely, but of their *usefulness*, we should compare the examinations already mentioned, *On the Origin of Moral Sentiments*. But should a man desire to be entirely like that God of Love, to do and wish everything for others and nothing for himself, the latter is impossible for the reason that he must do *very much* for himself to be able to do something for the love of others. Then it is taken for granted that the other is sufficiently egoistic to accept that sacrifice again and again, that living for him,—so that the people of love and sacrifice have an interest in the continuance of those who are loveless and incapable of sacrifice, and, in order to exist, the highest morality would be obliged positively to *compel* the existence of un-morality (whereby it would certainly annihilate itself). Further: the conception of a God disturbs and humbles so long as it is believed in; but as to how it arose there can no longer be any doubt in the present state of the science of comparative ethnology; and with a comprehension of this origin all belief falls to the ground. The Christian who compares his nature with God's is like Don Quixote, who under-valued his own bravery because his head was full of the marvellous deeds of the heroes of the chivalric romances,—the standard of measurement in both cases belongs to the domain of fable. But if the idea of God is removed, so is also the feeling of "sin" as a trespass against divine laws, as a stain in a creature vowed to God. Then, perhaps, there still remains that dejection which; is intergrown and connected with the fear of the punishment of worldly justice or of the scorn of men; the dejection of the pricks of conscience, the sharpest thorn in the consciousness of sin, is always removed if we recognise that though by our own deed we have sinned against human descent, human laws and ordinances, still that we have not imperilled the "eternal salvation of the Soul" and its relation to the Godhead. And if man succeeds in gaining philosophic conviction of the absolute necessity of all actions and their entire irresponsibility, and absorbing this into his flesh and blood, even those remains of the pricks of conscience vanish.

134.

Now if the Christian, as we have said, has fallen into the way of self-contempt in consequence of certain errors through a false, unscientific interpretation of his actions and sensations, he must notice with great surprise how that state of contempt, the pricks of conscience and displeasure generally, does not endure, how sometimes there come hours when all this is wafted away from his soul and he feels himself once more free and courageous. In truth, the pleasure in himself, the comfort of his own strength, together with the necessary weakening through time of every deep emotion, has usually been victorious; man loves himself once again, he feels it,—but precisely this new love, this self-esteem, seems to him incredible, he can only see in it the wholly undeserved descent of a stream of mercy from on high. If he formerly believed that in every event he could recognise warnings, menaces, punishments, and every kind of manifestation of divine anger, he now finds divine goodness in all his experiences,—this event appears to him to be full of love, that one a helpful hint, a third, and, indeed, his whole happy mood, a proof that God is merciful. As formerly, in his state of pain, he interpreted his actions falsely, so now he misinterprets his experiences; his mood of comfort he believes to be the working of a power operating outside of himself, the love with which he really loves himself seems to him to be divine love; that which he calls mercy, and the prologue to

redemption, is actually self-forgiveness, self-redemption.

135.

Therefore: A certain false psychology, a certain kind of imaginative interpretation of motives and experiences, is the necessary preliminary for one to become a Christian and to feel the need of redemption. When this error of reason and imagination is recognised, one ceases to be a Christian.

136.

OF CHRISTIAN ASCETICISM AND HOLINESS.—As greatly as isolated thinkers have endeavoured to depict as a miracle the rare manifestations of morality, which are generally called asceticism and holiness, miracles which it would be almost an outrage and sacrilege to explain by the light of common sense, as strong also is the inclination towards this outrage. A mighty impulse of nature has at all times led to a protest against those manifestations ; science, in so far as it is an imitation of nature, at least allows itself to rise against the supposed inexplicableness and unapproachableness of these objections. So far it has certainly not succeeded : those appearances are still unexplained, to the great joy of the above-mentioned worshippers of the morally marvellous. For, speaking generally, the unexplained *must* be absolutely inexplicable, the inexplicable absolutely unnatural, supernatural, wonderful,—thus runs the demand in the souls of all religious and metaphysical people (also of artists, if they should happen to be thinkers at the same time) ; whilst the scientist sees in this demand the " evil principle " in itself. The general, first probability upon which one lights in the contemplation of holiness and asceticism is this, that their nature is a *complicated* one, for almost everywhere, within the physical world as well as in the moral, the apparently marvellous has been successfully traced back to the complicated, the many-conditioned. Let us venture, therefore, to isolate separate impulses from the soul of saints and ascetics, and finally to imagine them as inter-grown.

137.

There is a *defiance of self*, to the sublimest manifestation of which belong many forms of asceticism. Certain individuals have such great need of exercising their power and love of ruling that, in default of other objects, or because they have never succeeded otherwise, they finally excogitate the idea of tyrannising over certain parts of their own nature, portions or degrees of themselves. Thus many a thinker confesses to views which evidently do not serve either to increase or improve his reputation ; many a one deliberately calls down the scorn of others when by keeping silence he could easily have remained respected ; others contradict former opinions and do not hesitate to be called inconsistent—on the contrary, they strive after this, and behave like reckless riders who like a horse best when it has grown wild, unmanageable, and covered with sweat. Thus man climbs dangerous paths up the highest mountains in order that he may laugh to scorn his own fear and his trembling knees ; thus the philosopher owns to views on asceticism, humility, holiness, in the brightness of which his own picture shows to the worst possible disadvantage. This crushing of one's self, this scorn of one's own nature, this *spernere se sperni*, of which religion has made so much, is really a very high degree of vanity. The whole moral of the Sermon on the Mount belongs here ; man takes a genuine delight in doing violence to himself by these exaggerated claims, and afterwards idolising these tyrannical demands of his soul. In every ascetic morality man worships one part of himself as a God, and is obliged, therefore, to diabolise the other parts.

138.

Man is not equally moral at all hours, this is well known. If his morality is judged to be the capability for great self-sacrificing resolutions and self-denial (which, when continuous and grown habitual, are called holiness), he is most moral in the passions \ the higher emotion provides him with entirely new motives, of which he, sober and cold as usual, perhaps does not even believe himself capable. How does this happen ? Probably because of the proximity of everything great and highly exciting ; if man is once wrought up to a state of extraordinary suspense, he is as capable of carrying out a terrible revenge as of a terrible crushing of his need for revenge. Under the influence of powerful emotion, he desires in any case the great, the powerful, the immense ; and if he happens to notice that the sacrifice of himself satisfies him as well as, or better than, the sacrifice of others, he chooses that. Actually, therefore, he only cares about discharging his emotion ; in order to ease his tension he seizes the enemy's spears and

buries them in his breast. That there was something great in self-denial and not in revenge had to be taught to mankind by long habit ; a Godhead that sacrificed itself was the strongest, most effective symbol of this kind of greatness. As the conquest of the most difficult enemy, the sudden mastering of an affection thus this denial *appears* ; and so far it passes for the summit of morality. In reality it is a question of the confusion of one idea with another, while the temperament maintains an equal height, an equal level. Temperate men who are resting from their passions no longer understand the morality of those moments ; but the general admiration of those who had the same experiences upholds them ; pride is their consolation when affection and the understanding of their deed vanish. Therefore, at bottom even those actions of self-denial are not moral, inasmuch as they are not done strictly with regard to others ; rather the other only provides the highly-strung temperament with an opportunity of relieving itself through that denial.

139.

In many respects the ascetic seeks to make life easy for himself, usually by complete subordination to a strange will or a comprehensive law and ritual ; something like the way a Brahmin leaves nothing whatever to his own decision but refers every moment to holy precepts. This submission is a powerful means of attaining self-mastery: man is occupied and is therefore not bored, and yet has no incitement to self-will or passion ; after a completed deed there is no feeling of responsibility and with it no tortures of remorse. We have renounced our own will once and for ever, and this is easier than only renouncing it occasionally ; as it is also easier to give up a desire entirely than to keep it within bounds. When we remember the present relation of man to the State, we find that, even here, unconditional obedience is more convenient than conditional. The saint, therefore, makes his life easier by absolute renunciation of his personality, and we are mistaken if in that phenomenon we admire the loftiest heroism of morality. In any case it is more difficult to carry one's personality through without vacillation and unclarity than to liberate one's self from it in the above-mentioned manner ; moreover, it requires far more spirit and consideration.

140.

After having found in many of the less easily explicable actions manifestations of that pleasure in *emotion per se*, I should like to recognise also in self-contempt, which is one of the signs of holiness, and likewise in the deeds of self-torture (through hunger and scourging, mutilation of limbs, feigning of madness) a means by which those natures fight against the general weariness of their life-will (their nerves) ; they employ the most painful irritants and cruelties in order to emerge for a time, at all events, from that dulness and boredom into which they so frequently sink through their great mental indolence and that submission to a strange will already described.

141.

The commonest means which the ascetic and saint employs to render life still endurable and amusing consists in occasional warfare with alternate victory and defeat. For this he requires an opponent, and finds it in the so-called "inward enemy." He principally makes use of his inclination to vanity, love of honour and rule, and of his sensual desires, that he may be permitted to regard his life as a perpetual battle and himself as a battlefield upon which good and evil spirits strive with alternating success. It is well known that sensual imagination is moderated, indeed almost dispelled, by regular sexual intercourse, whereas, on the contrary, it is rendered unfettered and wild by abstinence or irregularity. The imagination of many Christian saints was filthy to an extraordinary degree ; by virtue of those theories that these desires were actual demons raging within them they did not feel themselves to be too responsible ; to this feeling we owe the very instructive frankness of their self-confessions. It was to their interest that this strife should always be maintained in one degree or another, because, as we have already said, their empty life was thereby entertained. But in order that the strife might seem sufficiently important and arouse the enduring sympathy and admiration of non-saints, it was necessary that sensuality should be ever more reviled and branded, the danger of eternal damnation was so tightly bound up with these things that it is highly probable that for whole centuries Christians generated children with a bad conscience, wherewith humanity has certainly suffered a great injury. And yet here truth is all topsy-turvy, which is particularly unsuitable for truth. Certainly Christianity had said that every man is conceived and born in sin, and in the insupportable superlative-Christianity of Calderon this thought again

appears, tied up and twisted, as the most distorted paradox there is, in the well-known lines—

"The greatest sin of man

Is that he was ever born."

In all pessimistic religions the act of generation was looked upon as evil in itself. This is by no means the verdict of all mankind, not even of all pessimists. For instance, Empedocles saw in all erotic things nothing shameful, diabolical, or, sinful ; but rather, in the great plain of disaster he saw only one hopeful and redeeming figure, that of Aphrodite ; she appeared to him as a guarantee that the strife should not endure eternally, but that the sceptre should one day be given over to a gentler *demon*. The actual Christian pessimists had, as has been said, an interest in the dominance of a diverse opinion ; for the solitude and spiritual wilderness of their lives they required an ever living enemy, and a generally recognised enemy, through whose fighting and overcoming they could constantly represent themselves to the non-saints as incomprehensible, half - supernatural beings. But when at last this enemy took to flight for ever in consequence of their mode of life and their impaired health, they immediately understood how to populate their interior with new daemons. The rising and falling of the scales of pride and humility sustained their brooding minds as well as the alternations of desire and peace of soul. At that time psychology served not only to cast suspicion upon everything human, but to oppress, to scourge, to crucify ; people *wished* to find themselves as bad and wicked as possible, they *sought* anxiety for the salvation of their souls, despair of their own strength. Everything natural with which man has connected the idea of evil and sin (as, for instance, he is still accustomed to do with regard to the erotic) troubles and clouds the imagination, causes a frightened glance, makes man quarrel with himself and uncertain and distrustful of himself. Even his dreams have the flavour of a restless conscience. And yet in the reality of things this suffering from what is natural is entirely without foundation, it is only the consequence of opinions *about* things. It is easily seen how men grow worse by considering the inevitably-natural as bad, and afterwards always feeling themselves made thus. It is the trump- card of religion and metaphysics, which wish to have man evil and sinful by nature, to cast suspicion on nature and thus really to *make* him bad, for he learns to feel himself evil since he cannot divest himself of the clothing of nature. After living for long a natural life, he gradually comes to feel himself weighed down by such a burden of sin that supernatural powers are necessary to lift this burden, and therewith arises the so-called need of redemption, which corresponds to no real but only to an imaginary sinfulness. If we survey the separate moral demands of the earliest times of Christianity it will everywhere be found that requirements are exaggerated in order that man *cannot* satisfy them ; the intention is not that he should become more moral, but that he should feel himself as *sinful as possible*. If man had not found this feeling *agreeable*—why would he have thought out such an idea and stuck to it so long ? As in the antique world an immeasurable power of intellect and inventiveness was expended in multiplying the pleasure of life by festive cults, so also in the age of Christianity an immeasurable amount of intellect has been sacrificed to another endeavour,—man must by all means be made to feel himself sinful and thereby be excited, *enlivened, en-souled*. To excite, enliven, en-soul at all costs—is not that the watchword of a relaxed, over-ripe, over-cultured age? The range of all natural sensations had been gone over a hundred times, the soul had grown weary, whereupon the saint and the ascetic invented a new species of stimulants for life. They presented themselves before the public eye, not exactly as an example for the many, but as a terrible and yet ravishing spectacle, which took place on that border-land between world and over-world, wherein at that time all people believed they saw now rays of heavenly light and now unholy tongues of flame glowing in the depths. The saint's eye, fixed upon the terrible meaning of this short earthly life, upon the nearness of the last decision concerning endless new spans of existence, this burning eye in a half-wasted body made men of the old world tremble to their very depths; to gaze, to turn shudderingly away, to feel anew the attraction of the spectacle and to give way to it, to drink deep of it till the soul quivered with fire and ague,—that was the last *pleasure that antiquity invented* after it had grown blunted even at the sight of beast-baitings and human combats.

142.

Now to sum up. That condition of soul in which the saint or embryo saint rejoiced, was composed of elements which we all know well, only that under the influence of other than religious conceptions they exhibit themselves in other

colours and are then accustomed to encounter man's blame as fully as, with that decoration of religion and the ultimate meaning of existence, they may reckon on "receiving admiration and even worship,—might reckon, at least, in former ages. Sometimes the saint practises that defiance of himself which is a near relative of domination at any cost and gives a feeling of power even to the most lonely ; sometimes his swollen sensibility leaps from the desire to let his passions have full play into the desire to overthrow them like wild horses under the mighty pressure of a proud spirit; sometimes he desires a complete cessation of all disturbing, tormenting, irritating sensations, a waking sleep, a lasting rest in the lap of a dull, animal, and plant-like indolence; sometimes he seeks strife and arouses it within himself, because boredom has shown him its yawning countenance. He scourges his self-adoration with self-contempt and cruelty, he rejoices in the wild tumult of his desires and the sharp pain of sin, even in the idea of being lost; he understands how to lay a trap for his emotions, for instance even for his keen love of ruling, so that he sinks into the most utter abasement and his tormented soul is thrown out of joint by this contrast ; and finally, if he longs for visions, conversations with the dead or with divine beings, it is at bottom a rare kind of delight that he covets, perhaps that delight in which all others are united. Novalis, an authority on questions of holiness through experience and instinct, tells the whole secret with naive joy: " It is strange enough that the association of lust, religion, and cruelty did not long ago draw men's attention to their close relationship and common tendency."

143.

That which gives the saint his historical value is not the thing he *is*, but the thing he *represents* in the eyes of the unsaintly. It was through the fact that errors were made about him, that the state of his soul was *falsely interpreted*, that men separated themselves from him as much as possible, as from something incomparable and strangely superhuman, that he acquired the extraordinary power which he exercised over the imagination of whole nations and whole ages. He did not know himself; he himself interpreted the writing of his moods, inclinations, and actions according to an art of interpretation which was as exaggerated and artificial as the spiritual interpretation of the Bible. The distorted and diseased in his nature, with its combination of intellectual poverty, evil knowledge, ruined health, and over-excited nerves, remained hidden from his own sight as well as from that of his spectators. He was not a particularly good man, and still less was he a particularly wise one ; but he *represented* something that exceeded the human standard in goodness and wisdom. The belief in him supported the belief in the divine and miraculous, in a religious meaning of all existence, in an impending day of judgment. In the evening glory of the world's sunset, which glowed over the Christian nations, the shadowy form of the saint grew to vast dimensions, it grew to such a height that even in our own age, which no longer believes in God, there are still thinkers who believe in the saint.

144.

It need not be said that to this description of the saint which has been made from an average of the whole species, there may be opposed many a description which could give a more agreeable impression. Certain exceptions stand out from among this species, it may be through great mildness and philanthropy, it may be through the magic of unusual energy ; others are attractive in the highest degree, because certain wild ravings have poured streams of light on their whole being, as is the case, for instance, with the famous founder of Christianity, who thought he was the Son of God and therefore felt himself sinless—so that through this idea—which we must not judge too hardly because the whole antique world swarms with sons of God—he reached that same goal, that feeling of complete sinlessness, complete irresponsibility, which every one can now acquire by means of science. Neither have I mentioned the Indian saints, who stand midway between the Christian saint and the Greek philosopher, and in so far represent no pure type. Knowledge, science—such as existed then—the uplifting above other men through logical discipline and training of thought, were as much fostered by the Buddhists as distinguishing signs of holiness as the same qualities in the Christian world are repressed and branded as signs of unholiness.

FOURTH DIVISION - Concerning the Soul of Artists and Authors.

145.

THE PERFECT SHOULD NOT HAVE GROWN.—With regard to everything that is perfect we are accustomed to omit the question as to how perfection has been acquired, and we only rejoice in the present as if it had sprung out of the ground by magic. Probably with regard to this patten we are still under the effects of an ancient mythological feeling. It still *almost* seems to us (in such a Greek temple, for instance, as that of Paestum) as if one morning a god in sport had built his dwelling of such enormous masses, at other times it seems as if his spirit had suddenly entered into a stone and now desired to speak through it. The artist knows that his work is only fully effective if it arouses the belief in an improvisation, in a marvellous instantaneousness of origin; and thus he assists this illusion and introduces into art those elements of inspired unrest, of blindly groping disorder, of listening dreaming at the beginning of creation, as a means of deception, in order so to influence the soul of the spectator or hearer that it may believe in the sudden appearance of the perfect It is the business of the science of art to con- tradict this illusion most decidedly, and to show up the mistakes and pampering of the intellect, by means of which it falls into the artist's trap.

146.

THE ARTIST'S SENSE OF TRUTH.—With regard to recognition of truths, the artist has a weaker morality than the thinker; he will on no account let himself be deprived of brilliant and profound interpretations of life, and defends himself against temperate and simple methods and results. He is apparently fighting for the higher worthiness and meaning of mankind ; in reality he will not renounce the *most effective* suppositions for his art, the fantastical, mythical, uncertain, extreme, the sense of the symbolical, the over-valuation of personality, the belief that genius is something miraculous, he considers, therefore, the continuance of his art of creation as more important than the scientific devotion to truth in every shape, however simple this may appear.

147.

ART AS RAISER OF THE DEAD.—Art also fulfils the task of preservation and even of brightening up extinguished and faded memories ; when it accomplishes this task it weaves a rope round the ages and causes their spirits to return. It is, certainly, only a phantom-life that results therefrom, as out of graves, or like the return in dreams of our beloved dead, but for some moments, at least, the old sensation lives again and the heart beats to an almost forgotten time. Hence, for the sake of the general usefulness of art, the artist himself must be excused if he does not stand in the front rank of the enlightenment and progressive civilisation of humanity; all his life long he has remained a child or a youth, and has stood still at the point where he was overcome by his artistic impulse ; the feelings of the first years of life, however, are acknowledged to be nearer to those of earlier times than to those of the present century. Unconsciously it becomes his mission to make mankind more childlike ; this is his glory and his limitation.

148.

POETS AS THE LIGHTENERS OF LIFE.—Poets, inasmuch as they desire to lighten the life of man, either divert his gaze from the wearisome present, or assist the present to acquire new colours by means of a life which they cause to shine out of the past. To be able to do this, they must in many respects themselves be beings who are turned towards the past, so that they can be used as bridges to far distant times and ideas, to dying or dead religions and cultures. Actually they are always and of necessity *epigoni*. There are, however, certain drawbacks to their means of lightening life,—they appease and heal only temporarily, only for the moment; they even prevent men from labouring towards a genuine improvement in their conditions, inasmuch as they remove and apply palliatives to precisely that passion of discontent that induces to action.

149.

THE SLOW ARROW OF BEAUTY.—The noblest kind of beauty is that which does not transport us suddenly, which does not make stormy and intoxicating impressions (such a kind easily arouses disgust), but that which slowly filters into our minds, which we take away with us almost unnoticed, and which we encounter again in our dreams ;

but which, however, after having long lain modestly on our hearts, takes entire possession of us, fills our eyes with tears and our hearts with longing. What is it that we long for at the sight of beauty? We long to be beautiful, we fancy it must bring much happiness with it. But that is a mistake.

150.

THE ANIMATION OF ART.—Art raises its head where creeds relax. It takes over many feelings and moods engendered by religion, lays them to its heart, and itself becomes deeper, more full of soul, so that it is capable of transmitting exultation and enthusiasm, which it previously was not able to do. The abundance of religious feelings which have grown into a stream are always breaking forth again and desire to conquer new kingdoms, but the growth of the Enlightenment undermined the dogmas of religion and inspired a fundamental mistrust of them—so that the feelings, thrust by the Enlightenment out of the religious sphere, throw themselves into art, in a few cases into political life, even straight into science. Everywhere where human endeavour wears a loftier, gloomier aspect, it may be assumed that the fear of spirits, incense, and church-shadows have remained attached to it.

151.

HOW METER BEAUTIFIES.—Meter casts a veil over reality [See: Goethe to Schiller, May 5, 1798.]; it causes various artificialities of speech and obscurities of thought; by the shadow it throws upon thought it sometimes conceals it, and sometimes brings it into prominence. As shadow is necessary to beauty, so the “dull” is necessary to lucidity. Art makes the aspect of life endurable by throwing over it the veil of obscure thought.

152.

THE ART OF THE UGLY SOUL.—Art is confined within too narrow limits if it be required that only the orderly, respectable, well-behaved soul should be allowed to express itself therein. As in the plastic arts, so also in music and poetry: there is an art of the ugly soul side by side with the art of the beautiful soul; and the mightiest effects of art, the crushing of souls, moving of stones and humanising of beasts, have perhaps been best achieved precisely by that art.

153.

ART MAKES HEAVY THE HEART OF THE THINKER.—How strong metaphysical need is and how difficult nature renders our departure from it may be seen from the fact that even in the free spirit, when he has cast off everything metaphysical, the loftiest effects of art can easily produce a resounding of the long silent, even broken, metaphysical string—it may be, for instance, that at a passage in Beethoven’s Ninth Symphony he feels himself floating above the earth in a starry dome with the dream of immortality in his heart; all the stars seem to shine round him, and the earth to sink farther and farther away.—If he becomes conscious of this state, he feels a deep pain at his heart, and sighs for the man who will lead back to him his lost darling, be it called religion or metaphysics. In such moments his intellectual character is put to the test.

154.

PLAYING WITH LIFE.—The lightness and frivolity of the Homeric imagination was necessary to calm and occasionally to raise the immoderately passionate temperament and acute intellect of the Greeks. If their intellect speaks, how harsh and cruel does life then appear! They do not deceive themselves, but they intentionally weave lies round life. Simonides advised his countrymen to look upon life as a game; earnestness was too well-known to them as pain (the gods so gladly hear the misery of mankind made the theme of song), and they knew that through art alone misery might be turned into pleasure. As a punishment for this insight, however, they were so plagued with the love of romancing that it was difficult for them in everyday life to keep themselves free from falsehood and deceit; for all poetic nations have such a love of falsehood, and yet are innocent withal. Probably this occasionally drove the neighboring nations to desperation.

155.

THE BELIEF IN INSPIRATION.—It is to the interest of the artist that there should be a belief in sudden suggestions, so-called inspirations; as if the idea of a work of art, of poetry, the fundamental thought of a philosophy

shone down from heaven like a ray of grace. In reality the imagination of the good artist or thinker constantly produces good, mediocre, and bad, but his power of judgment, most clear and practised, rejects and chooses and joins together, just as we now learn from Beethoven's notebooks that he gradually composed the most beautiful melodies, and in a manner selected them, from many different attempts. He who makes less severe distinctions, and willingly abandons himself to imitative memories, may under certain circumstances be come a great improvisatore; but artistic improvisation ranks low in comparison with serious and laboriously chosen artistic thoughts. All great men were great workers, unwearied not only in invention but also in rejection, reviewing, transforming, and arranging.

156.

INSPIRATION AGAIN.— If the productive power has been suspended for a length of time, and has been hindered in its outflow by some obstacle, there comes at last such a sudden outpouring, as if an immediate inspiration were taking place without previous inward working, consequently a miracle. This constitutes the familiar deception, in the continuance of which, as we have said, the interest of all artists is rather too much concerned. The capital has only accumulated, it has not suddenly fallen down from heaven. Moreover, such apparent inspirations are seen elsewhere, for instance in the realm of goodness, of virtue and of vice.

157.

THE SUFFERINGS OF GENIUS AND THEIR VALUE.— The artistic genius desires to give pleasure, but if his mind is on a very high plane he does not easily find any one to share his pleasure; he offers entertainment but nobody accepts it. This gives him, in certain circumstances, a comically touching pathos; for he has really no right to force pleasure on men. He pipes, but none will dance: can that be tragic? Perhaps.— As compensation for this deprivation, however, he finds more pleasure in creating than the rest of mankind experiences in all other species of activity. His sufferings are considered as exaggerated, because the sound of his complaints is louder and his tongue more eloquent; and yet sometimes his sufferings are really very great; but only because his ambition and his envy are so great. The learned genius, like Kepler and Spinoza, is usually not so covetous and does not make such an exhibition of his really greater sufferings and deprivations. He can reckon with greater certainty on future fame and can afford to do without the present, whilst an artist who does this always plays a desperate game that makes his heart ache. In very rare cases, when in one and the same individual are combined the genius of power and of knowledge and the moral genius, there is added to the above-mentioned pains that species of pain which must be regarded as the most curious exception in the world; an extra- and supra-personal sensibility attuned to a nation, to humanity, to all civilisation, to all suffering existence, which acquires its value through its connection with particularly difficult and remote perceptions (pity in itself is worth but little). But by what standard, on what scales can we measure whether or not it is genuine? Is it not almost imperative to be mistrustful of all who speak of possessing sensibilities of this sort?

158.

FATALITY OF GREATNESS.— Every great phenomenon is succeeded by degeneration, especially in the domain of art. The example of greatness incites all vainer natures to extreme imitation or attempts to outdo; in addition to which, all great talents have the fatal property of suppressing many weaker shoots and forces and as it were laying nature waste all around them. The most fortunate thing that can happen in the evolution of an art is that several geniuses appear together and keep one another in bounds; in the course of this struggle the weaker and tenderer natures too will usually be granted light and air.

159.

ART DANGEROUS TO THE ARTIST.— When art seizes violently on an individual it draws him back to the conceptions of those ages in which art flourished most mightily, and then it effects a retrogression in him. The artist acquires increasing reverence for sudden excitations, believes in gods and demons, instills a soul into nature, hates the sciences, becomes changeable of mood as were the men of antiquity and longs for an overthrowing of everything unfavorable to art, and he does this with all the vehemence and unreasonableness of a child. The artist is in himself

already a retarded being, inasmuch as he has halted at games that pertain to youth and childhood: to this there is now added his gradual retrogression to earlier times. Thus there at last arises a violent antagonism between him and the men of his period, of his own age, and his end is gloomy; just as, according to the tales told in antiquity, Homer and Aeschylus at last lived and died in melancholia.

160.

CREATED PEOPLE.— When we say the dramatist (and the artist in general) actually creates characters, this is a nice piece of deception and exaggeration in the existence and dissemination of which art celebrates one of its unintentional and as it were superfluous triumphs. In reality we understand very little of an actual living person and generalize very superficially when we attribute to him this or that character: well, the poet adopts the same very imperfect posture towards man as we do, in that his sketches of men are just as superficial as is our knowledge of men. There is much illusion involved in these created characters of the artists; they are in no way living products of nature, but, like painted people, a little too thin, they cannot endure inspection from close to. And if one should even venture to say that the character of the ordinary living man is often self-contradictory and that created by the dramatist the ideal that hovered dimly before the eye of nature, this would be quite wrong. An actual human being is something altogether necessary (even in those so-called contradictions), but we do not always recognize this necessity. The invented human being, the phantasm, desires to signify something necessary, but only in the eyes of those who comprehend even an actual human being only in a crude, unnatural simplification: so that a couple of striking, often repeated characteristics, with a great deal of light on them and a great deal of shadow and twilight around them, suffice to meet all their demands. They are thus quite ready to treat phantasms as actual, necessary human beings because they are accustomed when dealing with actual human beings to take a phantasm, a silhouette, an arbitrary abridgment for the whole.— That the painter and the sculptor, of all people, give expression to the "idea" of the human being is mere fantasizing and sense-deception: one is being tyrannized over by the eye when one says such a thing, since this sees even of the human body only the surface, the skin; the inner body, however, is just as much part of the idea. Plastic art wants to make characters visible on the outside; the art of speech employs the word to the same end, it delineates the character in sounds. Art begins from the natural ignorance of mankind as too his interior (both bodily and as regards character): it does not exist for physicists or philosophers.

161

SELF-OVERESTIMATION IN THE BELIEF IN ARTISTS AND PHILOSOPHERS.— We all think that a work of art, an artist, is proved to be of high quality if it seizes hold on us and profoundly moves us. But for this to be so our own high quality in judgment and sensibility would first have to have been proved: which is not the case. Who in the realm of the plastic arts has moved and enraptured more than Bernini, who has produced a mightier effect than that post-Demosthenes rhetor who introduced the Asiatic style and caused it to predominate for two centuries? Such a predominance over entire centuries proves nothing in regard to the quality or lasting validity of a style; that is why one should never be too firm in one's faith in any artist: for such a faith is not only faith in the veracity of our sensibility but also in the infallibility of our judgment, while our judgment or sensibility, or both of them, can themselves be too coarse or too refined, exaggerated or gross. The blessings and raptures conferred by a philosophy or a religion likewise prove nothing in regard to their truth: just as little as the happiness the madman enjoys from his *idée fixe* proves anything in regard to its rationality.

162.

THE CULT OF GENIUS FOR THE SAKE OF VANITY.— Because we think well of ourselves, but nevertheless do not imagine that we are capable of the conception of one of Raphael's pictures or of a scene such as those of one of Shakespeare's dramas, we persuade ourselves that the faculty for doing this is quite extraordinarily wonderful, a very rare case, or, if we are religiously inclined, a grace from above. Thus the cult of genius fosters our vanity, our self-love, for it is only when we think of it as very far removed from us, as a *miraculum*, that it does not wound us (even Goethe, who was free from envy, called Shakespeare a star of the farthest heavens, whereby we are reminded of the line "*die Sterne, die begehrt man nicht*" ^[11]). But, apart from those suggestions of our vanity, the activity of a

genius does not seem so radically different from the activity of a mechanical inventor, of an astronomer or historian or strategist. All these forms of activity are explicable if we realise men whose minds are active in one special direction, who make use of everything as material, who always eagerly study their own inward life and that of others, who find types and incitements everywhere, who never weary in the employment of their means. Genius does nothing but learn how to lay stones, then to build, always to seek for material and always to work upon it. Every human activity is marvellously complicated, and not only that of genius, but it is no "miracle." Now whence comes the belief that genius is found only in artists, orators, and philosophers, that they alone have "intuition" (by which we credit them with a kind of magic glass by means of which they see straight into one's "being")? It is clear that men only speak of genius where the workings of a great intellect are most agreeable to them and they have no desire to feel envious. To call any one "divine" is as much as saying "here we have no occasion for rivalry." Thus it is that everything completed and perfect is stared at, and everything incomplete is undervalued. Now nobody can see how the work of an artist has *developed*; that is its advantage, for everything of which the development is seen is looked on coldly. The perfected art of representation precludes all thought of its development, it tyrannises as a present perfection. For this reason artists of representation are especially held to be possessed of genius, but not scientific men. In reality, however, the former valuation and the latter under-valuation are only puerilities of reason.

163.

THE EARNESTNESS OF HANDICRAFT.—Do not talk of gifts, of inborn talents! We could mention great men of all kinds who were but little gifted. But they *obtained* greatness, became "geniuses" (as they are called), through qualities of the lack of which nobody who is conscious of them likes to speak. They all had that thorough earnestness for work which learns first how to form the different parts perfectly before it ventures to make a great whole; they gave themselves time for this, because they took more pleasure in doing small, accessory things well than in the effect of a dazzling whole. For instance, the recipe for becoming a good novelist is easily given, but the carrying out of the recipe presupposes qualities which we are in the habit of overlooking when we say, "I have not sufficient talent." Make a hundred or more sketches of novel-plots, none more than two pages long, but of such clearness that every word in them is necessary; write down anecdotes every day until you learn to find the most pregnant, most effective form; never weary of collecting and delineating human types and characters; above all, narrate things as often as possible and listen to narrations with a sharp eye and ear for the effect upon other people present; travel like a landscape painter and a designer of costumes; take from different sciences everything that is artistically effective, if it be well represented; finally, meditate on the motives for human actions, scorn not even the smallest point of instruction on this subject, and collect similar matters by day and night. Spend some ten years in these various exercises: then the creations of your study may be allowed to see the light of day. But what do most people do, on the contrary? They do not begin with the part, but with the whole. Perhaps they make one good stroke, excite attention, and ever afterwards their work grows worse and worse, for good, natural reasons. But sometimes, when intellect and character are lacking for the formation of such an artistic career, fate and necessity take the place of these qualities and lead the future master step by step through all the phases of his craft.

164.

THE DANGER AND THE GAIN IN THE CULT OF GENIUS.—The belief in great, superior, fertile minds is not necessarily, but still very frequently, connected with that wholly or partly religious superstition that those spirits are of superhuman origin and possess certain marvellous faculties, by means of which they obtained their knowledge in ways quite different from the rest of mankind. They are credited with having an immediate insight into the nature of the world, through a peep-hole in the mantle of the phenomenon as it were, and it is believed that, without the trouble and severity of science, by virtue of this marvellous prophetic sight, they could impart something final and decisive about mankind and the world. So long as there are still believers in miracles in the world of knowledge it may perhaps be admitted that the believers themselves derive a benefit therefrom, inasmuch as by their absolute subjection to great minds they obtain the best discipline and schooling for their own minds during the period of development. On the other hand, it may at least be questioned whether the superstition of genius, of its privileges and

special faculties, is useful for a genius himself when it implants itself in him. In any case it is a dangerous sign when man shudders at his own self, be it that famous Caesarian shudder or the shudder of genius which applies to this case, when the incense of sacrifice, which by rights is offered to a God alone, penetrates into the brain of the genius, so that he begins to waver and to look upon himself as something superhuman. The slow consequences are: the feeling of irresponsibility, the exceptional rights, the belief that mere intercourse with him confers a favour, and frantic rage at any attempt to compare him with others or even to place him below them and to bring into prominence whatever is unsuccessful in his work. Through the fact that he ceases to criticise himself one pinion after another falls out of his plumage,—that superstition undermines the foundation of his strength and even makes him a hypocrite after his power has failed him. For great minds it is, therefore, perhaps better when they come to an understanding about their strength and its source, when they comprehend what purely human qualities are mingled in them, what a combination they are of fortunate conditions : thus once it was continual energy, a decided application to individual aims, great personal courage, and then the good fortune of an education, which at an early period provided the best teachers, examples, and methods. Assuredly, if its aim is to make the greatest possible *effect*, abstruseness has always done much for itself and that gift of partial insanity ; for at all times that power has been admired and envied by means of which men were deprived of will and imbued with the fancy that they were preceded by supernatural leaders. Truly, men are exalted and inspired by the belief that some one among them is endowed with super- natural powers, and in this respect insanity, as Plato says, has brought the greatest blessings to mankind In a few rare cases this form of insanity may also have been the means by which an all-round exuberant nature was kept within bounds ; in individual life the imaginings of frenzy frequently exert the virtue of remedies which are poisons in themselves; but in every "genius" that believes in his own divinity the poison shows itself at last in the same proportion as the "genius" grows old ; we need but recollect the example of Napoleon, for it was most assuredly through his faith in himself and his star, and through his scorn of mankind, that he grew to that mighty unity which distinguished him from all modern men, until at last, however, this faith developed into an almost insane fatalism, robbed him of his quickness of comprehension and penetration, and was the cause of his downfall.

165.

GENIUS AND NULLITY.—It is precisely the *original* artists, those who create out of their own heads, who in certain circumstances can bring forth complete *emptiness* and husk, whilst the more dependent natures, the so-called talented ones, are full of memories of all manner of goodness, and even in a state of weakness produce something tolerable. But if the original ones are abandoned by themselves, memory renders them no assistance ; they become empty.

166.

THE PUBLIC.—The people really demands nothing more from tragedy than to be deeply affected, in order to have a good cry occasionally ; the artist, on the contrary, who sees the new tragedy, takes pleasure in the clever technical inventions and tricks, in the management and distribution of the material, in the novel arrangement of old motives and old ideas. His attitude is the aesthetic attitude towards a work of art, that of the creator ; the one first described, with regard solely to the material, is that of the people. Of the individual who stands between the two nothing need be said : he is neither "people" nor artist, and does not know what he wants therefore his pleasure is also clouded and insignificant

167.

THE ARTISTIC EDUCATION OF THE PUBLIC.—If the same *motif* is not employed in a hundred ways by different masters, the public never learns to get beyond their interest in the subject ; but at last, when it is well acquainted with the *motif* through countless different treatments, and no longer finds in it any charm of novelty or excitement, it will then begin to grasp and enjoy the various shades and delicate new inventions in its treatment.

168.

THE ARTIST AND HIS FOLLOWERS MUST KEEP IN STEP.—The progress from one grade of style to another must be so slow that not only the artists but also the auditors and spectators can follow it and know exactly what is

going on. Otherwise there will suddenly appear that great chasm between the artist, who creates his work upon a height apart, and the public, who cannot rise up to that height and finally sinks discontentedly deeper. For when the artist no longer raises his public it rapidly sinks downwards, and its fall is the deeper and more dangerous in proportion to the height to which genius has carried it, like the eagle, out of whose talons a tortoise that has been borne up into the clouds falls to its destruction.

169.

ORIGIN OF THE COMIC.— If one considers that man was for many hundreds of thousands of years an animal in the highest degree accessible to fear and that everything sudden and unexpected bade him prepare to fight and perhaps to die that even later on, indeed, in social relationships all security depended on the expected and traditional in opinion and action then one cannot be surprised if whenever something sudden and unexpected in word and deed happens without occasioning danger or injury man becomes wanton, passes over into the opposite of fear: the anxious, crouching creature springs up, greatly expands—man laughs. This transition from momentary anxiety to short-lived exuberance is called the comic. In the phenomenon of the tragic, on the other hand, man passes swiftly from great, enduring wantonness and great fear and anguish; since, however, great, enduring wantonness and high spirits is much rarer among mortals than occasions for fear, there is much more of the comic than the tragic in the world; we laugh much more often than we are profoundly shaken.

170.

ARTIST'S AMBITION.— The Greek artists, the tragedians for example, poetized in order to conquer; their whole art cannot be thought of apart from contest: Hesiod's good Eris, ambition, gave their genius its wings. Now this ambition demands above all that their work should preserve the highest excellence in their own eyes, as they understand excellence, that is to say, without reference to a dominating taste or the general opinion as to what constitutes excellence in a work of art; and thus Aeschylus and Euripides were for a long time unsuccessful until they had finally educated judges of art who assessed their work according to the standards they themselves laid down. It is thus they aspire to victory over their competitors as they understand victory, a victory before their own seat of judgment, they want actually to be more excellent; then they exact agreement from others as to their own assessment of themselves and confirmation of their own judgment. To aspire to honor here means: "to make oneself superior and to wish this superiority to be publicly acknowledged." If the former is lacking and the latter nonetheless still demanded, one speaks of vanity. If the latter is lacking and its absence not regretted, one speaks of pride.

171.

THE NECESSARY IN A WORK OF ART.— Those who talk so much of the necessary in a work of art exaggerate, if they are artists, *in majorem artis gloriam*^[12], or, if they are laity, out of ignorance. The forms of a work of art which express the ideas contained in it, its mode of speech that is to say, always have something easy-going about them, like all forms of speech. The sculptor can add many little details or leave them out: the performer likewise, whether he be an actor or, in the realm of music, a virtuoso or conductor. These many little details and elaborations today appeal to him, tomorrow not; they exist for the sake of the artist rather than for that of art, for he too, given the rigorousness and self-constraint the representation of his principal idea demands of him, occasionally requires sweetmeats and playthings if he is not to grow sullen and morose.

172.

CAUSING THE MASTER TO BE FORGOTTEN.— The pianist who performs the work of a master will have played best when he makes his listeners forget the master, when it seems as though he is relating a tale from his own life or is experiencing something at that very moment. To be sure, if he himself is nothing of consequence his listeners will execrate the loquacity with which he tells us about himself. He thus has to know how to engage the imagination of his listeners on his own behalf. Conversely, it is this which accounts for all the weaknesses and follies of "the virtuoso."

173.

CORRIGER LA FORTUNE^[13].— Evil chances occur in the lives of great artists such as compel a painter, for instance, to leave his finest picture in the form of mere hurried sketches, or which compelled Beethoven, for example, to leave behind to us in many great sonatas (as is the case of the great B major^[14]) only an unsatisfactory piano arrangement of a symphony. Here the artist coming after ought to try posthumously to amend the life of the master: which is what he would do, for example, who, as a master of orchestration, should waken to life for us that symphony now lying in the death-trance of the piano.

174.

DIMINUTION.— There are many things, events or people which cannot endure being reduced to scale. The Laokoon group cannot be reduced to a trinket; it needs to be large. But it is much rarer for something small by nature to be able to endure enlargement; which is why biographers will always have better success in diminishing the size of a great man than in enlarging that of a small one.

175.

SENSUALITY IN CONTEMPORARY ART.— Artists nowadays often go wrong when they labor to make their works of art produce a sensual effect; for their spectators or auditors are no longer in possession of a full sensuality and the effect which, quite contrary to his intention, the artist's work produces upon them is a feeling of "saintliness" closely related to boredom.— Their sensuality perhaps commences just where the artist's ceases; thus they encounter one another at one point at the most.

176.

SHAKESPEARE AS MORALIST.— Shakespeare reflected a great deal on the passions and from his temperament probably had very intimate access to many of them (dramatists are in general somewhat wicked men). But, unlike Montaigne, he was incapable of discoursing on them; instead of which he placed observations about the passions into the mouths of impassioned characters: a practice which, though counter to nature, makes his plays so full of ideas they make all others seem empty and can easily arouse in us a repugnance to them.— The maxims of Schiller (which are almost always based on ideas either false or trite) are designed purely for the theater, and as such they are extremely effective: while Shakespeare's do honor to his model, Montaigne, and contain entirely serious ideas in a polished form, but are for that reason too remote and subtle for the theater public and thus ineffective.

177.

GETTING ONESELF HEARD WELL.— One has to know, not only how to play well, but also how to get oneself heard well. The violin in the hands of the greatest master will emit only a chirp if the room is too big; and then the master sounds no better than any bungler.

178.

THE EFFECTIVENESS OF THE INCOMPLETE.— Just as figures in relief produce so strong an impression on the imagination because they are as it were on the point of stepping out of the wall but have suddenly been brought to a halt, so the relief-like, incomplete presentation of an idea, of a whole philosophy, is sometimes more effective than its exhaustive realization: more is left for the beholder to do, he is impelled to continue working on that which appears before him so strongly etched in light and shadow, to think it through to the end, and to overcome even that constraint which has hitherto prevented it from stepping forth fully formed.

179.

AGAINST ORIGINALITY.— When art dresses itself in the most worn-out material it is most easily recognized as art.

180.

COLLECTIVE SPIRIT.— A good writer possesses not only his own spirit but also the spirit of his friends.

181.

TWOFOLD MISJUDGMENT.— The misfortune suffered by clear-minded and easily understood writers is that they are taken for shallow and thus little effort is expended on reading them: and the good fortune that attends the obscure is that the reader toils at them and ascribes to them the pleasure he has in fact gained from his own zeal.

182.

RELATIONSHIP TO SCIENCE.— They lack a true interest in a science who begins to become enthusiastic about it only when they themselves have made discoveries in it.

183.

THE KEY.—A man of significance may set great store by an idea and all the insignificant laugh and mock at him for it: to him it is a key to hidden treasure-chambers, while to them it is no more than a piece of old iron.

184.

UNTRANSLATABLE.— It is neither the best nor the worst in a book that is untranslatable in it.

185.

AUTHOR'S PARADOXES.— The so-called paradoxes of an author to which a reader takes exception very often stand not at all in the author's book but in the reader's head.

186.

WIT.— The wittiest authors evoke the least perceptible smile.

187.

THE ANTITHESIS.— The antithesis is the narrow gateway through which error most likes to creep into truth.

188.

THINKERS AS STYLISTS.— Most thinkers write badly because they communicate to us not only their thoughts but also the thinking of their thoughts.

189.

THOUGHT IN POETRY.— The poet conducts thoughts along festively, in the carriage of rhythm: usually because they are incapable of walking on foot.

190.

SIN AGAINST THE SPIRIT OF THE READER.— If the author denies his talent merely so as to place himself on a level with his reader, he commits the only mortal sin the latter will never forgive him—supposing, that is, he notices it. One may say anything ill of a man one likes: but in the way one says it one must know how to restore his vanity again.

191.

LIMIT OF HONESTY.— Even the most honest writer lets fall a word too many when he wants to round off a period.

192.

THE BEST AUTHOR.— The best author will be he who is ashamed to become a writer.

193.

DRACONIAN LAW AGAINST WRITERS.— Writers ought to be treated as malefactors who deserve to be freed or pardoned only in the rarest cases: this would be a way of preventing the proliferation of books.

194.

THE LICENSED FOOLS OF MODERN CULTURE.— Our *feuilletonists* are like licensed medieval court fools: it is the same category of people. Half-rational, witty, excessive, silly, they are sometimes there only to soften the atmosphere of pathos with whimsy and chatter, and to drown out with their shouting the all too ponderous, solemn tintinnabulation of great events. Formerly they were in the service of princes and nobles; now they serve political

parties, for a good part of the people's old submissiveness in dealing with their prince still lives on in party feeling and party discipline. However, the whole class of modern men of letters is not far removed from the *feuilletonists* writers; they are the "licensed fools of modern culture," who are judged more mildly if they are taken as not quite accountable. To think of writing as one's life's profession should by rights be considered a kind of madness.

195.

AFTER THE GREEKS.— Knowledge today is greatly hindered by the fact that all words have become hazy and inflated through centuries of exaggerated feeling. The higher stage of culture, which places itself under the rule of knowledge (though not under its tyranny), requires a much greater sobriety of feeling and a stronger concentration of words—in this the Greeks in the age of Demosthenes preceded us. Extravagance characterizes all modern writings; even if they are written simply, the words in them are still felt too eccentrically. Rigorous reflection, compression, coldness, plainness (even taken intentionally to the limits)—in short, restraint of feeling and taciturnity: that alone can help.— Such a cold way of writing and feeling, incidentally, is now very attractive by its contrast; and therein, of course, lies a new danger. For bitter cold can be as good a stimulant as a high degree of heat.

196.

GOOD NARRATORS, BAD EXPLAINERS.— Good narrators can display in the actions of their characters an admirable psychological certainty and consistency, which often stands in downright ludicrous contrast to their lack of skill in thinking psychologically. Thus their culture appears at one moment as excellently high as in the next it appears regrettably low. Too often it even happens that they are obviously explaining the actions and natures of their own heroes incorrectly—there is no doubt about it, as improbable as it sounds. The greatest pianist may have thought only a little about technical requirements and the special virtue, vice, use and educability of each finger (dactylic ethics), and make crude errors when he speaks about such things.

197.

WRITING OF ACQUAINTANCES AND THEIR READERS.— We read the writings of acquaintances (friends and enemies) doubly, inasmuch as our knowledge keeps whispering alongside, "That is by him, a sign of his inner nature, his experience, his gift;" and, on the other hand, a different kind of knowledge tries to ascertain what the yield of the work itself is, what esteem it deserves aside from its author, what enrichment of learning it brings with it. As is self evident, these two kinds of reading and weighing interfere with one another. Even a conversation with a friend will produce good fruits of knowledge only when both people finally think solely of the matter at hand and forget that they are friends.

198.

SACRIFICE OF RHYTHM.— Good writers change the rhythm of some sentences simply because they do not credit the ordinary reader with the ability to grasp the meter of the sentence in its first version. So they simplify it for the reader, by choosing better-known rhythms.— Such consideration for the contemporary reader's lack of rhythmical ability has already elicited some sighs, for much has already been sacrificed to it.— Do good musicians experience the same thing?

199.

THE INCOMPLETE AS ARTISTIC STIMULANT.— Incompleteness is often more effective than completeness, especially in eulogies. For such purposes, one needs precisely a stimulating incompleteness as an irrational element that simulates a sea for the listener's imagination, and, like fog, hides its opposite shore, that is, the limitation of the subject being praised. If one mentions the well-known merits of a man, and is exhaustive and expansive in doing so, it always gives rise to the suspicion that these are his only merits. He who praises completely places himself above the man being praised; he seems to take him in at a glance. For that reason, completeness has a weakening effect.

200.

WARNING TO WRITERS AND TEACHERS.— He who has once written, and feels in himself the passion of writing, acquires from almost all he does and experiences only that which can be communicated through writing. He

no longer thinks of himself but of the writer and his public: he desires insight, but not for his own private use. He who is a teacher is usually incapable of any longer doing anything for his own benefit, he always thinks of the benefit of his pupils, and he takes pleasure in knowledge of any kind only insofar as he can teach it. He regards himself in the end as a thoroughfare of knowledge and as a means and instrument in general, so that he has ceased to be serious with regard to himself.^[15]

201.

BAD WRITERS NECESSARY.— There will always have to be bad writers, for they reflect the taste of undeveloped, immature age groups, who have needs as much as the mature do. If human life were longer, there would be more of the individuals who have matured than of the immature, or at least as many. But as it is, the great majority die too young, which means there are always many more undeveloped intellects with bad taste. Moreover, these people demand satisfaction of their needs with the greater vehemence of youth, and they force the existence of bad authors.

202.

TOO NEAR AND TOO FAR.— Often reader and author do not understand each other because the author knows his theme too well and finds it almost boring, so that he leaves out the examples he knows by the hundred; but the reader is strange to the matter and finds it poorly substantiated if the examples are withheld from him.

203.

A VANISHED PREPARATION FOR ART.— Of all the things the grammar school did, the most valuable was its training in Latin style, for this was an artistic exercise, while all other occupations were aimed solely at learning. To put the German essay first is barbarism, for we have no classical German style developed by a tradition of public eloquence; but if one wants to use the German essay to further the practice of thinking, it is certainly better if one ignores the style entirely for the time being, thus distinguishing between exercise in thinking and in describing. The latter should be concerned with multiple versions of a given content, and not with independent invention of the content. Description only, with the content given, was the assignment of Latin style, for which the old teachers possessed a long-since-lost refinement of hearing. Anyone who in the past learned to write well in a modern language owed it to this exercise (now one is obliged to go to school under the older French teachers); and still further: he gained a concept of the majesty and difficulty of form, and was prepared for art in general in the only possible right way: through practice.

204.

DARK AND TOO BRIGHT SIDE BY SIDE.— Writers who do not know how to express their thoughts clearly in general, will in particular prefer to select the strongest, most exaggerated terms and superlatives: this produces an effect as of torchlights along confusing forest paths.

205.

PAINTING IN WRITING.— When portraying important objects, one will do best to take the colors for the painting from the object itself, as would a chemist, and then to use them as would an artist, allowing the design to develop out of the distinctions and blendings of the colors. In this way, the painting acquires something of the thrilling innate quality that makes the object itself significant.

206.

BOOKS WHICH TEACH ONE TO DANCE.— There are writers who, by portraying the impossible as possible, and by speaking of morality and genius as if both were merely a mood or a whim, elicit a feeling of high-spirited freedom, as if man were rising up on tiptoe and simply had to dance out of inner pleasure.

207

UNCOMPLETED THOUGHTS.— Just as youth and childhood have value in themselves (as much as the prime of life) and are not to be considered a mere transition or bridge, so too do unfinished thoughts have their own value.

Thus we must not pester a poet with subtle interpretations, but should take pleasure in the uncertainty of his horizon, as if the road to various other thoughts were still open. We stand on the threshold; we wait as if a treasure were being dug up; it is as if a lucky trove of profundity were about to be found. The poet anticipates something of the thinker's pleasure in finding a central thought and in doing so makes us covetous, so that we snatch at it. But it flutters past over our heads, showing the loveliest butterfly wings—and yet it slips away from us.

208.

THE BOOK BECOME ALMOST HUMAN.— Every writer is surprised anew when a book, as soon as it has separated from him, begins to take on a life of its own. He feels as if one part of an insect had been severed and were going its own way. Perhaps he almost forgets the book; perhaps he rises above the views set down in it; perhaps he no longer understands it and has lost those wings on which he soared when he devised that book. Meanwhile, it goes about finding its readers, kindles life, pleases, horrifies, fathers new works, becomes the soul of others' resolutions and behavior—in short, it lives like a being fitted out with mind and soul and yet it is nevertheless not human.— The most fortunate author is one who is able to say as an old man that all he had of life-giving, invigorating, uplifting, enlightening thoughts and feelings still lives on in his writings, and that he himself is only the gray ash, while the fire has been rescued and carried forth everywhere.— If one considers, then, that a man's every action, not only his books, in some way becomes the occasion for other actions, decisions, and thoughts; that everything which is happening is inextricably tied to everything which will happen; then one understands the real immortality, that of movement: what once has moved others is like an insect in amber, enclosed and immortalized in the general intertwining of all that exists.

209.

JOY IN AGE.— The thinker or artist whose better self has fled into his works feels an almost malicious joy when he sees his body and spirit slowly broken into and destroyed by time; it is as if he were in a corner, watching a thief at work on his safe, all the while knowing that it is empty and that all his treasures have been rescued.

210.

QUIET FRUITFULNESS.— The born aristocrats of the spirit are not too zealous: their creations appear and fall from the tree on a quiet autumn evening unprecipitately, in due time, not quickly pushed aside by something new. The desire to create continually is vulgar and betrays jealousy, envy, ambition. If one is something one really does not need to make anything—and one nonetheless does very much. There exists above the "productive" man a yet higher species.

211.

ACHILLES AND HOMER.— It is always as between Achilles and Homer: the one has the experience, the sensation, the other describes it. A true writer only bestows words on the emotions and experiences of others, he is an artist so as to divine much from the little he himself has felt. Artists are by no means men of great passion but they often pretend to be, in the unconscious feeling that their painted passions will seem more believable if their own life speaks for their experience in this field. One has only to let oneself go, to abandon self-control, to give rein to one's anger or desires: at once all the world cries: how passionate he is! But deep-rooted passion, passion which gnaws at the individual and often consumes him, is a thing of some consequence: he who experiences such passion certainly does not describe it in dramas, music or novels. Artists are often unbridled individuals to the extent that they are not artists: but that is something else.

212.

OLD DOUBTS OVER THE EFFECT OF ART.— Are fear and pity really discharged by tragedy, as Aristotle has it^[16], so that the auditor goes home colder and more placid? Do ghost stories make one less fearful and superstitious? It is true in the case of certain physical events, the enjoyment of love for example, that with the satisfaction of a need an alleviation and temporary relaxation of the drive occurs. But fear and pity are not in this sense needs of definite organs which want to be relieved. And in the long run a drive is, through practice in

satisfying it, intensified, its periodical alleviation notwithstanding. It is possible that in each individual instance fear and pity are mitigated and discharged: they could nonetheless grow greater as a whole through the tragic effect in general, and Plato could still be right when he says that through tragedy one becomes generally more fearful and emotional. The tragic poet himself would then necessarily acquire a gloomy, disheartened view of the world and a soft, susceptible, tearful soul, and it would likewise accord with Plato's opinion of the matter if the tragic poet and with him whole city communities which take especial delight in him should degenerate to ever greater unbridledness and immoderation.—But what right has our age to offer an answer to Plato's great question concerning the moral influence of art at all? Even if we possessed art—what influence of any kind does art exercise among us?

213.

PLEASURE IN NONSENSE.— How can man take pleasure in nonsense? For wherever in the world there is laughter this is the case; one can say, indeed, that almost everywhere there is happiness there is pleasure in nonsense. The overturning of experience into its opposite, of the purposive into the purposeless, of the necessary into the arbitrary, but in such a way that this event causes no harm and is imagined as occasioned by high spirits, delights us, for it momentarily liberates us from the constraint of the necessary, the purposive and that which corresponds to our experience which we usually see as our inexorable masters; we play and laugh when the expected (which usually makes us fearful and tense) discharges itself harmlessly. It is the pleasure of the slave at the Saturnalia.

214.

ENNOBLEMENT OF REALITY.— Because men once took the aphrodisiacal drive to be a godhead, showing worshipful gratitude when they felt its effect, that emotion has in the course of time been permeated with higher kinds of ideas, and thus in fact greatly ennobled. By virtue of this idealizing art, some peoples have turned diseases into great beneficial forces of culture: the Greeks, for example, who in earlier centuries suffered from widespread nervous epidemics (similar to epilepsy and the St. Vitus Dance) and created the glorious prototype of the bacchante from them.— For the health of the Greeks was not at all robust;—their secret was to honor illness like a god, too, if only it were powerful.

215.

MUSIC.— Music is, of and in itself, not so significant for our inner world, nor so profoundly exciting, that it can be said to count as the immediate language of feeling; but its primeval union with poetry has deposited so much symbolism into rhythmic movement, into the varying strength and volume of musical sounds, that we now suppose it to speak directly to the inner world and to come from the inner world. Dramatic music becomes possible only when the tonal art has conquered an enormous domain of symbolic means, through song, opera and a hundred experiments in tone-painting. "Absolute music" is either form in itself, at a primitive stage of music in which sounds made in tempo and at varying volume gave pleasure as such, or symbolism of form speaking to the understanding without poetry after both arts had been united over a long course of evolution and the musical form had finally become entirely enmeshed in threads of feeling and concepts. Men who have remained behind in the evolution of music can understand in a purely formalistic way the same piece of music as the more advanced understand wholly symbolically. In itself, no music is profound or significant, it does not speak of the "will" or of the "thing-in-itself"; the intellect could suppose such a thing only in an age which had conquered for musical symbolism the entire compass of the inner life. It was the intellect itself which first introduced this significance into sounds: just as, in the case of architecture, it likewise introduced a significance into the relations between lines and masses which is in itself quite unknown to the laws of mechanics.

216.

GESTURE AND LANGUAGE.— Imitation of gesture is older than language, and goes on involuntarily even now, when the language of gesture is universally suppressed, and the educated are taught to control their muscles. The imitation of gesture is so strong that we cannot watch a face in movement without the innervation of our own face (one can observe that feigned yawning will evoke natural yawning in the man who observes it). The imitated gesture led the imitator back to the sensation expressed by the gesture in the body or face of the one being imitated. This is

how we learned to understand one another; this is how the child still learns to understand its mother. In general, painful sensations were probably also expressed by a gesture that in its turn caused pain (for example, tearing the hair, beating the breast, violent distortion and tensing of the facial muscles). Conversely, gestures of pleasure were themselves pleasurable and were therefore easily suited to the communication of understanding (laughing as a sign of being tickled, which is pleasurable, then served to express other pleasurable sensations).— As soon as men understood each other in gesture, a symbolism of gesture could evolve. I mean, one could agree on a language of tonal signs, in such a way that at first both tone and gesture (which were joined by tone symbolically) were produced, and later only the tone.— It seems that in earlier times, something must often have occurred much like what is now going on before our eyes and ears in the development of music; namely of dramatic music: while music without explanatory dance and miming (language of gesture) is at first empty noise, long habituation to that juxtaposition of music and gesture teaches the ear an immediate understanding of the tonal figures. Finally, the ear reaches a level of rapid understanding such that it no longer requires visible movement, and understands the composer without it. Then we are talking about absolute music, that is, music in which everything can be understood symbolically, without further aids.

217.

THE DESENSUALIZATION OF HIGHER ART.— Because the artistic development of modern music has forced the intellect to undergo an extraordinary training, our ears have become increasingly intellectual. Thus we can now endure much greater volume, much greater "noise," because we are much better trained than our forefathers were to listen for the reason in it. All our senses have in fact become somewhat dulled because we always inquire after the reason, what "it means" and no longer what "it is." Such a dullness is betrayed, for example, by the unqualified rule of tempered notes. For now those ears still able to make the finer distinctions, say, between C-sharp and D-flat are exceptions. In this regard, our ear has become coarsened. Furthermore, the ugly side of the world, originally inimical to the senses, has been won over for music. Its area of power to express the sublime, the frightful, and the mysterious, has thus been astonishingly extended. Our music makes things speak that before had no tongue. Similarly, some painters have made the eye more intellectual, and have gone far beyond what was previously called a joy in form and color. Here, too, that side of the world originally considered ugly has been conquered by artistic understanding.— What is the consequence of all this? The more the eye and ear are capable of thought, the more they reach that boundary line where they become unsensual. Joy is transferred to the brain; the sense organs themselves become dull and weak. More and more, the symbolic replaces that which exists—and so, as surely as on any other path, we arrive along this one at barbarism. For the present, it is still said that the world is uglier than ever, but it means a more beautiful world than ever existed. But the more the perfumed fragrance of meaning is dispersed and evaporated, the rarer will be those who can still perceive it. And the rest will stay put at ugliness, seeking to enjoy it directly; such an attempt is bound to fail. Thus we have in Germany a twofold trend in musical development: on the one side, a group of ten thousand with ever higher, more delicate pretensions, ever more attuned to "what it means"; and on the other side, the vast majority, which each year is becoming ever more incapable of understanding meaning, even in the form of sensual ugliness, and is therefore learning to reach out with increasing pleasure for that which is intrinsically ugly and repulsive, that is, the basely sensual.

218.

A STONE IS MORE OF A STONE THAN FORMERLY.—As a general rule we no longer understand architecture, at least by no means in the same way as we understand music. We have outgrown the symbolism of lines and figures, just as we are no longer accustomed to the sound-effects of rhetoric, and have not absorbed this kind of mother's milk of culture since our first moment of life. Everything in a Greek or Christian building originally had a meaning, and referred to a higher order of things; this feeling of inexhaustible meaning enveloped the edifice like a mystic veil. Beauty was only a secondary consideration in the system, without in any way materially injuring the fundamental sentiment of the mysteriously-exalted, the divinely and magically consecrated; at the most, beauty *tempered horror*—but this horror was everywhere presupposed. What is the beauty of a building now? The same

thing as the beautiful ' face of a stupid woman, a kind of mask.

219.

THE RELIGIOUS SOURCE OF THE NEWER MUSIC.—Soulful music arose out of the Catholicism re-established after the Council of Trent, through Palestrina, who endowed the newly-awakened, earnest, and deeply moved spirit with sound; later on, in Bach, it appeared also in Protestantism, as far as this had been deepened by the Pietists and released from its originally dogmatic character. The supposition and necessary preparation for both origins is the familiarity with music, which existed during and before the Renaissance, namely that learned occupation with music, which was really scientific pleasure in the masterpieces of harmony and voice-training. On the other hand, the opera must have preceded it, wherein the layman made his protest against a music that had grown too learned and cold, and endeavoured to re-endow Polyhymnia with a soul. Without the change to that deeply religious sentiment, without the dying away of the inwardly moved temperament, music would have remained learned or operatic ; the spirit of the counter-reformation is the spirit of modern music (for that pietism in Bach's music is also a kind of counter-reformation). So deeply are we indebted to the religious life. Music was the counter-reformation in the field of art ; to this belongs also the later painting of the Caracci and Caravaggi, perhaps also the baroque style, in any case more than the architecture of the Renaissance or of antiquity. And we might still ask : if our newer music could move stones, would it build them up into antique architecture? I very much doubt it. For that which predominates in this music, affections, pleasure in exalted, highly-strained sentiments, the desire to be alive at any cost, the quick change of feeling, the strong relief-effects of light and shade, the combination of the ecstatic and the naive,—all this has already reigned in the plastic arts and created new laws of style : but it was neither in the time of antiquity nor of the Renaissance.

220.

THE BEYOND IN ART.—It is not without deep pain that we acknowledge the fact that in their loftiest soarings, artists of all ages have exalted and divinely transfigured precisely those ideas which we now recognise as false; they are the glorifiers of humanity's religious and philosophical errors, and they could not have been this without belief in the absolute truth of these errors. But if the belief in such truth diminishes at all, if the rainbow colours at the farthest ends of human knowledge and imagination fade, then this kind of art can never re-flourish, for, like the *Divina Commedia*, Raphael's paintings, Michelangelo's frescoes, and Gothic cathedrals, they indicate not only a cosmic but also a metaphysical meaning in the work of art. Out of all this will grow a touching legend that such an art and such an artistic faith once existed.

221.

REVOLUTION IN POETRY.—The strict limit which the French dramatists marked out with regard to unity of action, time and place, construction of style, verse and sentence, selection of words and ideas, was a school as important as that of counterpoint and fugue in the development of modern music or that of the Gorgianic figures in Greek oratory. Such a restriction may appear absurd ; nevertheless there is no means of getting out of naturalism except by confining ourselves at first to the strongest (perhaps most arbitrary) means. Thus we gradually learn to walk gracefully on the narrow paths that bridge giddy abysses, and acquire great suppleness of movement as a result, as the history of music proves to our living eyes. Here we see how, step by step, the fetters get looser, until at last they may appear to be altogether thrown off; this *appearance* is the highest achievement of a necessary development in art. In the art of modern poetry there existed no such fortunate, gradual emerging from self-imposed fetters. Lessing held up to scorn in Germany the French form, the only modern form of art, and pointed to Shakespeare ; and thus the steadiness of that unfettering was lost and a spring was made into naturalism—that is, back into the beginnings of art. From this Goethe endeavoured to save himself, by always trying to limit himself anew in different ways ; but even the most gifted only succeeds by continuously experimenting, if the thread of development has once been broken. It is to the unconsciously revered, if also repudiated, model of French tragedy that Schiller owes his comparative sureness of form, and he remained fairly independent of Lessing (whose dramatic attempts he is well known to have rejected). But after Voltaire the French themselves suddenly lacked the great talents which would

have led the development of tragedy out of constraint to that apparent freedom ; later on they followed the German example and made a spring into a sort of Rousseau-like state of nature and experiments. It is only necessary to read Voltaire's " Mahomet " from time to time in order to perceive clearly what European culture has lost through that breaking down of tradition. Once for all, Voltaire was the last of the great dramatists who with Greek proportion controlled his manifold soul, equal even to the greatest storms of tragedy, —he was able to do what no German could, because the French nature is much nearer akin to the Greek than is the German ; he was also the last great writer who in the wielding of prose possessed the Greek ear, Greek artistic conscientiousness, and Greek simplicity and grace ; he was, also, one of the last men able to combine in himself the greatest freedom of mind and an absolutely unrevolutionary way of thinking without being inconsistent and cowardly. Since that time the modern spirit, with its restlessness and its hatred of moderation and restrictions, has obtained the mastery on all sides, let loose at first by the fever of revolution, and then once more putting a bridle on itself when it became filled with fear and horror at itself,—but it was the bridle of rigid logic, no longer that of artistic moderation. It is true that through that unfettering for a time we are able to enjoy the poetry of all nations, everything that has sprung up in hidden places, original, wild, wonderfully beautiful and gigantically irregular, from folk-songs up to the " great barbarian " Shakespeare ; we taste the joys of local colour and costume, hitherto unknown to all artistic nations ; we make liberal use of the " barbaric advantages " of our time, which Goethe accentuated against Schiller in order to place the formlessness of his *Faust* in the most favourable light. But for how much longer ? The encroaching flood of poetry of all styles and all nations must gradually sweep away that magic garden upon which a quiet and hidden growth would still have been possible ; all poets *must* become experimenting imitators, daring copyists, however great their primary strength may be. Eventually, the public, which has lost the habit of seeing the actual artistic fact in the *controlling* of depicting power, in the organising mastery over all art-means, *must* come ever more and more to value power for power's sake, colour for colour's sake, idea for idea's sake, inspiration for inspiration's sake ; accordingly it will not enjoy the elements and conditions of the work of art, unless *isolated*, and finally will make the very natural demand that the artist *must* deliver it to them isolated. True, the " senseless " fetters of Franco-Greek art have been thrown off, but unconsciously we have grown accustomed to consider all fetters, all restrictions as senseless ; and so art moves towards its liberation, but, in so doing, it touches—which is certainly highly edifying—upon all the phases of its beginning, its childhood, its incompleteness, its sometime boldness and excesses, in perishing it interprets its origin and growth. One of the great ones, whose instinct may be relied on and whose theory lacked nothing but thirty years *more* of practice, Lord Byron, once said : that with regard to poetry in general, the more he thought about it the more convinced he was that one and all we are entirely on a wrong track, that we are following an inwardly false revolutionary system, and that either our own generation or the next will yet arrive at this same conviction. It is the same Lord Byron who said that he " looked upon Shakespeare as the very worst model, although the most extraordinary poet." And does not Goethe's mature artistic insight in the second half of his life say practically the same thing?—that insight by means of which he made such a bound in advance of whole generations that, generally speaking, it may be said that Goethe's influence has not yet begun, that his time has still to come. Just because his nature held him fast for a long time in the path of the poetical revolution, just because he drank to the dregs of whatsoever new sources, views and expedients had been indirectly discovered through that breaking down of tradition, of all that had been unearthed from under the ruins of art, his later transformation and conversion carries so much weight ; it shows that he felt the deepest longing to win back the traditions of art, and to give in fancy the ancient perfection and completeness to the abandoned ruins and colonnades of the temple, with the imagination of the eye at least, should the strength of the arm be found too weak to build where such tremendous powers were needed even to destroy. Thus he lived in art as in the remembrance of the true art, his poetry had become an aid to remembrance, to the understanding of old and long-departed ages of art. With respect to the strength of the new age, his demands could not be satisfied ; but the pain this occasioned was amply balanced by the joy that they have been satisfied once, and that we ourselves can still participate in this satisfaction. Not individuals, but more or less ideal masks ; no reality, but an allegorical generality ; topical characters, local colours toned down and rendered mythical almost to the point of in-visibility ; contemporary feeling and the problems of contemporary society reduced to the

simplest forms, stripped of their attractive, interesting pathological qualities, made *ineffective* in every other but the artistic sense ; no new materials and characters, but the old, long-accustomed ones in constant new animation and transformation ; that is art, as Goethe *understood* it later, as the Greeks and even the French *practised* it.

222.

WHAT REMAINS OF ART. It is true that art has a much greater value in the case of certain metaphysical hypotheses, for instance when the belief obtains that the character is unchangeable and that the essence of the world manifests itself continually in all character and action ; thus the artist's work becomes the symbol of the eternally constant, while according to our views the artist can only endow his picture with temporary value, because man on the whole has developed and is mutable, and even the individual man has nothing fixed and constant. The same thing holds good with another metaphysical hypothesis : assuming that our visible world were only a delusion, as metaphysicians declare, then art would come very close to the real world; for there would be much similarity between the world of appearance and the artist's world of dream images; the remaining difference would actually enhance the meaning of art rather than the meaning of nature, because art would portray the symmetry, the types and models of nature.— But such assumptions are wrong: what place remains for art, then, after this knowledge? Above all, for thousands of years, it has taught us to see every form of life with interest and joy, and to develop our sensibility so that we finally call out, "However it may be, life is good." ^[17] This teaching of art-to have joy in existence and to regard human life as a part of nature, without being moved too violently, as something that developed through laws—this teaching has taken root in us; it now comes to light again as an all-powerful need for knowledge. We could give art up, but in doing so we would not forfeit what it has taught us to do. Similarly, we have given up religion, but not the emotional intensification and exaltation it led to. As plastic art and music are the standard for the wealth of feeling really earned and won through religion, so the intense and manifold joy in life, which art implants in us, would still demand satisfaction were art to disappear. The scientific man is a further development of the artistic man.

223

EVENING TWILIGHT OF ART.— Just as in an old age one remembers one's youth and celebrates festivals of remembrance, so will mankind soon stand in relation to art: it will be a moving recollection of the joys of youth. Perhaps art has never before been comprehended so profoundly or with so much feeling as it is now, when the magic of death seems to play around it. Recall that Greek city in south Italy which on one day of the year continued to celebrate their Greek festival and did so with tears and sadness at the fact that foreign barbarism was triumphing more and more over the customs they had brought with them; it is to be doubted whether the Hellenic has ever been so greatly savored, or its golden nectar imbibed with so much relish, as it was among these declining Hellenes. The artist will soon be regarded as a glorious relic, and we shall bestow upon him, as a marvelous stranger upon whose strength and beauty the happiness of former ages depended, honors such as we do not grant to others of our own kind. The best in us has perhaps been inherited from the sensibilities of earlier ages to which we hardly any longer have access by direct paths; the sun has already set, but the sky of our life still glows with its light, even though we no longer see it.

FIFTH DIVISION - The Signs of Higher and Lower Culture.

224.

ENNOBLEMENT THROUGH DEGENERATION.—History teaches that a race of people is best preserved where the greater number hold one common spirit in consequence of the similarity of their accustomed and indisputable principles : in consequence, therefore, of their common faith. Thus strength is afforded by good and thorough customs, thus is learnt the subjection of the individual, and strenuousness of character becomes a birth gift and afterwards is fostered as a habit. The danger to these communities founded on individuals of strong and similar character is that gradually increasing stupidity through transmission, which follows all stability like its shadow. It is on the more unrestricted, more uncertain and morally weaker individuals that depends the *intellectual progress* of

such communities, it is they who attempt all that is new and manifold. Numbers of these perish on account of their weakness, without having achieved any specially visible effect; but generally, particularly when they have descendants, they flare up and from time to time inflict a wound on the stable element of the community. Precisely in this sore and weakened place the community is *inoculated* with something new ; but its general strength must be great enough to absorb and assimilate this new thing into its blood. Deviating natures are of the utmost importance wherever there is to be progress. Every wholesale progress must be preceded by a partial weakening. The strongest natures *retain* the type, the weaker ones help it to *develop*. Something similar happens in the case of individuals ; a deterioration, a mutilation, even a vice and, above all, a physical or moral loss is seldom without its advantage. For instance, a sickly man in the midst of a warlike and restless race will perhaps have more chance of being alone and thereby growing quieter and wiser, the one-eyed man will possess a stronger eye, the blind man will have a deeper inward sight and will certainly have a keener sense of hearing. In so far it appears to me that the famous Struggle for Existence is not the only point of view from which an explanation can be given of the progress or strengthening of an individual or a race. Rather must two different things converge : firstly, the multiplying of stable strength through mental binding in faith and common feeling ; secondly, the possibility of attaining to higher aims, through the fact that there are deviating natures and, in consequence, partial weakening and wounding of the stable strength ; it is precisely the weaker nature, as the more delicate and free, that makes all progress at all possible. A people that is crumbling and weak in any one part, but as a whole still strong and healthy, is able to absorb the infection of what is new and incorporate it to its advantage. The task of education in a single individual is this : to plant him so firmly and surely that, as a whole, he can no longer be diverted from his path. Then, however, the educator must wound him, or else make use of the wounds which fate inflicts, and when pain and need have thus arisen, something new and noble can be inoculated into the wounded places. With regard to the State, Machiavelli says that, " the form of Government is of very small importance, although half-educated people think otherwise. The great aim of State-craft should be duration, which outweighs all else, inasmuch as it is more valuable than liberty." It is only with securely founded and guaranteed duration that continual development and ennobling inoculation are at all possible. As a rule, however, authority, the dangerous companion of all duration, will rise in opposition to this.

225.

FREE-THINKER A RELATIVE TERM.—We call that man a free-thinker who thinks otherwise than is expected of him in consideration of his origin, surroundings, position, and office, or by reason of the prevailing contemporary views. He is the exception, fettered minds are the rule ; these latter reproach him, saying that his free principles either have their origin in a desire to be remarkable or else cause free actions to be inferred,—that is to say, actions which are not compatible with fettered morality. Sometimes it is also said that the cause of such and such free principles may be traced to mental perversity and extravagance ; but only malice speaks thus, nor does it believe what it says, but wishes thereby to do an injury, for the free-thinker usually bears the proof of his greater goodness and keenness of intellect written in his face so plainly that the fettered spirits understand it well enough. But the two other derivations of free-thought are honestly intended ; as a matter of fact, many free-thinkers are created in one or other of these ways. For this reason, however, the tenets to which they attain in this manner might be truer and more reliable than those of the fettered spirits. In the knowledge of truth, what really matters is the *possession* of it, not the impulse under which it was sought, the way in which it was found. If the free-thinkers are right then the fettered spirits are wrong, and it is a matter of indifference whether the former have reached truth through immorality or the latter hitherto retained hold of untruths through morality. Moreover, it is not essential to the free-thinker that he should hold more correct views, but that he should have liberated himself from what was customary, be it successfully or disastrously. As a rule, however, he will have truth, or at least the spirit of truth-investigation, on his side ; he demands reasons, the others demand faith.

226.

THE ORIGIN OF FAITH.—The fettered spirit does not take up his position from conviction, but from habit ; he is a Christian, for instance, not because he had a comprehension of different creeds and could take his choice ; he is an

Englishman, not because he decided for England, but he found Christianity and England ready-made and accepted them without any reason, just as one who is born in a wine-country becomes a wine-drinker. Later on, perhaps, as he was a Christian and an Englishman, he discovered a few reasons in favour of his habit; these reasons may be upset, but he is not therefore upset in his whole position. For instance, let a fettered spirit be obliged to bring forward his reasons against bigamy and then it will be seen whether his holy zeal in favour of monogamy is based upon reason or upon custom. The adoption of guiding principles without reasons is called *faith*.

227.

CONCLUSIONS DRAWN FROM THE CONSEQUENCES AND TRACED BACK TO REASON AND UN-REASON.—All states and orders of society, professions, matrimony, education, law : all these find strength and duration only in the faith which the fettered spirits repose in them,—that is, in the absence of reasons, or at least in the averting of inquiries as to reasons. The restricted spirits do not willingly acknowledge this, and feel that it is a *pudendum*. Christianity, however, which was very simple in its intellectual ideas, remarked nothing of this *pudendum*, required faith and nothing but faith, and passionately repulsed the demand for reasons; it pointed to the success of faith: "You will soon feel the advantages of faith," it suggested, "and through faith shall ye be saved." As an actual fact, the State pursues the same course, and every father brings up his son in the same way : "Only believe this," he says, "and you will soon feel the good it does." This implies, however, that the truth of an opinion is proved by its personal usefulness ; the wholesomeness of a doctrine must be a guarantee for its intellectual surety and solidity. It is exactly as if an accused person in a court of law were to say, "My counsel speaks the whole truth, for only see what is the result of his speech: I shall be acquitted." Because the fettered spirits retain their principles on account of their usefulness, they suppose that the free spirit also seeks his own advantage in his views and only holds that to be true which is profitable to him. But as he appears to find profitable just the contrary of that which his compatriots or equals find profitable, these latter assume that his principles are dangerous to them ; they say or feel, "He must not be right, for he is injurious to us."

228.

THE STRONG, GOOD CHARACTER.—The restriction of views, which habit has made instinct, leads to what is called strength of character. When any one acts from few but always from the same motives, his actions acquire great energy ; if these actions accord with the principles of the fettered spirits they are recognised, and they produce, moreover, in those who perform them the sensation of a good conscience. Few motives, energetic action, and a good conscience compose what is called strength of character. The man of strong character lacks a knowledge of the many possibilities and directions of action ; his intellect is fettered and restricted, because in a given case it shows him, perhaps, only two possibilities ; between these two he must now of necessity choose, in accordance with his whole nature, and he does this easily and quickly because he has not to choose between fifty possibilities. The educating surroundings aim at fettering every individual, by always placing before him the smallest number of possibilities. The individual is always treated by his educators as if he were, indeed, something new, but should become a *duplicate*. If he makes his first appearance as something unknown, unprecedented, he must be turned into something known and preceded. In a child, the familiar manifestation of restriction is called a good character; in placing itself on the side of the fettered spirits the child first discloses its awakening common feeling; with this foundation of common sentiment, he will eventually become useful to his State or rank.

229.

THE STANDARDS AND VALUES OF THE FETTERED SPIRITS.—There are four species of things concerning which the restricted spirits say they are in the right. Firstly : all things that last are right; secondly: all things that are not burdens to us are right ; thirdly : all things that are advantageous for us are right ; fourthly : all things for which we have made sacrifices are right. The last sentence, for instance, explains why a war that was begun in opposition to popular feeling is carried on with enthusiasm directly a sacrifice has been made for it. The free spirits, who bring their case before the forum of the fettered spirits, must prove that free spirits always existed, that free-spiritism is therefore enduring, that it will not become a burden, and, finally, that on the whole they are an advantage to the

fettered spirits. It is because they cannot convince the restricted spirits on this last point that they profit nothing by having proved the first and second propositions.

230.

ESPRIT FORT.—Compared with him who has tradition on his side and requires no reasons for his actions, the free spirit is always weak, especially in action ; for he is acquainted with too many motives and points of view, and has, therefore, an uncertain and unpractised hand. What means exist of making him *strong in spite of this*, so that he will, at least, manage to survive, and will not perish ineffectually? What is the source of the strong spirit (*esprit fort*) ? This is especially the question as to the production of genius. Whence comes the energy, the unbending strength, the endurance with which the one, in opposition to accepted ideas, endeavours to obtain an entirely individual knowledge of the world ?

231.

THE RISE OF GENIUS.—The ingenuity with which a prisoner seeks the means of freedom, the most cold-blooded and patient employment of every smallest advantage, can teach us of what tools Nature sometimes makes use in order to produce Genius,—a word which I beg will be understood without any mythological and religious flavour; she, Nature, begins it in a dungeon and excites to the utmost its desire to free itself. Or to give another picture : some one who has completely *lost his way* in a wood, but who with unusual energy strives to reach the open in one direction or another, will sometimes discover a new path which nobody knew previously, —thus arise geniuses, who are credited with originality. It has already been said that mutilation, crippling, or the loss of some important organ, is frequently the cause of the unusual development of another organ, because this one has to fulfil its own and also another function. This explains the source of many a brilliant talent. These general remarks on the origin of genius may be applied to the special case, the origin of the perfect free spirit.

232.

CONJECTURE AS TO THE ORIGIN OF FREE-SPIRITISM.—Just as the glaciers increase when in equatorial regions the sun shines upon the seas with greater force than hitherto, so may a very strong and spreading free-spiritism be a proof that somewhere or other the force of feeling has grown extraordinarily.

233.

THE VOICE OF HISTORY.—In general, history *appears* to teach the following about the production of genius : it ill-treats and torments mankind—calls to the passions of envy, hatred, and rivalry—drives them to desperation, people against people, throughout whole centuries ! Then, perhaps, like a stray spark from the terrible energy thereby aroused, there flames up suddenly the light of genius ; the will, like a horse maddened by the rider's spur, thereupon breaks out and leaps over into another domain. He who could attain to a comprehension of the production of genius, and desires to carry out practically the manner in which Nature usually goes to work, would have to be just as evil and regardless as Nature itself, But perhaps we have not heard rightly.

234.

THE VALUE OF THE MIDDLE OF THE ROAD.—It is possible that the production of genius is reserved to a limited period of mankind's history. For we must not expect from the future everything that very defined conditions were able to produce ; for instance, not the astounding effects of religious feeling. This has had its day, and much that is very good can never grow again, because it could grow out of that alone. There will never again be a horizon of life and culture that is bounded by religion. Perhaps even the type of the saint is only possible with that certain narrowness of intellect, which apparently has completely disappeared. And thus the greatest height of intelligence has perhaps been reserved for a single age ; it appeared—and appears, for we are still in that age when an extraordinary, long-accumulated energy of will concentrates itself, as an exceptional case, upon *intellectual* aims. That height will no longer exist when this wildness and energy cease to be cultivated. Mankind probably approaches nearer to its actual aim in the middle of its road, in the middle time of its existence than at the end. It may be that powers with which, for instance, art is a condition, die out altogether ; the pleasure in lying, in the undefined, the

symbolical, in intoxication, in ecstasy might fall into disrepute. For certainly, when life is ordered in the perfect State, the present will provide no more motive for poetry, and it would only be those persons who had remained behind who would ask for poetical unreality. These, then, would assuredly look longingly backwards to the times of the imperfect State, of half-barbaric society, to our times.

235.

GENIUS AND THE IDEAL STATE IN CONFLICT.—The Socialists demand a comfortable life for the greatest possible number. If the lasting house of this life of comfort, the perfect State, had really been attained, then this life of comfort would have destroyed the ground out of which grow the great intellect and the mighty individual generally, I mean powerful energy. Were this State reached, mankind would have grown too weary to be still capable of producing genius. Must we not hence wish that life should retain its forcible character, and that wild forces and energies should continue to be called forth afresh ? But warm and sympathetic hearts desire precisely the *removal* of that wild and forcible character, and the warmest hearts we can imagine desire it the most passionately of all, whilst all the time its passion derived its fire, its warmth, its very existence precisely from that wild and forcible character ; the warmest heart, therefore, desires the removal of its own foundation, the destruction of itself,—that is, it desires something illogical, it is not intelligent. The highest intelligence and the warmest heart cannot exist together in one person, and the wise man who passes judgment upon life looks beyond goodness and only regards it as something which is not without value in the general summing-up of life. The wise man must *oppose* those digressive wishes of unintelligent goodness, because he has an interest in the continuance of his type and in the eventual appearance of the highest intellect ; at least, he will not advance the founding of the " perfect State," inasmuch as there is only room in it for wearied individuals. Christ, on the contrary, he whom we may consider to have had the warmest heart, advanced the process of making man stupid, placed himself on the side of the intellectually poor, and retarded the production of the greatest intellect, and this was consistent. His opposite, the man of perfect wisdom,—this may be safely prophesied—will just as necessarily hinder the production of a Christ. The State is a wise arrangement for the protection of one individual against another ; if its ennobling is exaggerated the individual will at last be weakened by it, even effaced, —thus the original purpose of the State will be most completely frustrated.

236.

THE ZONES OF CULTURE.—It may be figuratively said that the ages of culture correspond to the zones of the various climates, only that they lie one behind another and not beside each other like the geographical zones. In comparison with the temperate zone of culture, which it is our object to enter, the past, speaking generally, gives the impression of a *tropical climate*. Violent contrasts, sudden changes between day and night, heat and colour-splendour, the reverence of all that was sudden, mysterious, terrible, the rapidity with which storms broke : everywhere that lavish abundance of the provisions of nature ; and opposed to this, in our culture, a clear but by no means bright sky, pure but fairly unchanging air, sharpness, even cold at times ; thus the two zones are contrasts to each other. When we see how in that former zone the most raging passions are suppressed and broken down with mysterious force by metaphysical representations, we feel as if wild tigers were being crushed before our very eyes in the coils of mighty serpents ; our mental climate lacks such episodes, our imagination is temperate, even in dreams there does not happen to us what former peoples saw waking. But should we not rejoice at this change, even granted that artists are essentially spoiled by the disappearance of the tropical culture and find us non-artists a little too timid ? In so far artists are certainly right to deny " progress," for indeed it is doubtful whether the last three thousand years show an advance in the arts. In the same way, a metaphysical philosopher like Schopenhauer would have no cause to acknowledge progress with a regard to metaphysical philosophy and religion if he glanced back over the last four thousand years. For us, however, the *existence* even of the temperate zones of culture is progress.

237.

RENAISSANCE AND REFORMATION.—The Italian Renaissance contained within itself all the positive forces to which we owe modern culture. Such were the liberation of thought, the disregard of authorities, the triumph of education over the darkness of tradition, enthusiasm for science and the scientific past of mankind, the unfettering of

the Individual, an ardour for truthfulness and a dislike of delusion and mere effect (which ardour blazed forth in an entire company of artistic characters, who with the greatest moral purity required from themselves perfection in their works, and nothing but perfection) ; yes, the Renaissance had positive forces, which have, *as yet*, never become so mighty again in our modern culture. It was the Golden Age of the last thousand years, in spite of all its blemishes and vices. On the other hand, the German Reformation stands out as an energetic protest of antiquated spirits, who were by no means tired of mediaeval views of life, and who received the signs of its dissolution, the extraordinary flatness and alienation of the religious life, with deep dejection instead of with the rejoicing that would have been seemly. With their northern strength and stiff-neckedness they threw mankind back again, brought about the counter-reformation, that is, a Catholic Christianity of self-defence, with all the violences of a state of siege, and delayed for two or three centuries the complete awakening and mastery of the sciences ; just as they probably made for ever impossible the complete inter-growth of the antique and the modern spirit. The great task of the Renaissance could not be brought to a termination, this was prevented by the protest of the contemporary backward German spirit (which, for its salvation, had had sufficient sense in the Middle Ages to cross the Alps again and again). It was the chance of an extraordinary constellation of politics that Luther was preserved, and that his protest gained strength, for the Emperor protected him in order to employ him as a weapon against the Pope, and in the same way he was secretly favoured by the Pope in order to use the Protestant princes as a counter-weight against the Emperor. Without this curious counter-play of intentions, Luther would have been burnt like Huss,—and the morning sun of enlightenment would probably have risen somewhat earlier, and with a splendour more beautiful than we can now imagine.

238.

JUSTICE AGAINST THE BECOMING GOD.—When the entire history of culture unfolds itself to our gaze, as a confusion of evil and noble, of true and false ideas, and we feel almost seasick at the sight of these tumultuous waves, we then understand what comfort resides in the conception of a *becoming God*. This Deity is unveiled ever more and more throughout the changes and fortunes of mankind ; it is not all blind mechanism, a senseless and aimless confusion of forces. The deification of the process of being is a metaphysical outlook, seen as from a lighthouse overlooking the sea of history, in which a far-too historical generation of scholars found their comfort. This must not arouse anger, however erroneous the view may be. Only those who, like Schopenhauer, deny development also feel none of the misery of this historical wave, and therefore, because they know nothing of that becoming God and the need of His supposition, they should in justice withhold their scorn.

239.

THE FRUITS ACCORDING TO THEIR SEASONS.—Every better future that is desired for mankind is necessarily in many respects also a worse future, for it is foolishness to suppose that a new, higher grade of humanity will combine in itself all the good points of former grades, and must produce, for instance, the highest form of art. Rather has every season its own advantages and charms, which exclude those of the other seasons. That which has grown out of religion and in its neighbourhood cannot grow again if this has been destroyed ; at the most, straggling and belated off-shoots may lead to deception on that point, like the occasional out-breaks of remembrance of the old art, a condition that probably betrays the feeling of loss and deprivation, but which is no proof of the power from which a new art might be born.

240.

THE INCREASING SEVERITY OF THE WORLD.—The higher culture an individual attains, the less field there is left for mockery and scorn. Voltaire thanked Heaven from his heart for the invention of marriage and the Church, by which it had so well provided for our cheer. But he and his time, and before him the sixteenth century, had exhausted their ridicule on this theme ; everything that is now made fun of on this theme is out of date, and above all too cheap to tempt a purchaser. Causes are now inquired after ; ours is an age of seriousness. Who cares now to discern, laughingly, the difference between reality and pretentious sham, between that which man *is* and that which he wishes to represent ; the feeling of this contrast has quite a different effect if we seek reasons. The more thoroughly any one

understands life, the less he will mock, though finally, perhaps, he will mock at the " thoroughness of his understanding."

241.

THE GENIUS OF CULTURE.—If any one wished to imagine a genius of culture, what would it be like? It handles as its tools falsehood, force, and thoughtless selfishness so surely that it could only be called an evil, demoniacal being ; but its aims, which are occasionally transparent, are great and good. It is a centaur, half-beast, half-man, and, in addition, has angel's wings upon its head.

242.

THE MIRACLE-EDUCATION.—Interest in Education will acquire great strength only from the moment when belief in a God and His care is renounced, just as the art of healing could only flourish when the belief in miracle-cures ceased. So far, however, there is universal belief in the miracle-education ; out of the greatest disorder and confusion of aims and unfavourableness of conditions, the most fertile and mighty men have been seen to grow ; could this happen naturally ? Soon these cases will be more closely looked into, more carefully examined ; but miracles will never be discovered. In similar circumstances countless persons perish constantly ; the few saved have, therefore, usually grown stronger, because they endured these bad conditions by virtue of an inexhaustible inborn strength, and this strength they had also exercised and increased by fighting against these circumstances ; thus the miracle is explained. An education that no longer believes in miracles must pay attention to three things : first, how much energy is inherited? secondly, by what means can new energy be aroused ? thirdly, how can the individual be adapted to so many and manifold claims of culture without being disquieted and destroying his personality, in short, how can the individual be initiated into the counterpoint of private and public culture, how can he lead the melody and at the same time accompany it?

243.

THE FUTURE OF THE PHYSICIAN.—There is now no profession which would admit of such an enhancement as that of the physician ; that is, after the spiritual physicians the so-called pastors, are no longer allowed to practise their conjuring tricks to public applause, and a cultured person gets out of their way. The highest mental development of a physician has not yet been reached, even if he understands the best and newest methods, is practised in them, and knows how to draw those rapid conclusions from effects to causes for which the diagnostics are celebrated ; besides this, he must possess a gift of eloquence that adapts itself to every individual and draws his heart out of his body; a manliness, the sight of which alone drives away all despondency (the canker of all sick people), the tact and suppleness of a diplomatist in negotiations between such as have need of joy for their recovery and such as, for reasons of health, must (and can) give joy ; the acuteness of a detective and an attorney to divine the secrets of a soul without betraying them,—in short, a good physician now has need of all the artifices and artistic privileges of every other professional class. Thus equipped, he is then ready to be a benefactor to the whole of society, by increasing good works, mental joys and fertility, by preventing evil thoughts, projects and villainies (the evil source of which is so often the belly), by the restoration of a mental and physical aristocracy (as a maker and hinderer of marriages), by judiciously checking all so-called soul-torments and pricks of conscience. Thus from a " medicine man " he becomes a saviour, and yet need work no miracle, neither is he obliged to let himself be crucified.

244.

IN THE NEIGHBOURHOOD OF INSANITY.—The sum of sensations, knowledge and experiences, the whole burden of culture, therefore, has become so great that an overstraining of nerves and powers of thought is a common danger, indeed the cultivated classes of European countries are throughout neurotic, and almost every one of their great families is on the verge of insanity in one of their branches. True, health is now sought in every possible way; but in the main a diminution of that tension of feeling, of that oppressive burden of culture, is needful, which, even though it might be bought at a heavy sacrifice, would at least give us room for the great hope of a *new Renaissance*. To Christianity, to the philosophers, poets, and musicians we owe an abundance of deeply emotional sensations ; in order that these may not get beyond our control we must invoke the spirit of science, which on the whole makes us

somewhat colder and more sceptical, and in particular cools the faith in final and absolute truths; it is chiefly through Christianity that it has grown so wild.

245.

THE BELL-FOUNDING OF CULTURE.—Culture has been made like a bell, within a covering of coarser, commoner material, falsehood, violence, the boundless extension of every individual " I," of every separate people this was the covering. Is it time to take it off? Has the liquid set, have the good and useful impulses, the habits of the nobler nature become so certain and so general that they no longer require to lean on metaphysics and the errors of religion, no longer have need of hardnesses and violence as powerful bonds between man and man, people and people ? No sign from any God can any longer help us to answer this question ; our own insight must decide. The earthly rule of man must be taken in hand by man himself, his " omniscience " must watch over the further fate of culture with a sharp eye.

246.

THE CYCLOPES OF CULTURE.—Whoever has seen those furrowed basins which once contained glaciers, will hardly deem it possible that a time will come when the same spot will be a valley of woods and meadows and streams. It is the same in the history of mankind ; the wildest forces break the way, destructively at first, but their activity was nevertheless necessary in order that later on a milder civilisation might build up its house. These terrible energies—that which is called Evil—are the cyclopic architects and road-makers of humanity.

247.

THE CIRCULATION OF HUMANITY.—It is possible that all humanity is only a phase of development of a certain species of animal of limited duration. Man may have grown out of the ape and will return to the ape again, ^[18] without anybody taking an interest in the ending of this curious comedy. Just as with the decline of Roman civilisation and its most important cause, the spread of Christianity, there was a general uglification of man within the Roman Empire, so, through the eventual decline of general culture, there might result a far greater uglification and finally an animalising of man till he reached the ape. But just because we are able to face this prospect, we shall perhaps be able to avert such an end.

248.

THE CONSOLING SPEECH OF A DESPERATE ADVANCE.—Our age gives the impression of an intermediate condition ; the old ways of regarding the world, the old cultures still partially exist, the new are not yet sure and customary and hence are without decision and consistency. It appears as if everything would become chaotic, as if the old were being lost, the new worthless and ever becoming weaker. But this is what the soldier feels who is learning to march ; for a time he is more uncertain and awkward, because his muscles are moved sometimes according to the old system and sometimes according to the new, and neither gains a decisive victory. We waver, but it is necessary not to lose courage and give up what we have newly gained. Moreover, we *cannot* go back to the old, we *have* burnt our boats ; there remains nothing but to be brave whatever happen.—*March ahead*, only get forward ! Perhaps our behaviour looks like *progress* ; but if not, then the words of Frederick the Great may also be applied to us, and indeed as a consolation : "*Ah, mon cher Sulzer, vous ne connaissez pas assez cette race maudite á laquelle nous appartenons?*"

249.

SUFFERING FROM PAST CULTURE.—Whoever has solved the problem of culture suffers from a feeling similar to that of one who has inherited unjustly-gotten riches, or of a prince who reigns thanks to the violence of his ancestors. He thinks of their origin with grief and is often ashamed, often irritable. The whole sum of strength, joy, vigour, which he devotes to his possessions, is often balanced by a deep weariness, he cannot forget their origin. He looks despondingly at the future ; he knows well that his successors will suffer from the past as he does.

250.

MANNERS.—Good manners disappear in proportion as the influence of a Court and an exclusive aristocracy lessens; this decrease can be plainly observed from decade to decade by those who have an eye for public behaviour, which grows visibly more vulgar. No one any longer knows how to court and flatter intelligently ; hence arises the ludicrous fact that in cases where we *must* render actual homage (to a great statesman or artist, for instance), the words of deepest feeling, of simple, peasant-like honesty, have to be borrowed, owing to the embarrassment resulting from the lack of grace and wit. Thus the public ceremonious meeting of men appears ever more clumsy, but more full of feeling and honesty without really being so. But must there always be a decline in manners ? It appears to me, rather, that manners take a deep curve and that we are approaching their lowest point. When society has become sure of its intentions and principles, so that they have a moulding effect (the manners we have learnt from former moulding conditions are now inherited and always more weakly learnt), there will then be company manners, gestures and social expressions, which must appear as necessary and simply natural because they are intentions and principles. The better division of time and work, the gymnastic exercise transformed into the accompaniment of all beautiful leisure, increased and severer meditation, which brings wisdom and suppleness even to the body, will bring all this in its train. Here, indeed, we might think with a smile of our scholars, and consider whether, as a matter of fact, they who wish to be regarded as the forerunners of that new culture are distinguished by their better manners? This is hardly the case ; although their spirit may be willing enough their flesh is weak. The past of culture is still too powerful in their muscles, they still stand in a fettered position, and are half worldly priests and half dependent educators of the upper classes, and besides this they have been rendered crippled and life-less by the pedantry of science and by antiquated, spiritless methods. In any case, therefore, they are physically, and often three-fourths mentally, still the courtiers of an old, even antiquated culture, and as such are themselves antiquated ; the new spirit that occasionally inhabits these old dwellings often serves only to make them more uncertain and frightened. In them there dwell the ghosts of the past as well as the ghosts of the future ; what wonder if they do not wear the best expression or show the most pleasing behaviour ?

251.

THE FUTURE OF SCIENCE.—To him who works and seeks in her, Science gives much pleasure,—to him who *learns* her facts, very little. But as all important truths of science must gradually become commonplace and everyday matters, even this small amount of pleasure ceases, just as we have long ceased to take pleasure in learning the admirable multiplication table. Now if Science goes on giving less pleasure in herself, and always takes more pleasure in throwing suspicion on the consolations of metaphysics, religion and art, that greatest of all sources of pleasure, to which mankind owes almost its whole humanity, becomes impoverished. Therefore a higher culture must give man a double brain, two brain -chambers, so to speak, one to feel science and the other to feel non-science, which can lie side by side, without confusion, divisible, exclusive ; this is a necessity of health. In one part lies the source of strength, in the other lies the regulator ; it must be heated with illusions, onesidednesses, passions ; and the malicious and dangerous consequences of over-heating must be averted by the help of conscious Science. If this necessity of the higher culture is not satisfied, the further course of human development can almost certainly be foretold : the interest in what is true ceases as it guarantees less pleasure ; illusion, error, and imagination reconquer step by step the ancient territory, because they are united to pleasure ; the ruin of science : the relapse into barbarism is the next result ; mankind must begin to weave its web afresh after having, like Penelope, destroyed it during the night. But who will assure us that it will always find the necessary strength for this ?

252.

THE PLEASURE IN DISCERNMENT.—Why is discernment, that essence of the searcher and the philosopher, connected with pleasure? Firstly, and above all, because thereby we become conscious of our strength, for the same reason that gymnastic exercises, even without spectators, are enjoyable. Secondly, because in the course of knowledge we surpass older ideas and their representatives, and become, or believe ourselves to be, conquerors. Thirdly, because even a very little new knowledge exalts us above *every one*, and makes us feel we are the only ones who know the subject aright. These are the three most important reasons of the pleasure, but there are many others,

according to the nature of the discerner. A not inconsiderable index of such is given, where no one would look for it, in a passage of my parenetic work on Schopenhauer, ^[19] with the arrangement of which every experienced servant of knowledge may be satisfied, even though he might wish to dispense with the ironical touch that seems to pervade those pages. For if it be true that for the making of a scholar " a number of very human impulses and desires must be thrown together," that the scholar is indeed a very noble but not a pure metal, and " consists of a confused blending of very different impulses and attractions," the same thing may be said equally of the making and nature of the artist, the philosopher and the moral genius and whatever glorified great names there may be in that list. Everything human deserves ironical consideration with respect to its origin, therefore irony is so superfluous in the world.

253.

FIDELITY AS A PROOF OF VALIDITY.—It is a perfect sign of a sound theory if during *forty years* its originator does not mistrust it ; but I maintain that there has never yet been a philosopher who has not eventually deprecated the philosophy of his youth. Perhaps, however, he has not spoken publicly of this change of opinion, for reasons of ambition, or, what is more probable in noble natures, out of delicate consideration for his adherents.

254.

THE INCREASE OF WHAT IS INTERESTING.—In the course of higher education everything becomes interesting to man, he knows how to find the instructive side of a thing quickly and to put his finger on the place where it can fill up a gap in his ideas, or where it may verify a thought. Through this boredom disappears more and more, and so does excessive excitability of temperament. Finally he moves among men like a botanist among plants, and looks upon himself as a phenomenon, which only greatly excites his discerning instinct.

255

THE SUPERSTITION OF THE SIMULTANEOUS.—Simultaneous things hold together, it is said. A relative dies far away, and at the same time we dream about him,—Consequently ! But countless relatives die and we do not dream about them. It is like shipwrecked people who make vows ; afterwards, in the temples, we do not see the votive tablets of those who perished. A man dies, an owl hoots, a clock stops, all at one hour of the night,—must there not be some connection ? Such an intimacy with nature as this supposition implies is flattering to mankind. This species of superstition is found again in a refined form in historians and delineators of culture, who usually have a kind of hydrophobic horror of all that senseless mixture in which individual and national life is so rich.

256.

ACTION AND NOT KNOWLEDGE EXERCISED BY SCIENCE.—The value of strictly pursuing science for a time does not lie precisely in its results, for these, in proportion to the ocean of what is worth knowing, are but an infinitesimally small drop. But it gives an additional energy, decisiveness, and toughness of endurance ; it teaches how to attain an *aim suitably*. In so far it is very valuable, with a view to all that is done later on, to have once been a scientific man.

257.

THE YOUTHFUL CHARM OF SCIENCE.—The search for truth still retains the charm of being in strong contrast to gray and now tiresome error; but this charm is gradually disappearing. It is true we still live in the youthful age of science and are accustomed to follow truth as a lovely girl ; but how will it be when one day she becomes an elderly, ill-tempered looking woman ? In almost all sciences the fundamental knowledge is either found in earliest times or is still being sought; what a different attraction this exerts compared to that time when everything essential has been found and there only remains for the seeker a scanty gleanings (which sensation may be learnt in several historical disciplines).

258.

THE STATUE OF HUMANITY.—The genius of culture fares as did Cellini when his statue of Perseus was being cast ; the molten mass threatened to run short, but it *had* to suffice, so he flung in his plates and dishes, and whatever else his hands fell upon. In the same way genius flings in errors, vices, hopes, ravings, and other things of baser as

well as of nobler metal, for the statue of humanity must emerge and be finished ; what does it matter if commoner material is used here and there?

259.

A MALE CULTURE.—The Greek culture of the classic age is a male culture. As far as women are concerned, Pericles expresses everything in the funeral speech : " They are best when they are as little spoken of as possible amongst men." The erotic relation of men to youths was the necessary and sole preparation, to a degree unattainable to our comprehension, of all manly education (pretty much as for a long time all higher education of women was only attainable through love and marriage). All idealism of the strength of the Greek nature threw itself into that relation, and it is probable that never since have young men been treated so attentively, so lovingly, so entirely with a view to their welfare (*virtus*) as in the fifth and sixth centuries B.C. according to the beautiful saying of Holderlin : "*denn liebend giebt der Sterbliche vom Besten.*" [20] The higher the light in which this relation was regarded, the lower sank intercourse with woman ; nothing else was taken into consideration than the production of children and lust; there was no intellectual intercourse, not even real love-making. If it be further remembered that women were even excluded from contests and spectacles of every description, there only remain the religious cults as their sole higher occupation. For although in the tragedies Electra and Antigone were represented, this was only *tolerated* in art, but not liked in real life,—just as now we cannot endure anything pathetic in *life* but like it in art. The women had no other mission than to produce beautiful, strong bodies, in which the father's character lived on as unbrokenly as possible, and therewith to counteract the increasing nerve-tension of such a highly developed culture. This kept the Greek culture young for a relatively long time ; for in the Greek mothers the Greek genius always returned to nature

260.

THE PREJUDICE IN FAVOUR OF GREATNESS.—It is clear that men overvalue everything great and prominent. This arises from the conscious or unconscious idea that they deem it very useful when one person throws all his strength into one thing and makes himself into a monstrous organ. Assuredly, an *equal* development of all his powers is more useful and happier for man ; for every talent is a vampire which sucks blood and strength from other powers, and an exaggerated production can drive the most gifted almost to madness. Within the circle of the arts, too, extreme natures excite far too much attention ; but a much lower culture is necessary to be captivated by them. Men submit from habit to everything that seeks power.

261.

THE TYRANTS OF THE MIND.—It is only where the ray of myth falls that the life of the Greeks shines ; otherwise it is gloomy. The Greek philosophers are now robbing themselves of this myth ; is it not as if they wished to quit the sunshine for shadow and gloom? Yet no plant avoids the light ; and, as a matter of fact, those philosophers were only seeking a *brighter* sun ; the myth was not pure enough, not shining enough for them. They found this light in their knowledge, in that which each of them called his " truth." But in those times knowledge shone with a greater glory ; it was still young and knew but little of all the difficulties and dangers of its path ; it could still hope to reach in one single bound the central point of all being, and from thence to solve the riddle of the world. These philosophers had a firm belief in themselves and their " truth," and with it they over-threw all their neighbours and predecessors ; each one was a warlike, violent tyrant. The happiness in believing themselves the possessors of truth was perhaps never greater in the world, but neither were the "hardness, the arrogance, and the tyranny and evil of such a belief. They were tyrants, they were that, therefore, which every Greek wanted to be, and which every one was if he *was able*. Perhaps Solon alone is an exception ; he tells in his poems how he disdained personal tyranny. But he did it for love of his works, of his law-giving ; and to be a law-giver is a sublimated form of tyranny. Parmenides also made laws. Pythagoras and Empedocles probably did the same ; Anaximander founded a city. Plato was the incarnate wish to become the greatest philosophic law-giver and founder of States ; he appears to have suffered terribly over the non-fulfilment of his nature, and towards his end his soul was filled with the bitterest gall. The more the Greek philosophers lost in power the more they suffered inwardly from this bitterness and malice ;

when the various sects fought for their truths in the street, then first were the souls of these wooers of truth completely clogged through envy and spleen ; the tyrannical element then raged like poison within their bodies. These many petty tyrants would have liked to devour each other ; there survived not a single spark of love and very little joy in their own knowledge. The saying that tyrants are generally murdered and that their descendants are short-lived, is true also of the tyrants of the mind. Their history is short and violent, and their after-effects break off suddenly. It may be said of almost all great Hellenes that they appear to have come too late : it was thus with Æschylus, with Pindar, with Demosthenes, with Thucydides : one generation—and then it is passed for ever. That is the stormy and dismal element in Greek history. We now, it is true, admire the gospel of the tortoises. To think historically is almost the same thing now as if in all ages history had been made according to the theory " The smallest possible amount in the longest possible time ! " Oh ! how quickly Greek history runs on ! Since then life has never been so extravagant so unbounded. I cannot persuade myself that the history of the Greeks followed that *natural* course for which it is so celebrated. They were much too variously gifted to be *gradual* in the orderly manner of the tortoise when running a race with Achilles, and that is called natural development. The Greeks went rapidly forward, but equally rapidly downwards ; the movement of the whole machine is so intensified that a single stone thrown amid its wheels was sufficient to break it. Such a stone, for instance, was Socrates ; the hitherto so wonderfully regular, although certainly too rapid, development of the philosophical science was destroyed in one night. It is no idle question whether Plato, had he remained free from the Socratic charm, would not have discovered a still higher type of the philosophic man, which type is for ever lost to us. We look into the ages before him as into a sculptor's workshop of such types. The fifth and sixth centuries B.C. seemed to promise something more and higher even than they produced ; they stopped short at promising and announcing. And yet there is hardly a greater loss than the loss of a type, of a new, hitherto undiscovered highest *possibility of the philosophic life*. Even of the older type the greater number are badly transmitted ; it seems to me that all philosophers, from Thales to Democritus, are remarkably difficult to recognise, but whoever succeeds in imitating these figures walks amongst specimens of the mightiest and purest type. This ability is certainly rare, it was even absent in those later Greeks, who occupied themselves with the knowledge of the older philosophy ; Aristotle, especially, hardly seems to have had eyes in his head when he stands before these great ones. And thus it appears as if these splendid philosophers had lived in vain, or as if they had only been intended to prepare the quarrelsome and talkative followers of the Socratic schools. As I have said, here is a gap, a break in development ; some great misfortune must have happened, and the only statue which might have revealed the meaning and purpose of that great artistic training was either broken or unsuccessful; what actually happened has remained for ever a secret of the workshop.

That which happened amongst the Greeks—namely, that every great thinker who believed himself to be in possession of the absolute truth became a tyrant, so that even the mental history of the Greeks acquired that violent, hasty and dangerous character shown by their political history,—this type of event was not therewith exhausted, much that is similar has happened even in more modern times, although gradually becoming rarer and now but seldom showing the pure, naive conscience of the Greek philosophers. For on the whole, opposition doctrines and scepticism now speak too powerfully, too loudly. The period of mental tyranny is past. It is true that in the spheres of higher culture there must always be a supremacy, but henceforth this supremacy lies in the hands of the *oligarchs of the mind*. In spite of local and political separation they form a cohesive society, whose members *recognise and acknowledge* each other, whatever public opinion and the verdicts of review and newspaper writers who influence the masses may circulate in favour of or against them. Mental superiority, which formerly divided and embittered, nowadays generally *unites* ; how could the separate individuals assert themselves and swim through life on their own course, against all currents, if they did not see others like them living here and there under similar conditions, and grasped their hands, in the struggle as much against the ochlocratic character of the half mind and half culture as against the occasional attempts to establish a tyranny with the help of the masses ? Oligarchs are necessary to each other, they are each other's best joy, they understand their signs, but each is nevertheless free, he fights and conquers in *his* place and perishes rather than submit

HOMER.—The greatest fact in Greek culture remains this, that Homer became so early Pan-Hellenic. All mental and human freedom to which the Greeks attained is traceable to this fact. At the same time it has actually been fatal to Greek culture, for Homer levelled, inasmuch as he centralised, and dissolved the more serious instincts of independence. From time to time there arose from the depths of Hellenism an opposition to Homer ; but he always remained victorious. All great mental powers have an oppressing effect as well as a liberating one ; but it certainly makes a difference whether it is Homer or the Bible or Science that tyrannises over mankind.

263.

TALENTS.—In such a highly developed humanity as the present, each individual naturally has access to many talents. Each has an *inborn talent*, but only in a few is that degree of toughness, endurance, and energy born and trained that he really becomes a talent, *becomes* what he *is*—that is, that he discharges it in works and actions.

264.

THE WITTY PERSON EITHER OVERVALUED OR UNDERVALUED.—Unscientific but talented people value every mark of intelligence, whether it be on a true or a false track ; above all, they want the person with whom they have intercourse to entertain them with his wit, to spur them on, to inflame them, to carry them away in seriousness and play, and in any case to be a powerful amulet to protect them against boredom. Scientific natures, on the other hand, know that the gift of possessing all manner of notions should be strictly controlled by the scientific spirit: it is not that which shines, deludes and excites, but the often insignificant truth that is the fruit which he knows how to shake down from the tree of knowledge. Like Aristotle, he is not permitted to make any distinction between the "bores" and the "wits," his *dæmon* leads him through the desert as well as through tropical vegetation, in order that he may only take pleasure in the really actual, tangible, true. In insignificant scholars this produces a general disdain and suspicion of cleverness, and, on the other hand, clever people frequently have an aversion to science, as have, for instance, almost all artists.

265.

SENSE IN SCHOOL.—School has no task more important than to teach strict thought, cautious judgment, and logical conclusions, hence it must pay no attention to what hinders these operations, such as religion, for instance. It can count on the fact that human vagueness, custom, and need will later on unstring the bow of all-too-severe thought. But so long as its influence lasts it should enforce that which is the essential and distinguishing point in man : "Sense and Science, the *very highest* power of man" as Goethe judges. The great natural philosopher, Von Baer, thinks that the superiority of all Europeans, when compared to Asiatics, lies in the trained capability of giving reasons for that which they believe, of which the latter are utterly incapable. Europe went to the school of logical and critical thought, Asia still fails to know how to distinguish between truth and fiction, and is not conscious whether its convictions spring from individual observation and systematic thought or from imagination. Sense in the school has made Europe what it is ; in the Middle Ages it was on the road to become once more a part and dependent of Asia,—forfeiting, therefore, the scientific mind which it owed to the Greeks.

266.

THE UNDERVALUED EFFECT OF PUBLIC-SCHOOL TEACHING.—The value of a public school is seldom sought in those things which are really learnt there and are carried away never to be lost, but in those things which are learnt and which the pupil only acquires against his will, in order to get rid of them again as soon as possible. Every educated person acknowledges that the reading of the classics, as now practised, is a monstrous proceeding carried on before young people are ripe enough for it by teachers who with every word, often by their appearance alone, throw a mildew on a good author. But therein lies the value, generally unrecognised, of these teachers who speak *the abstract language of the higher culture*, which, though dry and difficult to understand, is yet a sort of higher gymnastics of the brain : and there is value in the constant recurrence in their language of ideas, artistic expressions, methods and allusions which the young people hardly ever hear in the conversations of their relatives and in the street. Even if the pupils only *hear*, their intellect is involuntarily trained to a scientific mode of regarding things. It is not possible to emerge from this discipline entirely untouched by its abstract character, and to remain a

simple child of nature.

267.

LEARNING MANY LANGUAGES.—The learning of many languages fills the memory with words instead of with facts and thoughts, and this is a vessel which, with every person, can only contain a certain limited amount of contents. Therefore the learning of many languages is injurious, inasmuch as it arouses a belief in possessing dexterity and, as a matter of fact, it lends a kind of delusive importance to social intercourse. It is also indirectly injurious in that it opposes the acquirement of solid knowledge and the intention to win the respect of men in an honest way. Finally, it is the axe which is laid to the root of a delicate sense of language in our mother-tongue, which thereby is incurably injured and destroyed. The two nations which produced the greatest stylists, the Greeks and the French, learned no foreign languages. But as human intercourse must always grow more cosmopolitan, and as, for instance, a good merchant in London must now be able to read and write eight languages, the learning of many tongues has certainly become a necessary evil ; but which, when finally carried to an extreme, will compel mankind to find a remedy, and in some far-off future there will be a new language, used at first as a language of commerce, then as a language of intellectual intercourse generally, then for all, as surely as some time or other there will be aviation. Why else should philology have studied the laws of languages for a whole century, and have estimated the necessary, the valuable, and the successful portion of each separate language?

268.

THE WAR HISTORY OF THE INDIVIDUAL.—In a single human life that passes through many styles of culture we find that struggle condensed which would otherwise have been played out between two generations, between father and son ; the closeness of the relationship *sharpens* this struggle, because each party ruthlessly drags in the familiar inward nature of the other party ; and thus this struggle in the single individual becomes most *embittered*; here every new phase disregards the earlier ones with cruel injustice and misunderstanding of their means and aims.

269.

A QUARTER OF AN HOUR EARLIER.—A man is found occasionally whose views are beyond his time, but only to such an extent that he anticipates the common views of the next decade. He possesses public opinion before it is public ; that is, he has fallen into the arms of a view that deserves to be trivial a quarter of an hour sooner than other people. But his fame is usually far noisier than the fame of those who are really great and prominent.

270.

THE ART OF READING.—Every strong tendency is one-sided ; it approaches the aim of the straight line and, like this, is exclusive, that is, it does not touch many other aims, as do weak parties and natures in their wave-like rolling to-and-fro ; it must also be forgiven to philologists that they are one-sided. The restoration and keeping pure of texts, besides their explanation, carried on in common for hundreds of years, has finally enabled the right methods to be found ; the whole of the Middle Ages was absolutely incapable of a strictly philological explanation, that is, of the simple desire to comprehend what an author says - it was an achievement, finding these methods, let it not be under-valued ! Through this all science first acquired continuity and steadiness, so that the art of reading rightly, which is called philology, attained its summit.

271.

THE ART OF REASONING.—The greatest advance that men have made lies in their acquisition of the art to *reason rightly*. It is not so very natural, as Schopenhauer supposes when he says, " All are capable of reasoning, but few of judging," it is learnt late and has not yet attained supremacy. False conclusions are the rule in older ages ; and the mythologies of all peoples, their magic and their superstition, their religious cult and their law are the inexhaustible sources of proof of this theory.

272.

PHASES OF INDIVIDUAL CULTURE.—The strength and weakness of mental productiveness depend far less on inherited talents than on the accompanying amount of *elasticity*. Most educated young people of thirty turn round at

this solstice of their lives and are afterwards disinclined for new mental turnings. Therefore, for the salvation of a constantly increasing culture, a new generation is immediately necessary, which will not do very much either, for in order to come up with the father's culture the son must exhaust almost all the inherited energy which the father himself possessed at that stage of life when his son was born ; with the little addition he gets further on (for as here the road is being traversed for the second time progress is a little quicker ; in order to learn that which the father knew, the son does not consume quite so much strength). Men of great elasticity, like Goethe, for instance, get through almost more than four generations in succession would be capable of; but then they advance too quickly, so that the rest of mankind only comes up with them in the next century, and even then perhaps not completely, because the exclusiveness of culture and the consecutiveness of development have been weakened by the frequent interruptions. Men catch up more quickly with the ordinary phases of intellectual culture which has been acquired in the course of history. Nowadays they begin to acquire culture as religiously inclined children, and perhaps about their tenth year these sentiments attain to their highest point, and are then changed into weakened forms (pantheism), whilst they draw near to science ; they entirely pass by God, immortality, and such-like things, but are overcome by the witchcraft of a metaphysical philosophy. Eventually they find even this unworthy of belief; art, on the contrary, seems to vouchsafe more and more, so that for a time metaphysics is metamorphosed and continues to exist either as a transition to art or as an artistically transfiguring temperament. But the scientific sense grows more imperious and conducts man to natural sciences and history, and particularly to the severest methods of knowledge, whilst art has always a milder and less exacting meaning. All this usually happens within the first thirty years of a man's life. It is the recapitulation of *pensum* for which humanity had laboured perhaps thirty thousand years.

273.

RETROGRADED, NOT LEFT BEHIND.—Whoever, in the present day, still derives his development from religious sentiments, and perhaps lives for some length of time afterwards in metaphysics and art, has assuredly gone back a considerable distance and begins his race with other modern men under unfavourable conditions ; he apparently loses time and space. But because he stays in those domains where ardour and energy are liberated and force flows continuously as a volcanic stream out of an inexhaustible source, he goes forward all the more quickly as soon as he has freed himself at the right moment from those dominators ; his feet are winged, his breast has learned quieter, longer, and more enduring breathing. He has only retreated in order to: have sufficient room to leap ; thus something terrible and threatening may lie in this retrograde movement.

274.

A PORTION OF OUR EGO AS AN ARTISTIC OBJECT.—It is a sign of superior culture consciously to retain and present a true picture of certain phases of development which commoner men live through almost thoughtlessly and then efface from the tablets of their souls: this is a higher species of the painter's art which only the few understand. For this it is necessary to isolate those phases artificially. Historical studies form the qualification for this painting, for they constantly incite us in regard to a portion of history, a people, or a human life, to imagine for ourselves a quite distinct horizon of thoughts, a certain strength of feelings, the prominence of this or the obscurity of that. Herein consists the historic sense, that out of given instances we can quickly reconstruct such systems of thoughts and feelings, just as we can mentally reconstruct a temple out of a few pillars and remains of walls accidentally left standing. The next result is that we understand our fellow-men as belonging to distinct systems and representatives of different cultures—that is, as necessary, but as changeable ; and, again, that we can separate portions of our own development and put them down independently.

275.

CYNICS AND EPICUREANS.—The cynic recognises the connection between the multiplied and stronger pains of the more highly cultivated man and the abundance of requirements ; he comprehends, therefore, that the multitude of opinions about what is beautiful, suitable, seemly and pleasing, must also produce very rich sources of enjoyment, but also of displeasure. In accordance with this view he educates himself backwards, by giving up many of these opinions and withdrawing from certain demands of culture ; he thereby gains a feeling of freedom and strength ; and

gradually, when habit has made his manner of life endurable, his sensations of displeasure are, as a matter of fact, rarer and weaker than those of cultivated people, and approach those of the domestic animal ; moreover, he experiences everything with the charm of contrast, and—he can also scold to his heart's content; so that thereby he again rises high above the sensation-range of the animal. The Epicurean has the same point of view as the cynic ; there is usually only a difference of temperament between them. Then the Epicurean makes use of his higher culture to render himself independent of prevailing opinions, he raises himself above them, whilst the cynic only remains negative. He walks, as it were, in wind-protected, well-sheltered, half-dark paths, whilst over him, in the wind, the tops of the trees rustle and show him how violently agitated is the world out there. The cynic, on the contrary, goes, as it were, naked into the rushing of the wind and hardens himself to the point of insensibility.

276.

MICROCOSM AND MACROCOSM OF CULTURE.—The best discoveries about culture man makes within himself when he finds two heterogeneous powers ruling therein. Supposing some one were living as much in love for the plastic arts or for music as he was carried away by the spirit of science, and that he were to regard it as impossible for him to end this contradiction by the destruction of one and complete liberation of the other power, there would therefore remain nothing for him to do but to erect around himself such a large edifice of culture that those two powers might both dwell within it, although at different ends, whilst between them there dwelt reconciling, intermediary powers, with predominant strength to quell, in case of need, the rising conflict. But such an edifice of culture in the single individual will bear a great resemblance to the culture of entire periods, and will afford consecutive analogical teaching concerning it. For wherever the great architecture of culture manifested itself it was its mission to compel opposing powers to agree, by means of an overwhelming accumulation of other less unbearable powers, without thereby oppressing and fettering them.

277.

HAPPINESS AND CULTURE.—We are moved at the sight of our childhood's surroundings,—the arbour, the church with its graves, the pond and the wood, all this we see again with pain. We are seized with pity for ourselves ; for what have we not passed through since then ! And everything here is so silent, so eternal, only we are so changed, so moved ; we even find a few human beings, on whom Time has sharpened his teeth no more than on an oak tree,—peasants, fishermen, woodmen—they are unchanged. Emotion and self-pity at the sight of lower culture is the sign of higher culture ; from which the conclusion may be drawn that happiness has certainly not been increased by it. Whoever wishes to reap happiness and comfort in life should always avoid higher culture.

278.

THE SIMILE OF THE DANCE.—It must now be regarded as a decisive sign of great culture if some one possesses sufficient strength and flexibility to be as pure and strict in discernment as, in other moments, to be capable of giving poetry, religion, and metaphysics a hundred paces' start and then feeling their force and beauty. Such a position amid two such different demands is very difficult, for science urges the absolute supremacy of its methods, and if this insistence is not yielded to, there arises the other danger of a weak wavering between different impulses. Meanwhile, to cast a glance, in simile at least, on a solution of this difficulty, it may be remembered that *dancing* is not the same as a dull reeling to and fro between different impulses. High culture will resemble a bold dance,—wherefore, as has been said, there is need of much strength and suppleness.

279.

OF THE RELIEVING OF LIFE.—A primary way of lightening life is the idealisation of all its occurrences ; and with the help of painting we should make it quite clear to ourselves what idealising means. The painter requires that the spectator should not observe too closely or too sharply, he forces him back to a certain distance from whence to make his observations ; he is obliged to take for granted a fixed distance of the spectator from the picture,—he must even suppose an equally certain amount of sharpness of eye in his spectator; in such things he must on no account waver. Every one, therefore, who desires to idealise his life must not look at it too closely, and must always keep his gaze at a certain distance. This was a trick that Goethe, for instance, understood.

280.

AGGRAVATION AS RELIEF, AND *VICE VERSA*.—Much that makes life more difficult in certain grades of mankind serves to lighten it in a higher grade, because such people have become familiar with greater aggravations of life. The contrary also happens ; for instance, religion has a double face, according to whether a man looks up to it to relieve him of his burden and need, or looks down upon it as upon fetters laid on him to prevent him from soaring too high into the air.

281.

THE HIGHER CULTURE is NECESSARILY MISUNDERSTOOD.—He who has strung his instrument with only two strings, like the scholars (who, besides the *instinct of knowledge* possess only an acquired *religious* instinct), does not understand people who can play upon more strings. It lies in the nature of the higher, *many-stringed* culture that it should always be falsely interpreted by the lower; an example of this is when art appears as a disguised form of the religious. People who are only religious understand even science as a searching after the religious sentiment, just as deaf mutes do not know what music is, unless it be visible movement.

282.

LAMENTATION.—It is, perhaps, the advantages of our epoch that bring with them a backward movement and an occasional undervaluing of the *vita contemplativa*. But it must be acknowledged that our time is poor in the matter of great moralists, that Pascal, Epictetus, Seneca, and Plutarch are now but little read, that work and industry—formerly in the following of the great goddess Health—sometimes appear to rage like a disease. Because time to think and tranquillity in thought are lacking, we no longer ponder over different views, but content ourselves with hating them. With the enormous acceleration of life, mind and eye grow accustomed to a partial and false sight and judgment, and all people are like travellers whose only acquaintance with countries and nations is derived from the railway. An independent and cautious attitude of knowledge is looked upon almost as a kind of madness ; the free spirit is brought into disrepute, chiefly through scholars, who miss their thoroughness and ant-like industry in his art of regarding things and would gladly banish him into one single corner of science, while it has the different and higher mission of commanding the battalion rear-guard of scientific and learned men from an isolated position, and showing them the ways and aims of culture. A song of lamentation such as that which has just been sung will probably have its own period, and will cease of its own accord on a forcible return of the genius of meditation.

283.

THE CHIEF DEFICIENCY OF ACTIVE PEOPLE.—Active people are usually deficient in the higher activity, I mean individual activity. They are active as officials, merchants, scholars, that is as a species, but not as quite distinct separate and *single* individuals ; in this respect they are idle. It is the misfortune of the active that their activity is almost always a little senseless. For instance, we must not ask the money-making banker the reason of his restless activity, it is foolish. The active roll as the stone rolls, according to the stupidity of mechanics. All mankind is divided, as it was at all times and is still, into slaves and freemen ; for whoever has not two-thirds of his day for himself is a slave, be he otherwise whatever he likes, statesman, merchant, official, or scholar.

284.

IN FAVOUR OF THE IDLE.— As a sign that the value of a contemplative life has decreased, scholars now vie with active people in a sort of hurried enjoyment, so that they appear to value this mode of enjoying more than that which really pertains to them, and which, as a matter of fact, is a far greater enjoyment. Scholars are ashamed of *otium*. But there is one noble thing about idleness and idlers. If idleness is really the *beginning* of all vice, it finds itself, therefore, at least in near neighbourhood of all the virtues ; the idle man is still a better man than the active. You do not suppose that in speaking of idleness and idlers I am alluding to you, you sluggards ?

285.

MODERN UNREST.—Modern restlessness increases towards the west, so that Americans look upon the inhabitants of Europe as altogether peace-loving and enjoying beings, whilst in reality they swarm about like wasps and bees.

This restlessness is so great that the higher culture cannot mature its fruits, it is as if the seasons followed each other too quickly. For lack of rest our civilisation is turning into a new barbarism. At no period have the active, that is, the restless, been of *more* importance. One of the necessary corrections, therefore, which must be undertaken in the character of humanity is to strengthen the contemplative element on a large scale. But every individual who is quiet and steady in heart and head already has the right to believe that he possesses not only a good temperament, but also a generally useful virtue, and even fulfils a higher mission by the preservation of this virtue.

286.

TO WHAT EXTENT THE ACTIVE MAN IS LAZY.—I believe that every one must have his own opinion about everything concerning which opinions are possible, because he himself is a peculiar, unique thing, which assumes towards all other things a new and never hitherto existing attitude. But idleness, which lies at the bottom of the active man's soul, prevents him from drawing water out of his own well. Freedom of opinion is like health ; both are individual, and no good general conception can be set up of either of them. That which is necessary for the health of one individual is the cause of disease in another, and many means and ways to the freedom of the spirit are for more highly developed natures the ways and means to confinement.

287.

CENSOR VITÆ—Alternations of love and hatred for a long period distinguish the inward condition of a man who desires to be free in his judgment of life ; he does not forget, and bears everything a grudge, for good and evil. At last, when the whole tablet of his soul is written full of experiences, he will not hate and despise existence, neither will he love it, but will regard it sometimes with a joyful, sometimes with a sorrowful eye, and, like nature, will be now in a summer and now in an autumn mood.

288.

THE SECONDARY RESULT.—Whoever earnestly desires to be free will therewith and without any compulsion lose all inclination for faults and vices ; he will also be more rarely overcome by anger and vexation. His will desires nothing more urgently than to discern, and the means to do this, that is, the permanent condition in which he is best able to discern.

289.

THE VALUE OF DISEASE.—The man who is bed-ridden often perceives that he is usually ill of his position, business, or society, and through them has lost all self-possession. He gains this piece of knowledge from the idleness to which his illness condemns him.

290.

SENSITIVENESS IN THE COUNTRY.—If there are no firm, quiet lines on the horizon of his life, a species of mountain and forest line, man's inmost will itself becomes restless, inattentive, and covetous, as is the nature of a dweller in towns ; he has no happiness and confers no happiness.

291.

PRUDENCE OF THE FREE SPIRITS.—Free-thinkers, those who live by knowledge alone, will soon attain the supreme aim of their life and their ultimate position towards society and State, and will gladly content themselves, for instance, with a small post or an income that is just sufficient to enable them to live ; for they will arrange to live in such a manner that a great change of outward prosperity, even an overthrow of the political order, would not cause an overthrow of their life. To all these things they devote as little energy as possible in order that with their whole accumulated strength, and with a long breath, they may dive into the element of knowledge. Thus they can hope to dive deep and be able to see the bottom. Such a spirit seizes only the point of an event, he does not care for things in the whole breadth and prolixity of their folds, for he does not wish to entangle himself in them. He, too, knows the weekdays of restraint, of dependence and servitude. But from time to time there must dawn for him a Sunday of liberty, otherwise he could not endure life. It is probable that even his love for humanity will be prudent and somewhat short-winded, for he desires to meddle with the world of inclinations and of blindness only as far as is

necessary for the purpose of knowledge. He must trust that the genius of justice will say something for its disciple and protégé if accusing voices were to call him poor in love. In his mode of life and thought there is a *refined heroism*, which scorns to offer itself to the great mob-reverence, as its coarser brother does, and passes quietly through and out, of the world. Whatever labyrinths it traverses, beneath whatever rocks its stream has occasionally worked its way—when it reaches the light it goes clearly, easily, and almost noiselessly on its way, and lets the sunshine strike down to its very bottom.

292.

FORWARD.— And thus forward upon the path of wisdom, with a firm step and good confidence ! However you may be situated, serve yourself as a source of experience ! Throw off the displeasure at your nature, forgive yourself your own individuality, for in any case you have in yourself a ladder with a hundred steps upon which you can mount to knowledge. The age into which with grief you feel yourself thrown thinks you happy because of this good fortune ; it calls out to you that you shall still have experiences which men of later ages will perhaps be obliged to forego. Do not despise the fact of having been religious ; consider fully how you have had a genuine access to art. Can you not, with the help of these experiences, follow immense stretches of former humanity with a clearer understanding ? Is not that ground which sometimes displeases you so greatly, that ground of clouded thought, precisely the one upon which have grown many of the most glorious fruits of older civilisations ? You must have loved religion and art as you loved mother and nurse,—otherwise you cannot be wise. But you must be able to see beyond them, to outgrow them ; if you remain under their ban you do not understand them. You must also be familiar with history and that cautious play with the balances : " On the one hand—on the other hand." Go back, treading in the footsteps made by mankind in its great and painful journey through the desert of the past, and you will learn most surely whither it is that all later humanity never can or may go again. And inasmuch as you wish with all your strength to see in advance how the knots of the future are tied, your own life acquires the value of an instrument and means of knowledge. It is within your power to see that all you have experienced, trials, errors, faults, deceptions, passions, your love and your hope, shall be merged wholly in your aim. This aim is to become a necessary chain of culture-links yourself, and from this necessity to draw a conclusion as to the necessity in the progress of general culture. When your sight has become strong enough to see to the bottom of the dark well of your nature and your knowledge, it is possible that in its mirror you may also behold the far-away visions of future civilisations. Do you think that such a life with such an aim is too wearisome, too empty of all that is agreeable ? Then you have still to learn that no honey is sweeter than that of knowledge, and that the overhanging clouds of trouble must be to you as an udder from which you shall draw milk for your refreshment. And only when old age approaches will you rightly perceive how you listened to the voice of nature, that nature which rules the whole world through pleasure ; the same life which has its zenith in age has also its zenith in wisdom, in that mild sunshine of a constant mental joyfulness ; you meet them both, old age and wisdom, upon one ridge of life, it was thus intended by Nature. Then it is time, and no cause for anger, that the mists of death approach. Towards the light is your last movement ; a joyful cry of knowledge is your last sound.

SIXTH DIVISION - Man In Society.

293.

WELL-MEANT DISSIMULATION.—In intercourse with men a well-meant dissimulation is often necessary, as if we did not see through the motives of their actions.

294.

COPIES.—We not unfrequently meet with copies of prominent persons ; and as in the case of pictures, so also here, the copies please more than the originals.

295.

THE PUBLIC SPEAKER.—One may speak with the greatest appropriateness, and yet so that everybody cries out to the contrary, that is to say, when one does not speak to everybody.

296.

WANT OF CONFIDENCE.—Want of confidence among friends is a fault that cannot be censured without becoming incurable.

297.

THE ART OF GIVING.—To have to refuse a gift, merely because it has not been offered in the right way, provokes animosity against the giver.

298.

THE MOST DANGEROUS PARTISAN.—In every party there is one who, by his far too dogmatic expression of the party-principles, excites defection among the others.

299.

ADVISERS OF THE SICK.—Whoever gives advice to a sick person acquires a feeling of superiority over him, whether the advice be accepted or rejected. Hence proud and sensitive sick persons hate advisers more than their sickness.

300.

DOUBLE NATURE OF EQUALITY.—The rage for equality may so manifest itself that we seek either to draw all others down to ourselves (by belittling, disregarding, and tripping up), or ourselves and all others upwards (by recognition, assistance, and congratulation).

301.

AGAINST EMBARRASSMENT.—The best way to relieve and calm very embarrassed people is to give them decided praise.

302.

PREFERENCE FOR CERTAIN VIRTUES.—We set no special value on the possession of a virtue until we perceive that it is entirely lacking in our adversary.

303.

WHY WE CONTRADICT.—We often contradict an opinion when it is really only the tone in which it is expressed that is unsympathetic to us.

304.

CONFIDENCE AND INTIMACY.—Whoever proposes to command the intimacy of a person is usually uncertain of possessing his confidence. Whoever is sure of a person's confidence attaches little value to intimacy with him.

305.

THE EQUILIBRIUM OF FRIENDSHIP.—The right equilibrium of friendship in our relation to other men is sometimes restored when we put a few grains of wrong on our own side of the scales.

306.

THE MOST DANGEROUS PHYSICIANS.—The most dangerous physicians are those who, like born actors, imitate the born physician with the perfect art of imposture,

307.

WHEN PARADOXES ARE PERMISSIBLE.—In order to interest clever persons in a theory, it is sometimes only necessary to put it before them in the form of a prodigious paradox.

308.

HOW COURAGEOUS PEOPLE ARE WON OVER.—Courageous people are persuaded to a course of action by representing it as more dangerous than it really is.

309.

COURTESIES— We regard the courtesies shown us by unpopular persons as offences.

310.

KEEPING PEOPLE WAITING.—A sure way of exasperating people and of putting bad thoughts into their heads is to keep them waiting long. That makes them immoral.

311.

AGAINST THE CONFIDENTIAL.—Persons who give us their full confidence think they have thereby a right to ours. That is a mistake; people acquire no right through gifts.

312.

A MODE OF SETTLEMENT.—It often suffices to give a person whom we have injured an opportunity to make a joke about us to give him personal satisfaction, and even to make him favourably disposed to us.

313.

THE VANITY OF THE TONGUE.—Whether man conceals his bad qualities and vices, or frankly acknowledges them, his vanity in either case seeks its advantage thereby, only let it be observed how nicely he distinguishes those from whom he conceals such qualities from those with whom he is frank and honest.

314.

CONSIDERATE.—To have no wish to offend or injure any one may as well be the sign of a just as of a timid nature.

315.

REQUISITE FOR DISPUTATION.—He who cannot put his thoughts on ice should not enter into the heat of dispute.

316.

INTERCOURSE AND PRETENSION.—We forget our pretensions when we are always conscious of being amongst meritorious people; being alone implants presumption in us. The young are pretentious, for they associate with their equals, who are all ciphers but would fain have a great significance.

317.

MOTIVES OF AN ATTACK.—One does not attack a person merely to hurt and conquer him, but perhaps merely to become conscious of one's own strength.

318.

FLATTERY.—Persons who try by means of flattery to put us off our guard in intercourse with them, employ a dangerous expedient, like a sleeping-draught, which, when it does not send the patient to sleep, keeps him all the wider awake.

319.

A GOOD LETTER-WRITER.—A person who does not write books, thinks much, and lives in unsatisfying society, will usually be a good letter-writer.

320.

THE UGLIEST OF ALL.—It may be doubted whether a person who has travelled much has found anywhere in the world uglier places than those to be met with in the human face.

321.

THE SYMPATHETIC ONES.—Sympathetic natures, ever ready to help in misfortune, are seldom those that participate in joy; in the happiness of others they have nothing to occupy them, they are superfluous, they do not feel themselves in possession of their superiority, and hence readily show their displeasure.

322.

THE RELATIVES OF A SUICIDE.—The relatives of a suicide take it in ill part that he did not remain alive out of consideration for their reputation.

323.

INGRATITUDE FORESEEN.—He who makes a large gift gets no gratitude ; for the recipient is already overburdened by the acceptance of the gift.

324.

IN DULL SOCIETY.—Nobody thanks a witty man for politeness when he puts himself on a par with a society in which it would not be polite to show one's wit.

325.

THE PRESENCE OF WITNESSES.—We are doubly willing to jump into the water after some one who has fallen in, if there are people present who have not the courage to do so.

326.

BEING SILENT.—For both parties in a controversy, the most disagreeable way of retaliating is to be vexed and silent; for the aggressor usually regards the silence as a sign of contempt.

327.

FRIENDS' SECRETS.—Few people will not expose the private affairs of their friends when at a loss for a subject of conversation.

328.

HUMANITY.—The humanity of intellectual celebrities consists in courteously submitting to unfairness in intercourse with those who are not celebrated.

329.

THE EMBARRASSED.—People who do not feel sure of themselves in society seize every opportunity of publicly showing their superiority to close friends, for instance by teasing them.

330.

THANKS.—A refined nature is vexed by knowing that some one owes it thanks, a coarse nature by knowing that it owes thanks to some one.

331.

A SIGN OF ESTRANGEMENT.—The surest sign of the estrangement of the opinions of two persons is when they both say something ironical to each other and neither of them feels the irony.

332.

PRESUMPTION IN CONNECTION WITH MERIT.—Presumption in connection with merit offends us even more than presumption in persons devoid of merit, for merit in itself offends us.

333.

DANGER IN THE VOICE.—In conversation we are sometimes confused by the tone of our own voice, and misled to make assertions that do not at all correspond to our opinions.

334.

IN CONVERSATION.—Whether in conversation with others we mostly agree or mostly disagree with them is a matter of habit ; there is sense in both cases.

335.

FEAR OF OUR NEIGHBOUR.—We are afraid of the animosity of our neighbour, because we are apprehensive that he may thereby discover our secrets.

336.

DISTINGUISHING BY BLAMING.—Highly respected persons distribute even their blame in such fashion that they try to distinguish us there-with. It is intended to remind us of their serious interest in us. We misunderstand them entirely when we take their blame literally and protest against it ; we thereby offend them and estrange ourselves from them.

337.

INDIGNATION AT THE GOODWILL OF OTHERS.—We are mistaken as to the extent to which we think we are hated or feared ; because, though we ourselves know very well the extent of our divergence from a person, tendency, or party, those others know us only superficially, and can, therefore, only hate us superficially. We often meet with goodwill which is inexplicable to us; but when we comprehend it, it shocks us, because it shows that we are not considered with sufficient seriousness or importance.

338.

THWARTING VANITIES.—When two persons meet whose vanity is equally great, they have afterwards a bad impression of each other; because each has been so occupied with the impression he wished to produce on the other that the other has made no impression upon him ; at last it becomes clear to them both that their efforts have been in vain, and each puts the blame on the other.

339.

IMPROPER BEHAVIOUR AS A GOOD SIGN.—A superior mind takes pleasure in the tactlessness, pretentiousness, and even hostility of ambitious youths ; it is the vicious habit of fiery horses which have not yet carried a rider, but, in a short time, will be so proud to carry one.

340.

WHEN IT IS ADVISABLE TO SUFFER WRONG.—It is well to put up with accusations without refutation, even when they injure us, when the accuser would see a still greater fault on our part if we contradicted and perhaps even refuted him. In this way, certainly, a person may always be wronged and always have right on his side, and may eventually, with the best conscience in the world, become the most intolerable tyrant and tormentor ; and what happens in the individual may also take place in whole classes of society.

341.

TOO LITTLE HONOURED.—Very conceited persons, who have received less consideration than they expected, attempt for a long time to deceive themselves and others with regard to it, and become subtle psychologists in order to make out that they have been amply honoured. Should they not attain their aim, should the veil of deception be torn, they give way to all the greater fury.

342.

PRIMITIVE CONDITIONS RE-ECHOING IN SPEECH.—By the manner in which people make assertions in their intercourse we often recognise an echo of the times when they were more conversant with weapons than anything else ; sometimes they handle their assertions like sharp-shooters using their arms, sometimes we think we hear the whizz and clash of swords, and with some men an assertion crashes down like a stout cudgel. Women, on the contrary, speak like beings who for thousands of years have sat at the loom, plied the needle, or played the child with children.

343.

THE NARRATOR.—He who gives an account of something readily betrays whether it is because the fact interests him, or because he wishes to excite interest by the narration. In the latter case he will exaggerate, employ

superlatives, and such like. He then does not usually tell his story so well, because he does not think so much about his subject as about himself.

344.

THE RECITER—He who recites dramatic works makes discoveries about his own character ; he finds his voice more natural in certain moods and scenes than in others, say in the pathetic or in the scurrilous, while in ordinary life, perhaps, he has not had the opportunity to exhibit pathos or scurrility.

345.

A COMEDY SCENE IN REAL LIFE.—Some one conceives an ingenious idea on a theme in order to express it in society. Now in a comedy we should hear and see how he sets all sail for that point, and tries to land the company at the place where he can make his remark, how he continuously pushes the conversation towards the one goal, sometimes losing the way, finding it again, and finally arriving at the moment : he is almost breathless—and then one of the company takes the remark itself out of his mouth ! What will he do ? Oppose his own opinion ?

346.

UNINTENTIONALLY DISCOURTEOUS.—When a person treats another with unintentional discourtesy,—for instance, not greeting him because not recognising him,—he is vexed by it, although he cannot reproach his own sentiments ; he is hurt by the bad opinion which he has produced in the other person, or fears the consequences of his bad humour, or is pained by the thought of having injured him,—vanity, fear, or pity may therefore be aroused ; perhaps all three together.

347.

A MASTERPIECE OF TREACHERY.—To express a tantalising distrust of a fellow-conspirator, lest he should betray one, and this at the very moment when one is practising treachery one's self, is a masterpiece of wickedness ; because it absorbs the other's attention and compels him for a time to act very unsuspectingly and openly, so that the real traitor has thus acquired a free hand.

348.

TO INJURE AND TO BE INJURED.—It is far pleasanter to injure and afterwards beg for forgiveness than to be injured and grant forgiveness. He who does the former gives evidence of power and afterwards of kindness of character. The person injured, however, if he does not wish to be considered inhuman, *must* forgive; his enjoyment of the other's humiliation is insignificant on account of this constraint.

349.

IN A DISPUTE.—When we contradict another's opinion and at the same time develop our own, the constant consideration of the other opinion usually disturbs the natural attitude of our own which appears more intentional, more distinct, and perhaps somewhat exaggerated.

350.

AN ARTIFICE.—He who wants to get another to do something difficult must on no account treat the matter as a problem, but must set forth his plan plainly as the only one possible; and when the adversary's eye betrays objection and opposition he must understand how to break off quickly, and allow him no time to put in a word.

351.

PRICKS OF CONSCIENCE AFTER SOCIAL GATHERINGS.—Why does our conscience prick us after ordinary social gatherings? Because we have treated serious things lightly, because in talking of persons we have not spoken quite justly or have been silent when we should have spoken, because, sometimes, we have not jumped up and run away,—in short, because we have behaved in society as if we belonged to it.

352.

WE ARE MISJUDGED.—He who always listens to hear how he is judged is always vexed. For we are misjudged even by those who are nearest to us (" who know us best"). Even good friends sometimes vent their ill-humour in a

spiteful word ; and would they be our friends if they knew us rightly? The judgments of the indifferent wound us deeply, because they sound so impartial, so objective almost. But when we see that some one hostile to us knows us in a concealed point as well as we know ourselves, how great is then our vexation !

353.

THE TYRANNY OF THE PORTRAIT.—Artists and statesmen, who out of particular features quickly construct the whole picture of a man or an event, are mostly unjust in demanding that the event or person should afterwards be actually as they have painted it ; they demand straightway that a man should be just as gifted, cunning, and unjust as he is in their representation of him.

354.

RELATIVES AS THE BEST FRIENDS.—The Greeks, who knew so well what a friend was, they alone of all peoples have a profound and largely philosophical discussion of friendship ; so that it is by them firstly (and as yet lastly) that the problem of the friend has been recognised as worthy of solution,—these same Greeks have designated *relatives* by an expression which is the superlative of the word "friend." This is inexplicable to me.

355.

MISUNDERSTOOD HONESTY.—When any one quotes himself in conversation (" I then said," " I am accustomed to say "), it gives the impression of presumption ; whereas it often proceeds from quite an opposite source ; or at least from honesty, which does not wish to deck and adorn the present moment with wit which belongs to an earlier moment.

356.

THE PARASITE.—It denotes entire absence of a noble disposition when a person prefers to live in dependence at the expense of others, usually with a secret bitterness against them, in order only that he may not be obliged to work. Such a disposition is far more frequent in women than in men, also far more pardonable (for historical reasons).

357.

ON THE ALTAR OF RECONCILIATION.—There are circumstances under which one can only gain a point from a person by wounding him and becoming hostile ; the feeling of having a foe torments him so much that he gladly seizes the first indication of a milder disposition to effect a reconciliation, and offers on the altar of this reconciliation what was formerly of such importance to him that he would not give it up at any price.

358.

PRESUMPTION IN DEMANDING PITY.—There are people who, when they have been in a rage and have insulted others, demand, firstly, that it shall all be taken in good part ; and, secondly, that they shall be pitied because they are subject to such violent paroxysms. So far does human presumption extend.

359.

BAIT.—"Every man has his price"—that is not true. But perhaps every one can be found a bait of one kind or other at which he will snap. Thus, in order to gain some supporters for a cause, it is only necessary to give it the glamour of being philanthropic, noble, charitable, and self-denying—and to what cause could this glamour not be given ! It is the sweetmeat and dainty of *their* soul ; others have different ones.

360.

THE ATTITUDE IN PRAISING.—When good friends praise a gifted person he often appears to be delighted with them out of politeness and goodwill, but in reality he feels indifferent. His real nature is quite unmoved towards them, and will not budge a step on that account out of the sun or shade in which it lies ; but people wish to please by praise, and it would grieve them if one did not rejoice when they praise a person.

361.

THE EXPERIENCE OF SOCRATES.—If one has become a master in one thing, one has generally remained, precisely thereby, a complete dunce in most other things; but one forms the very reverse opinion, as was already

experienced by Socrates. This is the annoyance which makes association with masters disagreeable.

362.

A MEANS OF DEFENCE.—In warring against stupidity, the most just and gentle of men at last become brutal. They are thereby, perhaps, taking the proper course for defence; for the most appropriate argument for a stupid brain is the clenched fist. But because, as has been said, their character is just and gentle, they suffer more by this means of protection than they injure their opponents by it.

363.

CURIOSITY.—If curiosity did not exist, very little would be done for the good of our neighbour. But curiosity creeps into the houses of the unfortunate and the needy under the name of duty or of pity. Perhaps there is a good deal of curiosity even in the much-vaunted maternal love.

364.

DISAPPOINTMENT IN SOCIETY.—One man wishes to be interesting for his opinions, another for his likes and dislikes, a third for his acquaintances, and a fourth for his solitariness—and they all meet with disappointment. For he before whom the play is performed thinks himself the only play that is to be taken into account.

365.

THE DUEL.—It may be said in favour of duels and all affairs of honour that if a man has such susceptible feelings that he does not care to live when So-and-so says or thinks this or that about him ; he has a right to make it a question of the death of the one or the other. With regard to the fact that he is so susceptible, it is not at all to be remonstrated with, in that matter we are the heirs of the past, of its greatness as well as of its exaggerations, without which no greatness ever existed. So when there exists a code of honour which lets blood stand in place of death, so that the mind is relieved after a regular duel it is a great blessing, because otherwise many human lives would be in danger. Such an institution, moreover, teaches men to be cautious in their utterances and makes intercourse with them possible.

366.

NOBLENES AND GRATITUDE.—A noble soul will be pleased to owe gratitude, and will not anxiously avoid opportunities of coming under obligation ; it will also be moderate afterwards in the expression of its gratitude; baser souls, on the other hand, are unwilling to be under any obligation, or are afterwards immoderate in their expressions of thanks and altogether too devoted. The latter is, moreover, also the case with persons of mean origin or depressed circumstances ; to show *them* a favour seems to them a miracle of grace.

367.

OCCASIONS OF ELOQUENCE.—In order to talk well one man needs a person who is decidedly and avowedly his superior to talk to, while another can only find absolute freedom of speech and happy turns of eloquence before one who is his inferior. In both cases the cause is the same; each of them talks well only when he talks *sans gêne*—the one because in the presence of something higher he does not feel the impulse of rivalry and competition, the other because he also lacks the same impulse in the presence of something lower. Now there is quite another type of men, who talk well only when debating, with the intention of conquering. Which of the two types is the more aspiring : the one that talks well from excited ambition, or the one that talks badly or not at all from precisely the same motive ?

368.

THE TALENT FOR FRIENDSHIP.—Two types are distinguished amongst people who have a special faculty for friendship. The one is ever on the ascent, and for every phase of his development he finds a friend exactly suited to him. The series of friends which he thus acquires is seldom a consistent one, and is sometimes at variance and in contradiction, entirely in accordance with the fact that the later phases of his development neutralise or prejudice the earlier phases. Such a man may jestingly be called a *ladder*]. *The other type* is represented by him who exercises an attractive influence on very different characters and endowments, so that he wins a whole circle of friends ; these,

however, are thereby brought voluntarily into friendly relations with one another in spite of all differences. Such a man may be called a *circle*, for this homogeneousness of such different temperaments and natures must somehow be typified in him. Furthermore, the faculty for having good friends is greater in many people than the faculty for being a good friend.

369.

TACTICS IN CONVERSATION.—After a conversation with a person one is best pleased with him when one has had an opportunity of exhibiting one's intelligence and amiability in all its glory. Shrewd people who wish to impress a person favourably make use of this circumstance, they provide him with the best opportunities for making a good joke, and so on in conversation. An amusing conversation might be imagined between two very shrewd persons, each wishing to impress the other favourably, and therefore each throwing to the other the finest chances in conversation, which neither of them accepted, so that the conversation on the whole might turn out spiritless and unattractive because each assigned to the other the opportunity of being witty and charming.

370.

DISCHARGE OF INDIGNATION.—The man who meets with a failure attributes this failure rather to the ill-will of another than to fate. His irritated feelings are alleviated by thinking that a person and not a thing is the cause of his failure ; for he can revenge himself on persons, but is obliged to swallow down the injuries of fate. Therefore when anything has miscarried with a prince, those about him are accustomed to point out some individual as the ostensible cause, who is sacrificed in the interests of all the courtiers ; for otherwise the prince's indignation would vent itself on them all, as he can take no revenge on the Goddess of Destiny herself.

371.

ASSUMING THE COLOURS OF THE ENVIRONMENT.—Why are likes and dislikes so contagious that we can hardly live near a very sensitive person without being filled, like a hogshead, with his *fors* and *againsts* ? In the first place, complete forbearance of judgment is very difficult, and sometimes absolutely intolerable to our vanity; it has the same appearance as poverty of thought and sentiment, or as timidity and unmanliness ; and so we are, at least, driven on to take a side, perhaps contrary to our environment, if this attitude gives greater pleasure to our pride. As a rule, however,—and this is the second point,—we are not conscious of the transition from indifference to liking or disliking, but we gradually accustom ourselves to the sentiments of our environment, and because sympathetic agreement and acquiescence are so agreeable, we soon wear all the signs and party-colours of our surroundings.

372.

IRONY.—Irony is only permissible as a pedagogic expedient, on the part of a teacher when dealing with his pupils ; its purpose is to humble and to shame, but in the wholesome way that causes good resolutions to spring up and teaches people to show honour and gratitude, as they would to a doctor, to him who has so treated them. The ironical man pretends to be ignorant, and does it so well that the pupils conversing with him are deceived, and in their firm belief in their own superior knowledge they grow bold and expose all their weak points ; they lose their cautiousness and reveal themselves as they are,—until all of a sudden the light which they have held up to the teacher's face casts its rays back very humiliatingly upon themselves. Where such a relation, as that between teacher and pupil, does not exist, irony is a rudeness and a vulgar conceit. All ironical writers count on the silly species of human beings, who like to feel themselves superior to all others in common with the author himself, whom they look upon as the mouthpiece of their arrogance. Moreover, the habit of irony, like that of sarcasm, spoils the character ; it gradually fosters the quality of a malicious superiority ; one finally grows like a snappy dog, that has learnt to laugh as well as to bite.

373.

ARROGANCE.—There is nothing one should so guard against as the growth of the weed called arrogance, which spoils all one's good harvest ; for there is arrogance in cordiality, in showing honour, in kindly familiarity, in caressing, in friendly counsel, in acknowledgment of faults, in sympathy for others,—and all these fine things arouse

aversion when the weed in question grows up among them. The arrogant man—that is to say, he who desires to appear more than he is or *passes for*—always miscalculates. It is true that he obtains a momentary success, inasmuch as those with whom he is arrogant generally give him the amount of honour that he demands, owing to fear or for the sake of convenience ; but they take a bad revenge for it inasmuch as they subtract from the value which they hitherto attached to him just as much as he demands above that amount. There is nothing for which men ask to be paid dearer than for humiliation. The arrogant man can make his really great merit so suspicious and small in the eyes of others that they tread on it with dusty feet. If at all, we should only allow ourselves a *proud* manner where we are quite sure of not being misunderstood and considered as arrogant; as, for instance, with friends and wives. For in social intercourse there is no greater folly than to acquire a reputation for arrogance ; it is still worse than not having learnt to deceive politely.

374.

TÊTE-À-TÊTE—Private conversation is the perfect conversation, because everything the one person says receives its particular colouring, its tone, and its accompanying gestures *out of strict* consideration for the other person *engaged in the* conversation, it therefore corresponds to what takes place in intercourse by letter, viz., that one and the same person exhibits ten kinds of psychical expression, according as he writes now to this individual and now to that one. In duologue there is only a single refraction of thought; the person conversed with produces it, as the mirror in whom we want to behold our thoughts anew in their finest form. But how is it when there are two or three, or even more persons conversing with one? Conversation then necessarily loses something of its individualising subtlety, different considerations thwart and neutralise each other; the style which pleases one does not suit the taste of another. In intercourse with several individuals a person is therefore to withdraw within himself and represent facts as they are; but he has also to remove from the subjects the pulsating ether of humanity which makes conversation one of the pleasantest things in the world. Listen only to the tone in which those who mingle with whole groups of men are in the habit of speaking; it is as if the fundamental base of all speech were, "It is *myself*; I say this, so make what you will of it!" That is the reason why clever ladies usually leave a singular, painful, and forbidding impression on those who have met them in society; it is the talking to many people, before many people, that robs them of all intellectual amiability and shows only their conscious dependence on themselves, their tactics, and their intention of gaining a public victory in full light; whilst in a private conversation the same ladies become womanly again, and recover their intellectual grace and charm.

375.

POSTHUMOUS FAME.—There is sense in hoping for recognition in a distant future only when we take it for granted that mankind will remain essentially unchanged, and that whatever is great is not for one age only but will be looked upon as great for all time. But this is an error. In all their sentiments and judgments concerning what is good and beautiful mankind have greatly changed; it is mere fantasy to imagine one's self to be a mile ahead, and that the whole of mankind is coming our way. Besides, a scholar who is misjudged may at present reckon with certainty that his discovery will be made by others, and that, at best, it will be allowed to him later on by some historian that he also already knew this or that but was not in a position to secure the recognition of his knowledge. Not to be recognised is always interpreted by posterity as lack of power. In short, one should not so readily speak in favour of haughty solitude. There are, however, exceptional cases; but it is chiefly our faults, weakness, and follies that hinder the recognition of our great qualities.

376.

OF FRIENDS.—Just consider with thyself how different are the feelings, how divided are the opinions of even the nearest acquaintances; how even the same opinions in thy friend's mind have quite a different aspect and strength from what they have in thine own; and how manifold are the occasions which arise for misunderstanding and hostile severance. After all this thou wilt say to thyself, "How insecure is the ground upon which all our alliances and friendships rest, how liable to cold downpours and bad weather, how lonely is every creature!" When a person recognises this fact, and, in addition, that all opinions and the nature and strength of them in his fellowmen are just

as necessary and irresponsible as their actions ; when his eye learns to see this internal necessity of opinions, owing to the indissoluble interweaving of character, occupation, talent, and environment,—he will perhaps get rid of the bitterness and sharpness of the feeling with which the sage exclaimed, "Friends, there are no friends!" Much rather will he make the confession to himself:—Yes, there are friends, but they were drawn towards thee by error and deception concerning thy character; and they must have learnt to be silent in order to remain thy friends; for such human relationships almost always rest on the fact that some few things are never said, are never, indeed, alluded to; but if these pebbles are set rolling friendship follows afterwards and is broken. Are there any who would not be mortally injured if they were to learn what their most intimate friends really knew about them? By getting a knowledge of ourselves, and by looking upon our nature as a changing sphere of opinions and moods, and thereby learning to despise ourselves a little, we recover once more our equilibrium with the rest of mankind. It is true that we have good reason to despise each of our acquaintances, even the greatest of them; but just as good reason to turn this feeling against ourselves. And so we will bear with each other, since we bear with our selves; and perhaps there will come to each a happier hour, when he will exclaim :

"Friends, there are really no friends!" thus cried

th' expiring old sophist;

"Foes, there is really no foe!"—thus shout I,

the incarnate fool.

SEVENTH DIVISION - Wife and Child.

377.

THE PERFECT WOMAN.—The perfect woman is a higher type of humanity than the perfect man, and also something much rarer. The natural history of animals furnishes grounds in support of this theory.

378.

FRIENDSHIP AND MARRIAGE.—The best friend will probably get the best wife, because a good marriage is based on talent for friendship.

379.

THE SURVIVAL OF THE PARENTS.—The undissolved dissonances in the relation of the character and sentiments of the parents survive in the nature of the child and make up the history of its inner sufferings.

380.

INHERITED FROM THE MOTHER.—Every one bears within him an image of woman, inherited from his mother: it determines his attitude to wards women as a whole, whether to honour, despise, or remain generally indifferent to them.

381.

CORRECTING NATURE.—Whoever has not got a good father should procure one.

382.

FATHERS AND SONS.—Fathers have much to do to make amends for having sons.

383.

THE ERROR OF GENTLEWOMEN.—Gentle women think that a thing does not really exist when it is not possible to talk of it in society.

384.

A MALE DISEASE.—The surest remedy for the male disease of self-contempt is to be loved by a sensible woman.

385.

A SPECIES OF JEALOUSY.—Mothers are readily jealous of the friends of sons who are particularly successful. As a rule a mother loves *herself* in her son more than the son.

386.

RATIONAL IRRATIONALITY.—In the maturity of life and intelligence the feeling comes over a man that his father did wrong in begetting him.

387.

MATERNAL EXCELLENCE.—Some mothers need happy and honoured children, some need unhappy ones,—otherwise they cannot exhibit their maternal excellence.

388.

DIFFERENT SIGHS.—Some husbands have sighed over the elopement of their wives, the greater number, however, have sighed because nobody would elope with theirs.

389.

LOVE MATCHES.—Marriages which are contracted for love (so-called love-matches) have error for their father and need (necessity) for their mother.

390.

WOMEN'S FRIENDSHIPS.—Women can enter into friendship with a man perfectly well ; but in order to maintain it the aid of a little physical antipathy is perhaps required.

391.

ENNUI.—Many people, especially women, never feel ennui because they have never learnt to work properly.

392.

AN ELEMENT OF LOVE.—In all feminine love something of maternal love also comes to light.

393.

UNITY OF PLACE AND DRAMA.—If married couples did not live together, happy marriages would be more frequent.

394.

THE USUAL CONSEQUENCES OF MARRIAGE.—All intercourse which does not elevate a person, debases him, and *vice versa*; hence men usually sink a little when they marry, while women are somewhat elevated. Over-intellectual men require marriage in proportion as they are opposed to it as to a repugnant medicine.

395.

LEARNING TO COMMAND.—Children of unpretentious families must be taught to command, just as much as other children must be taught to obey.

396.

WANTING TO BE IN LOVE.—Betrothed couples who have been matched by convenience often exert themselves *to fall in love*, to avoid the reproach of cold, calculating expediency. In the same manner those who become converts to Christianity for their advantage exert themselves to become genuinely pious; because the religious cast of countenance then becomes easier to them.

397.

No STANDING STILL IN LOVE.—A musician who *loves* the slow *tempo* will play the same pieces ever more slowly. There is thus no standing still in any love.

398.

MODESTY.—Women's modesty usually increases with their beauty.^[21]

399.

MARRIAGE ON A GOOD BASIS.—A marriage in which each wishes to realise an individual aim by means of the other will stand well ; for instance, when the woman wishes to become famous through the man and the man beloved through the woman.

400.

PROTEUS-NATURE.—Through love women actually become what they appear to be in the imagination of their lovers.

401.

To LOVE AND TO POSSESS.—As a rule women love a distinguished man to the extent that they wish to possess him exclusively. They would gladly keep him under lock and key, if their vanity did not forbid, but vanity demands that he should also appear distinguished before others.

402.

THE TEST OF A GOOD MARRIAGE.—The goodness of a marriage is proved by the fact that it can stand an "exception."

403.

BRINGING ANYONE ROUND TO ANYTHING.—One may make any person so weak and weary by disquietude, anxiety, and excess of work or thought that he no longer resists anything that appears complicated, but gives way to it,—diplomatists and women know this.

404.

PROPRIETY AND HONESTY.—Those girls who mean to trust exclusively to their youthful charms for their provision in life, and whose cunning is further prompted by worldly mothers, have just the same aims as courtesans, only they are wiser and less honest.

405.

MASKS.—There are women who, wherever one examines them, have no inside, but are mere masks. A man is to be pitied who has connection with such almost spectre-like and necessarily unsatisfactory creatures, but it is precisely such women who know how to excite a man's desire most strongly; he seeks for their soul, and seeks evermore.

406.

MARRIAGE AS A LONG TALK.—In entering on a marriage one should ask one's self the question, "Do you think you will pass your time well with this woman till your old age?" All else in marriage is transitory; talk, however, occupies most of the time of the association.

407.

GIRLISH DREAMS.—Inexperienced girls flatter themselves with the notion that it is in their power to make a man happy; later on they learn that it is equivalent to underrating a man to suppose that he needs only a girl to make him happy. Women's vanity requires a man to be something more than merely a happy husband.

408.

THE DYING-OUT OF FAUST AND MARGUERITE.—According to the very intelligent remark of a scholar, the educated men of modern Germany resemble somewhat a mixture of Mephistopheles and Wagner, but are not at all like Faust, whom our grandfathers (in their youth at least) felt agitating within them. To them, therefore,—to continue the remark,—Marguerites are not suited, for two reasons. And because the latter are no longer desired they seem to be dying out.

409.

CLASSICAL EDUCATION FOR GIRLS.—For goodness sake let us not give our classical education to girls! An education which, out of ingenious, inquisitive, ardent youths, so frequently makes—copies of their teacher!

410.

WITHOUT RIVALS.—Women readily perceive in a man whether his soul has already been taken possession of; they wish to be loved without rivals, and find fault with the objects of his ambition, his political tasks, his sciences and arts, if he have a passion for such things. Unless he be distinguished thereby,—then, in the case of a love-relationship between them, women look at the same time for an increase of *their own* distinction; under such circumstances, they favour the lover.

411.

THE FEMININE INTELLECT.—The intellect of women manifests itself as perfect mastery, presence of mind, and utilisation of all advantages. They transmit it as a fundamental quality to their children, and the father adds thereto the darker background of the will. His influence determines as it were the rhythm and harmony with which the new life is to be performed; but its melody is derived from the mother. For those who know how to put a thing properly: women have intelligence, men have character and passion. This does not contradict the fact that men actually achieve so much more with their intelligence: they have deeper and more powerful impulses; and it is these which carry their understanding (in itself something passive) to such an extent. Women are often silently surprised at the great respect men pay to their character. When, therefore, in the choice of a partner men seek specially for a being of deep and strong character, and women for a being of intelligence, brilliancy, and presence of mind, it is plain that at bottom men seek for the ideal man, and women for the ideal woman,—consequently not for the complement but for the completion of their own excellence.

412.

HESIOD'S OPINION CONFIRMED.—It is a sign of women's wisdom that they have almost always known how to get themselves supported, like drones in a bee-hive. Let us just consider what this meant originally, and why men do not depend upon women for their support. Of a truth it is because masculine vanity and reverence are greater than feminine wisdom; for women have known how to secure for themselves by their subordination the greatest advantage, in fact, the upper hand. Even the care of children may originally have been used by the wisdom of women as an excuse for withdrawing themselves as much as possible from work. And at present they still understand when they are really active (as house keepers, for instance) how to make a bewildering fuss about it, so that the merit of their activity is usually ten times over-estimated by men.

413.

LOVERS AS SHORT-SIGHTED PEOPLE.—A pair of powerful spectacles has sometimes sufficed to cure a person in love; and whoever has had sufficient imagination to represent a face or form twenty years older, has probably gone through life not much disturbed.

414.

WOMEN IN HATRED.—In a state of hatred women are more dangerous than men; for one thing, because they are hampered by no regard for fairness when their hostile feelings have been aroused; but let their hatred develop unchecked to its utmost consequences; then also, because they are expert in finding sore spots (which every man and every party possess), and pouncing upon them: for which purpose their dagger-pointed intelligence is of good service (whilst men, hesitating at the sight of wounds, are often generously and conciliatorily inclined).

415.

LOVE.—The love idolatry which women practise is fundamentally and originally an intelligent device, inasmuch as they increase their power by all the idealisings of love and exhibit themselves as so much the more desirable in the eyes of men. But by being accustomed for centuries to this exaggerated appreciation of love, it has come to pass that they have been caught in their own net and have forgotten the origin of the device. They themselves are now still more deceived than the men, and on that account also suffer more from the disillusionment which, almost necessarily, enters into the life of every woman—so far, at any rate, as she has sufficient imagination and intelligence to be able to be deceived and undeceived.

416.

THE EMANCIPATION OF WOMEN.—Can women be at all just, when they are so accustomed to love and to be immediately biased for or against? For that reason they are also less interested in things and more in individuals: but when they are interested in things they immediately become their partisans, and thereby spoil their pure, innocent effect. Thus there arises a danger, by no means small, in entrusting politics and certain portions of science to them (history, for instance). For what is rarer than a woman who really knows what science is? Indeed the best of them cherish in their breasts a secret scorn for science, as if they were somehow superior to it. Perhaps all this can be changed in time; but meanwhile it is so.

417.

THE INSPIRATION IN WOMEN'S JUDGMENTS.—The sudden decisions, for or against, which women are in the habit of making, the flashing illumination of personal relations caused by their spasmodic inclinations and aversions, in short, the proofs of feminine injustice have been invested with a lustre by men who are in love, as if all women had inspirations of wisdom, even without the Delphic cauldron and the laurel wreaths; and their utterances are interpreted and duly set forth as Sibylline oracles for long afterwards. When one considers, however, that for every person and for every cause something can be said in favour of it but equally also something against it, that things are not only two-sided, but also three and four-sided, it is almost difficult to be entirely at fault in such sudden decisions; indeed, it might be said that the nature of things has been so arranged that women should always carry their point.^[22]

418.

BEING LOVED.—As one of every two persons in love is usually the one who loves, the other the one who is loved, the belief has arisen that in every love-affair there is a constant amount of love; and that the more of it the one person monopolises the less is left for the other. Exceptionally it happens that the vanity of each of the parties persuades him or her that it is *he* or *she* who must be loved; so that both of them wish to be loved: from which cause many half funny, half absurd scenes take place, especially in married life.

419.

CONTRADICTIONS IN FEMININE MINDS.—Owing to the fact that women are so much more personal than objective, there are tendencies included in the range of their ideas which are logically in contradiction to one another; they are accustomed in turn to become enthusiastically fond just of the representatives of these tendencies and accept their systems in the lump; but in such wise that a dead place originates wherever a new personality afterwards gets the ascendancy. It may happen that the whole philosophy in the mind of an old lady consists of nothing but such dead places.

420.

WHO SUFFERS THE MORE?—After a personal dissension and quarrel between a woman and a man the latter party suffers chiefly from the idea of having wounded the other, whilst the former suffers chiefly from the idea of not having wounded the other sufficiently; so she subsequently endeavours by tears, sobs, and discomposed mien, to make his heart heavier.

421.

AN OPPORTUNITY FOR FEMININE MAGNANIMITY.—If we could disregard the claims of custom in our thinking we might consider whether nature and reason do not suggest several marriages for men, one after another: perhaps that, at the age of twenty-two, he should first marry an older girl who is mentally and morally his superior, and can be his leader through all the dangers of the twenties (ambition, hatred, self-contempt, and passions of all kinds). This woman's affection would subsequently change entirely into maternal love, and she would not only submit to it but would encourage the man in the most salutary manner, if in his thirties he contracted an alliance with quite a young girl whose education he himself should take in hand. Marriage is a necessary institution for the twenties; a useful, but not necessary, institution for the thirties; for later life it is often harmful, and promotes the mental deterioration of the man.

422.

THE TRAGEDY OF CHILDHOOD.—Perhaps it not infrequently happens that noble men with lofty aims have to fight their hardest battle in childhood; by having perchance to carry out their principles in opposition to a base-minded father addicted to feigning and falsehood, or living, like Lord Byron, in constant warfare with a childish and passionate mother. He who has had such an experience will never be able to forget all his life who has been his greatest and most dangerous enemy.

423.

PARENTAL FOLLY.—The grossest mistakes in judging a man are made by his parents, this is a fact, but how is it to be explained? Have the parents too much experience of the child and cannot any longer arrange this experience into a unity? It has been noticed that it is only in the earlier period of their sojourn in foreign countries that travellers rightly grasp the general distinguishing features of a people; the better they come to know it, they are the less able to see what is typical and distinguishing in a people. As soon as they grow short-sighted their eyes cease to be long-sighted. Do parents, therefore, judge their children falsely because they have never stood far enough away from them? The following is quite another explanation: people are no longer accustomed to reflect on what is close at hand and surrounds them, but just accept it. Perhaps the usual thoughtlessness of parents is the reason why they judge so wrongly when once they are compelled to judge their children.

424.

THE FUTURE OF MARRIAGE.—The noble and liberal-minded women who take as their mission the education and elevation of the female sex, should not overlook one point of view: Marriage regarded in its highest aspect, as the spiritual friendship of two persons of opposite sexes, and accordingly such as is hoped for in future, contracted for the purpose of producing and educating a new generation,—such marriage, which only makes use of the sensual, so to speak, as a rare and occasional means to a higher purpose, will, it is to be feared, probably need a natural auxiliary, namely, *concubinage*. For if, on the grounds of his health, the wife is also to serve for the sole satisfaction of the man's sexual needs, a wrong perspective, opposed to the aims indicated, will have most influence in the choice of a wife. The aims referred to: the production of descendants, will be accidental, and their successful education highly improbable. A good wife, who has to be friend, helper, child-bearer, mother, family-head and manager, and has even perhaps to conduct her own business and affairs separately from those of the husband, cannot at the same time be a concubine; it would, in general, be asking too much of her. In the future, therefore, a state of things might take place the opposite of what existed at Athens in the time of Pericles; the men, whose wives were then little more to them than concubines, turned besides to the Aspasia's, because they longed for the charms of a companionship gratifying both to head and heart, such as the grace and intellectual suppleness of women could alone provide. All human institutions, just like marriage, allow only a moderate amount of practical idealising, failing which coarse remedies immediately become necessary.

425.

THE "STORM AND STRESS" PERIOD OF WOMEN.—In the three or four civilised countries of Europe, it is possible, by several centuries of education, to make out of women anything we like,—even men, not in a sexual sense, of course, but in every other. Under such influences they will acquire all the masculine virtues and forces, at the same time, of course, they must also have taken all the masculine weaknesses and vices into the bargain: so much, as has been said, we can command. But how shall we endure the intermediate state thereby induced, which may even last two or three centuries, during which feminine follies and injustices, woman's original birthday endowment, will still maintain the ascendancy over all that has been otherwise gained and acquired? This will be the time when indignation will be the peculiar masculine passion; indignation, because all arts and sciences have been overflowed and choked by an unprecedented dilettanteism, philosophy talked to death by brain-bewildering chatter, politics more fantastic and partisan than ever, and society in complete disorganisation, because the conservatrices of ancient customs have become ridiculous to themselves, and have endeavoured in every way to place themselves outside the pale of custom. If indeed women had their greatest power in custom, where will they have to look in order to reacquire a similar plenitude of power after having renounced custom?

426.

FREE-SPIRIT AND MARRIAGE.—Will free thinkers live with women? In general, I think that, like the prophesying birds of old, like the truth-thinkers and truth-speakers of the present, they must prefer to *fly alone*.

427.

THE HAPPINESS OF MARRIAGE.—Everything to which we are accustomed draws an ever-tightening cobweb-net around us; and presently we notice that the threads have become cords, and that we ourselves sit in the middle like a spider that has here got itself caught and must feed on its own blood. Hence the free spirit hates all rules and customs, all that is permanent and definitive, hence he painfully tears asunder again and again the net around him, though in consequence thereof he will suffer from numerous wounds, slight and severe; for he must break off every thread *from himself*, from his body and soul. He must learn to love where he has hitherto hated, and *vice versa*. Indeed, it must not be a thing impossible for him to sow dragon's teeth in the same field in which he formerly scattered the abundance of his bounty. From this it can be inferred whether he is suited for the happiness of marriage.

428.

TOO INTIMATE.—When we live on too intimate terms with a person it is as if we were again and again handling a good engraving with our fingers; the time comes when we have soiled and damaged paper in our hands, and nothing more. A man's soul also gets worn out by constant handling; at least, it eventually *appears* so to us—never again do we see its original design and beauty. We always lose through too familiar association with women and friends; and some times we lose the pearl of our life thereby.

429.

THE GOLDEN CRADLE.—The free spirit will always feel relieved when he has finally resolved to shake off the motherly care and guardianship with which women surround him. What harm will a rough wind, from which he has been so anxiously protected, do him? Of what consequence is a genuine disadvantage, loss, misfortune, sickness, illness, fault, or folly more or less in his life, compared with the bondage of the golden cradle, the peacock's-feather fan, and the oppressive feeling that he must, in addition, be grateful because he is waited on and spoiled like a baby? Hence it is that the milk which is offered him by the motherly disposition of the women about him can so readily turn into gall.

430.

A VOLUNTARY VICTIM.—There is nothing by which able women can so alleviate the lives of their husbands, should these be great and famous, as by becoming, so to speak, the receptacle for the general disfavour and occasional ill-humour of the rest of mankind. Contemporaries are usually accustomed to overlook many mistakes, follies, and even flagrant injustices in their great men if only they can find some one to maltreat and kill, as a proper victim for the relief of their feelings. A wife not infrequently has the ambition to present herself for this sacrifice, and then the husband may indeed feel satisfied,—he being enough of an egoist to have such a voluntary storm, rain, and lightning-conductor beside him.

431.

AGREEABLE ADVERSARIES.—The natural inclination of women towards quiet, regular, happily tuned existences and intercourse, the oil-like and calming effect of their influence upon the sea of life, operates unconsciously against the heroic inner impulse of the free spirit. Without knowing it, women act as if they were taking away the stones from the path of the wandering mineralogist in order that he might not strike his foot against them—when he has gone out for the very purpose of striking against them.

432.

THE DISCORD OF TWO CONCORDS. Woman wants to serve, and finds her happiness therein; the free spirit does not want to be served, and therein finds his happiness.

433.

XANTIPPE. Socrates found a wife such as he required,—but he would not have sought her had he known her sufficiently well; even the heroism of his free spirit would not have gone so far. As a matter of fact, Xantippe forced him more and more into his peculiar profession, inasmuch as she made house and home doleful and dismal to him; she taught him to live in the streets and wherever gossiping and idling went on, and thereby made him the greatest Athenian street-dialectician, who had, at last, to compare himself to a gad-fly which a god had set on the neck of the beautiful horse Athens to prevent it from resting.

434.

BLIND TO THE FUTURE.—Just as mothers have senses and eye only for those pains of their children that are evident to the senses and eye, so the wives of men of high aspirations cannot accustom themselves to see their husbands suffering, starving, or slighted,—although all this is, perhaps, not only the proof that they have rightly chosen their attitude in life, but even the guarantee that their great aims *must* be achieved some time. Women always intrigue privately against the higher souls of their husbands; they want to cheat them out of their future for the sake of a painless and comfortable present.

435.

AUTHORITY AND FREEDOM.—However highly women may honour their husbands, they honour still more the powers and ideas recognised by society; they have been accustomed for millennia to go along with their hands folded on their breasts, and their heads bent before every thing dominant, disapproving of all resistance to public authority. They therefore unintentionally, and as if from instinct, hang themselves as a drag on the wheels of free-spirited, independent endeavour, and in certain circumstances make their husbands highly impatient, especially when the latter persuade themselves that it is really love which prompts the action of their wives. To disapprove of women's methods and generously to honour the motives that prompt them—that is man's nature and often enough his despair.

436.

CETERUM CENSEO—It is laughable when a company of paupers decree the abolition of the right of inheritance, and it is not less laughable when childless persons labour for the practical lawgiving of a country: they have not enough ballast in their ship to sail safely over the ocean of the future. But it seems equally senseless if a man who has chosen for his mission the widest knowledge and estimation of universal existence, burdens himself with personal considerations for a family, with the support, protection, and care of wife and child, and in front of his telescope hangs that gloomy veil through which hardly a ray from the distant firmament can penetrate. Thus I, too, agree with the opinion that in matters of the highest philosophy all married men are to be suspected.

437.

FINALLY.—There are many kinds of hemlock, and fate generally finds an opportunity to put a cup of this poison to the lips of the free spirit,—in order to "punish" him, as every one then says. What do the women do about him then? They cry and lament, and perhaps disturb the sunset-calm of the thinker, as they did in the prison at Athens. "Oh Crito, bid some one take those women away!" said Socrates at last.

EIGHTH DIVISION - A Glance at the State.

438.

ASKING TO BE HEARD.—The demagogic disposition and the intention of working upon the masses is at present common to all political parties ; on this account they are all obliged to change their principles into great *al fresco* follies and thus make a show of them. In this matter there is no further alteration to be made : indeed, it is superfluous even to raise a finger against it ; for here Voltaire's saying applies : "*Quand la populace se mcle de raisonner, tout est perdu.*" Since this has happened we have to accommodate ourselves to the new conditions, as we have to accommodate ourselves when an earthquake has displaced the old boundaries and the contour of the land and

altered the value of property. Moreover, when it is once for all a question in the politics of all parties to make life endurable to the greatest possible majority, this majority may always decide what they understand by an endurable life ; if they believe their intellect capable of finding the right means to this end why should we doubt about it? They *want*, once for all, to be the architects of their own good or ill fortune ; and if their feeling of free choice and their pride in the five or six ideas that their brain conceals and brings to light, really makes life so agreeable to them that they gladly put up with the fatal consequences of their narrow-mindedness, there is little to object to, provided that their narrow-mindedness does not go so far as to demand that *everything* shall become politics in this sense, that *all* shall live and act according to this standard. For, in the first place, it must be more than ever permissible for some people to keep aloof from politics and to stand somewhat aside. To this they are also impelled by the pleasure of free choice, and connected with this there may even be some little pride in keeping silence when too many, and only the many, are speaking. Then this small group must be excused if they do not attach such great importance to the happiness of the majority (nations or strata of population may be understood thereby), and are occasionally guilty of an ironical grimace ; for their seriousness lies elsewhere, their conception of happiness is quite different, and their aim cannot be encompassed by every clumsy hand that has just five fingers. Finally, there comes from time to time—what is certainly most difficult to concede to them, but must also be conceded—a moment when they emerge from their silent solitariness and try once more the strength of their lungs ; they then call to each other like people lost in a wood, to make themselves known and for mutual encouragement ; whereby, to be sure, much becomes audible that sounds evil to ears for which it is not intended. Soon, however, silence again prevails in the wood, such silence that the buzzing, humming, and fluttering of the countless insects that live in, above, and beneath it, are again plainly heard.

439.

CULTURE AND CASTE.—A higher culture can only originate where there are two distinct castes of society : that of the working class, and that of the leisured class who are capable of true leisure ; or, more strongly expressed, the caste of compulsory labour and the caste of free labour. The point of view of the division of happiness is not essential when it is a question of the production of a higher culture; in any case, however, the leisured caste is more susceptible to suffering and suffer more, their pleasure in existence is less and their task is greater. Now supposing there should be quite an interchange between the two castes, so that on the one hand the duller and less intelligent families and individuals are lowered from the higher caste into the lower, and, on the other hand, the freer men of the lower caste obtain access to the higher, a condition of things would be attained beyond which one can only perceive the open sea of vague wishes. Thus speaks to us the vanishing voice of the olden time ; but where are there still ears to hear it?

440.

OF GOOD BLOOD.—That which men and women of good blood possess much more than others, and which gives them an undoubted right to be more highly appreciated, are two arts which are always increased by inheritance: the art of being able to command, and the art of proud obedience. Now wherever commanding is the business of the day (as in the great world of commerce and industry), there results something similar to these families of good blood, only the noble bearing in obedience is lacking which is an inheritance from feudal conditions and hardly grows any longer in the climate of our culture.

441.

SUBORDINATION.—The subordination which is so highly valued in military and official ranks will soon become as incredible to us as the secret tactics of the Jesuits have already become ; and when this subordination is no longer possible a multitude of astonishing results will no longer be attained, and the world will be all the poorer. It must disappear, for its foundation is disappearing, the belief in unconditional authority, in ultimate truth ; even in military ranks physical compulsion is not sufficient to produce it, but only the inherited adoration of the princely as of something superhuman. In *freer* circumstances people subordinate themselves only on conditions, in compliance with a mutual contract, consequently with all the provisos of self-interest.

442.

THE NATIONAL ARMY.—The greatest disadvantage of the national army, now so much glorified, lies in the squandering of men of the highest civilisation ; it is only by the favourableness of all circumstances that there are such men at all ; how carefully and anxiously should we deal with them, since long periods are required to create the chance conditions for the production of such delicately organised brains! But as the Greeks wallowed in the blood of Greeks, so do Europeans now in the blood of Europeans : and indeed, taken relatively, it is mostly the highly cultivated who are sacrificed, those who promise an abundant and excellent posterity ; for such stand in the front of the battle as commanders, and also expose themselves to most danger, by reason of their higher ambition. At present, when quite other and higher tasks are assigned than *patria* and *honor*, the rough Roman patriotism is either something dishonourable or a sign of being behind the times.

443.

HOPE AS PRESUMPTION.—Our social order will slowly melt away, as all former orders have done, as soon as the suns of new opinions have shone upon mankind with a new glow. We can only wish this melting away in the hope thereof, and we are only reasonably entitled to hope when we believe that we and our equals have more strength in heart and head than the representatives of the existing state of things. As a rule, therefore, this hope will be a presumption, an *over-estimation*.

444.

WAR.—Against war it may be said that it makes the victor stupid and the vanquished revengeful. In favour of war it may be said that it barbarises in both its above-named results, and thereby makes more natural; it is the sleep or the winter period of culture ; man emerges from it with greater strength for good and for evil.

445.

IN THE PRINCE'S SERVICE.—To be able to act quite regardlessly it is best for a statesman to carry out his work not for himself but for a prince. The eye of the spectator is dazzled by the splendour of this general disinterestedness, so that it does not see the malignancy and severity which the work of a statesman brings with it.^[23]

446.

A QUESTION OF POWER, NOT OF RIGHT.—As regards Socialism, in the eyes of those who always consider higher utility, if it is *really* a rising against their oppressors of those who for centuries have been oppressed and downtrodden, there is no problem of *right* involved (notwithstanding the ridiculous, effeminate question, "How far *ought* we to grant its demands?") but only a problem of *power* ("How far *can* we make use of its demands?"); the same, therefore, as in the case of a natural force,—steam, for instance,—which is either forced by man into his service, as a machine-god, or which, in case of defects of the machine, that is to say, defects of human calculation in its construction, destroys it and man together. In order to solve this question of power we must know how strong Socialism is, in what modification it may yet be employed as a powerful lever in the present mechanism of political forces ; under certain circumstances we should do all we can to strengthen it. With every great force—be it the most dangerous—men have to think how they can make of it an instrument for their purposes. Socialism acquires a *right* only if war seems to have taken place between the two powers, the representatives of the old and the new, when, however, a wise calculation of the greatest possible preservation and advantageousness to both sides gives rise to a desire for a treaty. Without treaty no right. So far, however, there is neither war nor treaty on the ground in question, therefore no rights, no " *ought*."

447.

UTILISING THE MOST TRIVIAL DISHONESTY.—The power of the press consists in the fact that every individual who ministers to it only feels himself bound and constrained to a very small extent. He usually expresses *his* opinion, but sometimes also does *not* express it in order to serve his party or the politics of his country, or even himself. Such little faults of dishonesty, or perhaps only of a dishonest silence, are not hard to bear by the individual, but the consequences are extraordinary, because these little faults are committed by many at the same time. Each one

says to himself: "For such small concessions I live better and can make my income ; by the want of such little compliances I make myself impossible." Because it seems almost morally indifferent to write a line more (perhaps even without signature), or not to write it, a person who has money and influence can make any opinion a public one. He who knows that most people are weak in trifles, and wishes to attain his own ends thereby, is always dangerous.

448.

TOO LOUD A TONE IN GRIEVANCES.—Through the fact that an account of a bad state of things (for instance, the crimes of an administration, bribery and arbitrary favour in political or learned bodies) is greatly exaggerated, it fails in its effect on intelligent people, but has all the greater effect on the unintelligent (who would have remained indifferent to an accurate and moderate account). But as these latter are considerably in the majority, and harbour in themselves stronger will-power and more impatient desire for action, the exaggeration becomes the cause of investigations, punishments, promises, and reorganisations. In so far it is useful to exaggerate the accounts of bad states of things.

449.

THE APPARENT WEATHER - MAKERS OF POLITICS.—Just as people tacitly assume that he who understands the weather, and foretells it about a day in advance, makes the weather, so even the educated and learned, with a display of superstitious faith, ascribe to great statesmen as their most special work all the important changes and conjunctures that have taken place during their administration, when it is only evident that they knew something thereof a little earlier than other people and made their calculations accordingly,—thus they are also looked upon as weathermakers—and this belief is not the least important instrument of their power.

450.

NEW AND OLD CONCEPTIONS OF GOVERNMENT.—To draw such a distinction between Government and people as if two separate spheres of power, a stronger and higher, and a weaker and lower, negotiated and came to terms with each other, is a remnant of transmitted political sentiment, which still accurately represents the historic establishment of the conditions of power in *most* States. When Bismarck, for instance, describes the constitutional system as a compromise between Government and people, he speaks in accordance with a principle which has its reason in history (from whence, to be sure, it also derives its admixture of folly, without which nothing human can exist). On the other hand, we must now learn—in accordance with a principle which has originated only in the *brain* and has still to *make* history—that Government is nothing but an organ of the people, not an attentive, honourable "higher" in relation to a "lower" accustomed to modesty. Before we accept this hitherto unhistorical and arbitrary, although logical, formulation of the conception of Government, let us but consider its consequences, for the relation between people and Government is the strongest typical relation, after the pattern of which the relationship between teacher and pupil, master and servants, father and family, leader and soldier, master and apprentice, is unconsciously formed. At present, under the influence of the prevailing constitutional system of government, all these relationships are changing a little,—they are becoming compromises. But how they will have to be reversed and shifted, and change name and nature, when that newest of all conceptions has got the upper hand everywhere in people's minds!—to achieve which, however, a century may yet be required. In this matter there is nothing further to be wished for except caution and slow development.

451.

JUSTICE AS THE DECOY-CRY OF PARTIES.—Well may noble (if not exactly very intelligent) representatives of the governing classes asseverate : "We will treat men equally and grant them equal rights " ; so far a socialistic mode of thought which is based on *justice* is possible ; but, as has been said, only within the ranks of the governing class, which in this case *practises* justice with sacrifices and abnegations. On the other hand, to *demand* equality of rights, as do the Socialists of the subject caste, is by no means the outcome of justice, but of covetousness. If you expose bloody pieces of flesh to a beast, and withdraw them again, until it finally begins to roar, do you think that roaring implies justice?

452.

POSSESSION AND JUSTICE.—When the Socialists point out that the division of property at the present day is the consequence of countless deeds of injustice and violence, and, *in summa*, repudiate obligation to anything with so unrighteous a basis, they only perceive something isolated. The entire past of ancient civilisation is built up on violence, slavery, deception, and error ; we, however, cannot annul ourselves, the heirs of all these conditions, nay, the concrescences of all this past, and are not entitled to demand the withdrawal of a single fragment thereof. The unjust disposition lurks also in the souls of non-possessors ; they are not better than the possessors and have no moral prerogative; for at one time or another their ancestors have been possessors. Not forcible new distributions, but gradual transformations of opinion are necessary; justice in all matters must become greater, the instinct of violence weaker.

453.

THE HELMSMAN OF THE PASSIONS.—The statesman excites public passions in order to have the advantage of the counter-passions thereby aroused. To give an example : a German statesman knows quite well that the Catholic Church will never have the same plans as Russia ; indeed, that it would far rather be allied with the Turks than with the former country ; he likewise knows that Germany is threatened with great danger from an alliance between France and Russia. If he can succeed, therefore, in making France the focus and fortress of the Catholic Church, he has averted this danger for a lengthy period. He has, accordingly, an interest in showing hatred against the Catholics in transforming, by all kinds of hostility, the supporters of the Pope's authority into an impassioned political power which is opposed to German politics, and must, as a matter of course, coalesce with France as the adversary of Germany ; his aim is the catholicising of France, just as necessarily as Mirabeau saw the salvation of his native land in de-catholicising it. The one State, therefore, desires to muddle millions of minds of another State in order to gain advantage thereby. It is the same disposition which supports the republican form of government of a neighbouring State—*le désordre organisé*, as Mérimée says—for the sole reason that it assumes that this form of government makes the nation weaker, more distracted, less fit for war.

454.

THE DANGEROUS REVOLUTIONARY SPIRITS.—Those who are bent on revolutionising society may be divided into those who seek something for themselves thereby and those who seek something for their children and grandchildren. The latter are the more dangerous, for they have the belief and the good conscience of disinterestedness. The others can be appeased by favours : those in power are still sufficiently rich and wise to adopt that expedient. The danger begins as soon as the aims become impersonal ; revolutionists seeking impersonal interests may consider all defenders of the present state of things as personally interested, and may therefore feel themselves superior to their opponents.

455.

THE POLITICAL VALUE OF PATERNITY.—When a man has no sons he has not a full right to join in a discussion concerning the needs of a particular community. A person must himself have staked his dearest object along with the others : that alone binds him fast to the State ; he must have in view the well-being of his descendants, and must, therefore, above all, have descendants in order to take a right and natural share in all institutions and the changes thereof. The development of higher morality depends on a person's having sons; it disposes him to be unegoistic, or, more correctly, it extends his egoism in its duration and permits him earnestly to strive after goals which lie beyond his individual lifetime.

456.

PRIDE OF DESCENT.—A man may be justly proud of an unbroken line of *good* ancestors down to his father,—not however of the line itself, for every one has that. Descent from good ancestors constitutes the real nobility of birth ; a single break in the chain, one bad ancestor, therefore, destroys the nobility of birth. Every one who talks about his nobility should be asked : "Have you no violent, avaricious, dissolute, wicked, cruel man amongst your ancestors?"

"If with good cognisance and conscience he can answer No, then let his friendship be sought.

457.

SLAVES AND LABOURERS.—The fact that we regard the gratification of vanity as of more account than all other forms of well-being (security, position, and pleasures of all sorts), is shown to a ludicrous extent by every one wishing for the abolition of slavery and utterly abhorring to put any one into this position (apart altogether from political reasons), while every one must acknowledge to himself that in all respects slaves live more securely and more happily than modern labourers, and that slave labour is very easy labour compared with that of the "labourer." We protest in the name of the "dignity of man"; but, expressed more simply, that is just our darling vanity which feels non-equality, and inferiority in public estimation, to be the hardest lot of all. The cynic thinks differently concerning the matter, because he despises honour:—and so Diogenes was for some time a slave and tutor.

458.

LEADING MINDS AND THEIR INSTRUMENTS.—We see that great statesmen, and in general all who have to employ many people to carry out their plans, sometimes proceed one way and sometimes another; they either choose with great skill and care the people suitable for their plans, and then leave them a comparatively large amount of liberty, because they know that the nature of the persons selected impels them precisely to the point where they themselves would have them go; or else they choose badly, in fact take whatever comes to hand, but out of every piece of clay they form something useful for their purpose. These latter minds are the more high-handed; they also desire more submissive instruments; their knowledge of mankind is usually much smaller, their contempt of mankind greater than in the case of the first mentioned class, but the machines they construct generally work better than the machines from the workshops of the former.

459.

ARBITRARY LAW NECESSARY.—Jurists dispute whether the most perfectly thought-out law or that which is most easily understood should prevail in a nation. The former, the best model of which is Roman Law, seems incomprehensible to the layman, and is therefore not the expression of his sense of justice. Popular laws, the Germanic, for instance, have been rude, superstitious, illogical, and in part idiotic, but they represented very definite, inherited national morals and sentiments. But where, as with us, law is no longer custom, it can only *command* and be compulsion; none of us any longer possesses a traditional sense of justice; we must therefore content ourselves with *arbitrary laws* which are the expressions of the necessity that there *must be* law. The most logical is then in any case the most acceptable, because it is the most *impartial*, granting even that in every case the smallest unit of measure in the relation of crime and punishment is arbitrarily fixed.

460.

THE GREAT MAN OF THE MASSES.—The recipe for what the masses call a great man is easily given. In all circumstances let a person provide them with something very pleasant, or first let him put it into their heads that this or that would be very pleasant, and then let him give it to them. On no account give it *immediately*, however: but let him acquire it by the greatest exertions, or seem thus to acquire it. The masses must have the impression that there is a powerful, nay indomitable strength of will operating; at least it must seem to be there operating. Everybody admires a strong will, because nobody possesses it, and everybody says to himself that if he did possess it there would no longer be any bounds for him and his egoism. If, then, it becomes evident that such a strong will effects something very agreeable to the masses, instead of hearkening to the wishes of covetousness, people admire once more, and wish good luck to themselves. Moreover, if he has all the qualities of the masses, they are the less ashamed before him, and he is all the more popular. Consequently, he may be violent, envious, rapacious, intriguing, flattering, fawning, inflated, and, according to circumstances, anything whatsoever.

461.

PRINCE AND GOD.—People frequently commune with their princes in the same way as with their God, as indeed the prince himself was frequently the Deity's representative, or at least His high priest. This almost uncanny

disposition of veneration, disquiet, and shame, grew, and has grown, much weaker, but occasionally it flares up again, and fastens upon powerful persons generally. The cult of genius is an echo of this veneration of Gods and Princes. Wherever an effort is made to exalt particular men to the superhuman, there is also a tendency to regard whole grades of the population as coarser and baser than they really are.

462.

MY UTOPIA.—In a better arranged society the heavy work and trouble of life will be assigned to those who suffer least through it, to the most obtuse, therefore; and so step by step up to those who are most sensitive to the highest and sublimest kinds of suffering, and who therefore still suffer notwithstanding the greatest alleviations of life.

463.

A DELUSION IN SUBVERSIVE DOCTRINES.—There are political and social dreamers who ardently and eloquently call for the overthrow of all order, in the belief that the proudest fane of beautiful humanity will then rear itself immediately, almost of its own accord. In these dangerous dreams there is still an echo of Rousseau's superstition, which believes in a marvellous primordial goodness of human nature, buried up, as it were; and lays all the blame of that burying-up on the institutions of civilisation, on society, State, and education. Unfortunately, it is well known by historical experiences that every such overthrow reawakens into new life the wildest energies, the long-buried horrors and extravagances of remotest ages ; that an over-throw, therefore, may possibly be a source of strength to a deteriorated humanity, but never a regulator, architect, artist, or perfecter of human nature. It was not *Voltaire's* moderate nature, inclined towards regulating, purifying, and reconstructing, but *Rousseau's* passionate follies and half-lies that aroused the optimistic spirit of the Revolution, against which I cry, "*Ecrasez l'infâme!*" Owing to this *the Spirit of enlightenment and progressive development* has been long scared away ; let us see each of us individually if it is not possible to recall it !

464.

MODERATION.—When perfect resoluteness in thinking and investigating, that is to say, freedom of spirit, has become a feature of character, it produces moderation of conduct ; for it weakens avidity, attracts much extant energy for the furtherance of intellectual aims, and shows the semi-usefulness, or uselessness and danger, of all sudden changes.

465.

THE RESURRECTION OF THE SPIRIT.—A nation usually renews its youth on a political sick-bed, and there finds again the spirit which it had gradually lost in seeking and maintaining power. Culture is indebted most of all to politically weakened periods

466.

NEW OPINIONS IN THE OLD HOME.—The overthrow of opinions is not immediately followed by the overthrow of institutions ; on the contrary, the new opinions dwell for a long time in the desolate and haunted house of their predecessors, and conserve it even for want of a habitation.

467.

PUBLIC EDUCATION.—In large States public education will always be extremely mediocre, for the same reason that in large kitchens the cooking is at best only mediocre.

468.

INNOCENT CORRUPTION.—In all institutions into which the sharp breeze of public criticism does not penetrate an innocent corruption grows up like a fungus (for instance, in learned bodies and senates).

469.

SCHOLARS AS POLITICIANS.—To scholars who become politicians the comic role is usually assigned ; they have to be the good conscience of a state policy.

470.

THE WOLF HIDDEN BEHIND THE SHEEP.—Almost every politician, in certain circumstances, has such need of an honest man that he breaks into the sheep-fold like a famished wolf; not, however, to devour a stolen sheep, but to hide himself behind its woolly back.

471.

HAPPY TIMES.—A happy age is no longer possible, because men only wish for it but do not desire to have it ; and each individual, when good days come for him, learns positively to pray for disquiet and misery. The destiny of mankind is arranged for *happy moments*—every life has such—but not for happy times. Nevertheless, such times will continue to exist in man's imagination as "over the hills and far away," an heirloom of his earliest ancestors ; for the idea of the happy age, from the earliest times to the present, has no doubt been derived from the state in which man, after violent exertions in hunting and warfare, gives himself over to repose, stretches out his limbs, and hears the wings of sleep rustle around him. It is a false conclusion when, in accordance with that old habit, man imagines that after *whole periods* of distress and trouble he will be able also to enjoy the state of happiness in *proportionate increase and duration*.

472.

RELIGION AND GOVERNMENT.—So long as the State, or, more properly, the Government, regards itself as the appointed guardian of a number of minors, and on their account considers the question whether religion should be preserved or abolished, it is highly probable that it will always decide for the preservation thereof. For religion satisfies the nature of the individual in times of loss, destitution, terror, and distrust, in cases, therefore, where the Government feels itself incapable of doing anything directly for the mitigation of the spiritual sufferings of the individual; indeed, even in general unavoidable and next to inevitable evils (famines, financial crises, and wars) religion gives to the masses an attitude of tranquillity and confiding expectancy. Whenever the necessary or accidental deficiencies of the State Government, or the dangerous consequences of dynastic interests, strike the eyes of the intelligent and make them refractory, the unintelligent will only think they see the finger of God therein and will submit with patience to the dispensations from *on high* (a conception in which divine and human modes of government usually coalesce); thus internal civil peace and continuity of development will be preserved. The power, which lies in the unity of popular feeling, in the existence of the same opinions and aims for all, is protected and confirmed by religion,—the rare cases excepted in which a priesthood cannot agree with the State about the price, and therefore comes into conflict with it. As a rule the State will know how to win over the priests, because it needs their most private and secret system for educating souls, and knows how to value servants who apparently, and outwardly, represent quite other interests. Even at present no power can become "legitimate" without the assistance of the priests ; a fact which Napoleon understood. Thus, absolutely paternal government and the careful preservation of religion necessarily go hand-in-hand. In this connection it must be taken for granted that the rulers and governing classes are enlightened concerning the advantages which religion affords, and consequently feel themselves to a certain extent superior to it, inasmuch as they use it as a means ; thus freedom of spirit has its origin here. But how will it be when the totally different interpretation of the idea of Government, such as is taught in *democratic* States, begins to prevail? When one sees in it nothing but the instrument of the popular will, no "upper" in contrast to an "under," but merely a function of the sole sovereign, the people? Here also only the same attitude which the people assume towards religion can be assumed by the Government; every diffusion of enlightenment will have to find an echo even in the representatives, and the utilising and exploiting of religious impulses and consolations for State purposes will not be so easy (unless powerful party leaders occasionally exercise an influence resembling that of enlightened despotism). When, however, the State is not permitted to derive any further advantage from religion, or when people think far too variously on religious matters to allow the State to adopt a consistent and uniform procedure with respect to them, the way out of the difficulty will necessarily present itself, namely to treat religion as a private affair and leave it to the conscience and custom of each single individual. The first result of all is that religious feeling seems to be strengthened, inasmuch as hidden and suppressed impulses thereof, which the State had unintentionally or intentionally stifled, now break forth and rush to extremes ; later on, however, it is found that

religion is overgrown with sects, and that an abundance of dragon's teeth were sown as soon as religion was made a private affair. The spectacle of strife, and the hostile laying bare of all the weaknesses of religious confessions, admit finally of no other expedient except that every better and more talented person should make irreligiosity his private affair, a sentiment which now obtains the upper hand even in the minds of the governing classes, and, almost against their will, gives an anti-religious character to their measures. As soon as this happens, the sentiment of persons still religiously disposed, who formerly adored the State as something half sacred or wholly sacred, changes into decided *hostility to the State*; they lie in wait for governmental measures, seeking to hinder, thwart, and disturb as much as they can, and, by the fury of their contradiction, drive the opposing parties, the irreligious ones, into an almost fanatical enthusiasm *for the State*; in connection with which there is also the silently Co-operating influence, that since their separation from religion the hearts of persons in these circles are conscious of a void, and seek by devotion to the State to provide themselves provisionally with a substitute for religion, a kind of stuffing for the void. After these perhaps lengthy transitional struggles, it is finally decided whether the religious parties are still strong enough to revive an old condition of things, and turn the wheel backwards: in which case enlightened despotism (perhaps less enlightened and more timorous than formerly), inevitably gets the State into its hands, or whether the non-religious parties achieve their purpose, and, possibly through schools and education, check the increase of their opponents during several generations, and finally make them no longer possible. Then, however, their enthusiasm for the State also abates: it always becomes more obvious that along, with the religious adoration which regards the State as a mystery and a supernatural institution, the reverent and pious relation to it has also been convulsed. Henceforth individuals see only that side of the State which may be useful or injurious to them, and press forward by all means to obtain an influence over it. But this rivalry soon becomes too great; men and parties change too rapidly, and throw each other down again too furiously from the mountain when they have only just succeeded in getting aloft. All the measures which such a Government carries out lack the guarantee of permanence; people then fight shy of undertakings which would require the silent growth of future decades or centuries to produce ripe fruit. Nobody henceforth feels any other obligation to a law than to submit for the moment to the power which introduced the law; people immediately set to work, however, to undermine it by a new power, a newly-formed majority. Finally—it may be confidently asserted—the distrust of all government, the insight into the useless and harassing nature of these short-winded struggles, must drive men to an entirely new resolution: to the abrogation of the conception of the State and the abolition of the contrast of "private and public." Private concerns gradually absorb the business of the State; even the toughest residue which is left over from the old work of governing (the business, for instance, which is meant to protect private persons from private persons) will at last some day be managed by private enterprise. The neglect, decline, and *death of the State*, the liberation of the private person (I am careful not to say the individual), are the consequences of the democratic conception of the State; that is its mission. When it has accomplished its task,—which, like everything human, involves much rationality and irrationality,—and when all relapses into the old malady have been overcome, then a new leaf in the story-book of humanity will be unrolled, on which readers will find all kinds of strange tales and perhaps also some amount of good. To repeat shortly what has been said: the interests of the tutelary Government and the interests of religion go hand-in-hand, so that when the latter begins to decay the foundations of the State are also shaken. The belief in a divine regulation of political affairs, in a mystery in the existence of the State, is of religious origin: if religion disappears, the State will inevitably lose its old veil of Isis, and will no longer arouse veneration. The sovereignty of the people, looked at closely, serves also to dispel the final fascination and superstition in the realm of these sentiments; modern democracy is the historical form of the *decay of the State*. The outlook which results from this certain decay is not, however, unfortunate in every respect; the wisdom and the selfishness of men are the best developed of all their qualities; when the State no longer meets the demands of these impulses, chaos will least of all result, but a still more appropriate expedient than the State will get the mastery over the State. How many organising forces have already been seen to die out! For example, that of the *gens* or clan which for millennia was far mightier than the power of the family, and indeed already ruled and regulated long before the latter existed. We ourselves see the important notions of the right and might of the family, which once possessed the supremacy as far as the Roman

system extended, always becoming paler and feebler. In the same way a later generation will also see the State become meaningless in certain parts of the world,—an idea which many contemporaries can hardly contemplate without alarm and horror. To *labour* for the propagation and realisation of this idea is, certainly, another thing ; one must think very presumptuously of one's reason, and only half understand history, to set one's hand to the plough at present—when as yet no one can show us the seeds that are afterwards to be sown upon the broken soil. Let us, therefore, trust to the "wisdom and selfishness of men" that the State may *yet* exist a good while longer, and that the destructive attempts of over-zealous, too hasty socialists may be in vain !

473.

SOCIALISM, WITH REGARD TO ITS MEANS.—Socialism is the fantastic younger brother of almost decrepit despotism, which it wants to succeed ; its efforts are, therefore, in the deepest sense reactionary. For it desires such an amount of State power as only despotism has possessed,—indeed, it outdoes all the past, in that it aims at the complete annihilation of the individual, whom it deems an unauthorised luxury of nature, which is to be improved by it into an appropriate *organ of the general community*. Owing to its relationship, it always appears in proximity to excessive developments of power, like the old typical socialist, Plato, at the court of the Sicilian tyrant ; it desires (and under certain circumstances furthers) the Caesarian despotism of this century, because, as has been said, it would like to become its heir. But even this inheritance would not suffice for its objects, it requires the most submissive prostration of all citizens before the absolute State, such as has never yet been realised ; and as it can no longer even count upon the old religious piety towards the State, but must rather strive involuntarily and continuously for the abolition thereof,—because it strives for the abolition of all existing *States*,—it can only hope for existence occasionally, here and there for short periods, by means of the extremest terrorism. It is therefore silently preparing itself for reigns of terror, and drives the word "justice" like a nail into the heads of the half-cultured masses in order to deprive them completely of their understanding (after they had already suffered seriously from the half-culture), and to provide them with a good conscience for the bad game they are to play. Socialism may serve to teach, very brutally and impressively, the danger of all accumulations of State power, and may serve so far to inspire dis- trust of the State itself. When its rough voice strikes up the way-cry "*as much State as possible*" the shout at first becomes louder than ever,—but soon the opposition cry also breaks forth, with so much greater force: "as little State as possible

474.

THE DEVELOPMENT OF THE MIND FEARED BY THE STATE.—The Greek *polis was*, like every organising political power, exclusive and distrustful of the growth of culture ; its powerful fundamental impulse seemed almost solely to have a paralysing and obstructive effect thereon. It did not want to let any history or any becoming have a place in culture ; the education laid down in the State laws was meant to be obligatory on all generations to keep them at *one* stage of development. Plato also, later on, did not desire it to be otherwise in his ideal State. *In spite of* the polis culture developed itself in this manner; indirectly to be sure, and against its will, the polis furnished assistance because the ambition of individuals therein was stimulated to the utmost, so that, having once found the path of intellectual development, they followed it to its farthest extremity. On the other hand, appeal should not be made to the panegyric of Pericles, for it is only a great optimistic dream about the alleged necessary connection between the Polis and Athenian culture; immediately before the night fell over Athens (the plague and the breakdown of tradition), Thucydides makes this culture flash up once more like a transfiguring afterglow, to efface the remembrance of the evil day that had preceded.

475.

EUROPEAN MAN AND THE DESTRUCTION OF NATIONALITIES.—Commerce and industry, interchange of books and letters, the universality of all higher culture, the rapid changing of locality and landscape, and the present nomadic life of all who are not landowners,—these circumstances necessarily bring with them a weakening, and finally a destruction of nationalities, at least of European nationalities ; so that, in consequence of perpetual crossings, there must arise out of them all a mixed race, that of the European man. At present the isolation of nations,

through the rise of *national* enmities, consciously or unconsciously counteracts this tendency; but nevertheless the process of fusing advances slowly, in spite of those occasional counter-currents. This artificial nationalism is, however, as dangerous as was artificial Catholicism, for it is essentially an unnatural condition of extremity and martial law, which has been proclaimed by the few over the many, and requires artifice, lying, and force to maintain its reputation. It is not the interests of the many (of the peoples), as they probably say, but it is first of all the interests of certain princely dynasties, and then of certain commercial and social classes, which impel to this nationalism; once we have recognised this fact, we should just fearlessly style ourselves *good Europeans* and labour actively for the amalgamation of nations; in which efforts Germans may assist by virtue of their hereditary position as *interpreters and intermediaries between nations*. By the way, the great problem of the Jews only exists within the national States, inasmuch as their energy and higher intelligence, their intellectual and volitional capital, accumulated from generation to generation in tedious schools of suffering, must necessarily attain to universal supremacy here to an extent provocative of envy and hatred; so that the literary misconduct is becoming prevalent in almost all modern nations—and all the more so as they again set up to be national—of sacrificing the Jews as the scapegoats of all possible public and private abuses. So soon as it is no longer a question of the preservation or establishment of nations, but of the production and training of a European mixed-race of the greatest possible strength, the Jew is just as useful and desirable an ingredient as any other national remnant. Every nation, every individual, has unpleasant and even dangerous qualities,—it is cruel to require that the Jew should be an exception. Those qualities may even be dangerous and frightful in a special degree in his case; and perhaps the young Stock-Exchange Jew is in general the most repulsive invention of the human species. Nevertheless, in a general summing up, I should like to know how much must be excused in a nation which, not without blame on the part of all of us, has had the most mournful history of all nations, and to which we owe the most loving of men (Christ), the most upright of sages (Spinoza), the mightiest book, and the most effective moral law in the world? Moreover, in the darkest times of the Middle Ages, when Asiatic clouds had gathered darkly over Europe, it was Jewish free-thinkers, scholars, and physicians who upheld the banner of enlightenment and of intellectual independence under the severest personal sufferings, and defended Europe against Asia; we owe it not least to their efforts that a more natural, more reasonable, at all events un-mythical, explanation of the world was finally able to get the upper hand once more, and that the link of culture which now unites us with the enlightenment of Greco-Roman antiquity has remained unbroken. If Christianity has done everything to orientalise the Occident, Judaism has assisted essentially in occidentalising it anew; which, in a certain sense, is equivalent to making Europe's mission and history a *continuation of that of Greece*.

476.

APPARENT SUPERIORITY OF THE MIDDLE AGES.—The Middle Ages present in the Church an institution with an absolutely universal aim, involving the whole of humanity,—an aim, moreover, which—presumably—concerned man's highest interests; in comparison therewith the aims of the States and nations which modern history exhibits make a painful impression; they seem petty, base, material, and restricted in extent. But this different impression on our imagination should certainly not determine our judgment; for that universal institution corresponded to feigned and fictitiously fostered needs, such as the need of salvation, which, wherever they did not already exist, it had first of all to create: the new institutions, however, relieve actual distresses; and the time is coming when institutions will arise to minister to the common, genuine needs of all men, and to cast that fantastic prototype, the Catholic Church, into shade and oblivion.

477.

WAR INDISPENSABLE.—It is nothing but fanaticism and beautiful soulism to expect very much (or even, much only) from humanity when it has forgotten how to wage war. For the present we know of no other means whereby the rough energy of the camp, the deep impersonal hatred, the cold-bloodedness of murder with a good conscience, the general ardour of the system in the destruction of the enemy, the proud indifference to great losses, to one's own existence and that of one's friends, the hollow, earthquake-like convulsion of the soul, can be as forcibly and

certainly communicated to enervated nations as is done by every great war : owing to the brooks and streams that here break forth, which, certainly, sweep stones and rubbish of all sorts along with them and destroy the meadows of delicate cultures, the mechanism, in the workshops of the mind is afterwards, in favourable circumstances, rotated by new power. Culture can by no means dispense with passions, vices, and malignities. When the Romans, after having become Imperial, had grown rather tired of war, they attempted to gain new strength by beast-baitings, gladiatorial combats, and Christian persecutions. The English of today, who appear on the whole to have also renounced war, adopt other means in order to generate anew those vanishing forces ; namely, the dangerous exploring expeditions, sea voyages and mountaineerings, nominally undertaken for scientific purposes, but in reality to bring home surplus strength from adventures and dangers of all kinds. Many other such substitutes for war will be discovered, but perhaps precisely thereby it will become more and more obvious that such a highly cultivated and therefore necessarily enfeebled humanity as that of modern Europe not only needs wars, but the greatest and most terrible wars, consequently occasional relapses into barbarism, lest, by the means of culture, it should lose its culture and its very existence.

478.

INDUSTRY IN THE SOUTH AND THE NORTH.—Industry arises in two entirely different ways. The artisans of the South are not industrious because of acquisitiveness but because of the constant needs of others. The smith is industrious because some one is always coming who wants a horse shod or a carriage mended. If nobody came he would loiter about in the market-place. In a fruitful land he has little trouble in supporting himself, for that purpose he requires only a very small amount of work, certainly no industry; eventually he would beg and be contented. The industry of English workmen, on the contrary, has acquisitiveness behind it; it is conscious of itself and its aims ; with property it wants power, and with power the greatest possible liberty and individual distinction.

479.

WEALTH AS THE ORIGIN OF A NOBILITY OF RACE.—Wealth necessarily creates an aristocracy of race, for it permits the choice of the most beautiful women and the engagement of the best teachers ; it allows a man cleanliness, time for physical exercises, and, above all, immunity from dulling physical labour. So far it provides all the conditions for making man, after a few generations, move and even act nobly and handsomely: greater freedom of character and absence of niggardliness, of wretchedly petty matters, and of abasement before bread-givers. It is precisely these negative qualities which are the most profitable birthday gift, that of happiness, for the young man; a person who is quite poor usually comes to grief through nobility of disposition, he does not get on, and acquires nothing, his race is not capable of living. In this connection, however, it must be remembered that wealth produces almost the same effects whether one have three hundred or thirty thousand thalers a year; there is no further essential progression of the favourable conditions afterwards. But to have less, to beg in boyhood and to abase one's self is terrible, although it may be the proper starting-point for such as seek their happiness in the splendour of courts, in subordination to the mighty and influential, or for such as wish to be heads of the Church. (It teaches how to slink crouching into the underground passages to favour.)

480.

ENVY AND INERTIA IN DIFFERENT COURSES.—The two opposing parties, the socialist and the national,—or whatever they may be called in the different countries of Europe,—are worthy of each other ; envy and laziness are the motive powers in each of them. In the one camp they desire to work as little as possible with their hands, in the other as little as possible with their heads ; in the latter they hate and envy prominent, self-evolving individuals, who do not willingly allow themselves to be drawn up in rank and file for the purpose of a collective effect ; in the former they hate and envy the better social caste, which is more favourably circumstanced outwardly, whose peculiar mission, the production of the highest blessings of culture, makes life inwardly all the harder and more painful. Certainly, if it be possible to make the spirit of the collective effect the spirit of the higher classes of society, the socialist crowds are quite right, when they also seek outward equalisation between themselves and these classes, since they are certainly internally equalised with one another already in head and heart. Live as higher men, and

always do the deeds of higher culture,—thus everything that lives will acknowledge your right, and the order of society, whose summit ye are, will be safe from every evil glance and attack!

481.

HIGH POLITICS AND THEIR DETRIMENTS.—Just as a nation does not suffer the greatest losses that war and readiness for war involve through the expenses of the war, or the stoppage of trade and traffic, or through the maintenance of a standing army, however great these losses may now be, when eight European States expend yearly the sum of five milliards of marks thereon,—but owing to the fact that year after year its ablest, strongest, and most industrious men are withdrawn in extraordinary numbers from their proper occupations and callings to be turned into soldiers: in the same way, a nation that sets about practising high politics and securing a decisive voice among the great Powers does not suffer its greatest losses where they are usually supposed to be. In fact, from this time onward it constantly sacrifices a number of its most conspicuous talents upon the "Altar of the Fatherland" or of national ambition, whilst formerly other spheres of activity were open to those talents which are now swallowed up by politics. But apart from these public hecatombs, and in reality much more horrible, there is a drama which is constantly being performed simultaneously in a hundred thousand acts; every able, industrious, intellectually striving man of a nation that thus covets political laurels, is swayed by this covetousness, and no longer belongs entirely to himself alone as he did formerly; the new daily questions and cares of the public welfare devour a daily tribute of the intellectual and emotional capital of every citizen; the sum of all these sacrifices and losses of individual energy and labour is so enormous, that the political growth of a nation almost necessarily entails an intellectual impoverishment and lassitude, a diminished capacity for the performance of works that require great concentration and specialisation. The question may finally be asked: "Does it then *pay*, all this bloom and magnificence of the total (which indeed only manifests itself as the fear of the new Colossus in other nations, and as the compulsory favouring by them of national trade and commerce) when all the nobler, finer, and more intellectual plants and products, in which its soil was hitherto so rich, must be sacrificed to this coarse and opalescent flower of the nation?"^[24]

482.

REPEATED ONCE MORE.—Public opinion—private laziness.

NINTH DIVISION - Man Alone By Himself

483.

THE ENEMIES OF TRUTH.—Convictions are more dangerous enemies of truth than lies.

484.

A TOPSY-TURVY WORLD.—We criticise a thinker more severely when he puts an unpleasant statement before us; and yet it would be more reasonable to do so when we find his statement pleasant.

485.

DECIDED CHARACTER.—A man far oftener appears to have a decided character from persistently following his temperament than from persistently following his principles.

486.

THE ONE THING NEEDFUL.—One thing a man must have: either a naturally light disposition or a disposition *lightened* by art and knowledge.

487.

THE PASSION FOR THINGS.—Whoever sets his passion on things (sciences, arts, the common weal, the interests of culture) withdraws much fervour from his passion for persons (even when they are the representatives of those things; as states men, philosophers, and artists are the representatives of their creations).

488.

CALMNESS IN ACTION.—As a cascade in its descent becomes more deliberate and suspended, so the great man of action usually acts with *more* calmness than his strong passions previous to action would lead one to expect.

489.

NOT TOO DEEP.—Persons who grasp a matter in all its depth seldom remain permanently true to it. They have just brought the depth up into the light, and there is always much evil to be seen there.

490.

THE ILLUSION OF IDEALISTS.—All idealists imagine that the cause which they serve is essentially better than all other causes, and will not believe that if their cause is really to flourish it requires precisely the same evil-smelling manure which all other human undertakings have need of.

491.

SELF-OBSERVATION.—Man is exceedingly well protected from himself and guarded against his self-exploring and self-besieging; as a rule he can perceive nothing of himself but his outworks. The actual fortress is inaccessible, and even in visible, to him, unless friends and enemies become traitors and lead him inside by secret paths.

492.

THE RIGHT CALLING.—Men can seldom hold on to a calling unless they believe or persuade themselves that it is really more important than any other. Women are the same with their lovers.

493.

NOBILITY OF DISPOSITION.—Nobility of disposition consists largely in good-nature and absence of distrust, and therefore contains precisely that upon which money-grabbing and successful men take a pleasure in walking with superiority and scorn.

494.

GOAL AND PATH.—Many are obstinate with regard to the once-chosen path, few with regard to the goal.

495.

THE OFFENSIVENESS IN AN INDIVIDUAL WAY OF LIFE.—All specially individual lines of conduct excite irritation against him who adopts them; people feel themselves reduced to the level of commonplace creatures by the extra ordinary treatment he bestows on himself.

496.

THE PRIVILEGE OF GREATNESS.—It is the privilege of greatness to confer intense happiness with insignificant gifts.

497.

UNINTENTIONALLY NOBLE.—A person behaves with unintentional nobleness when he has accustomed himself to seek naught from others and always to give to them.

498.

A CONDITION OF HEROISM.—When a person wishes to become a hero, the serpent must previously have become a dragon, otherwise he lacks his proper enemy.

499.

FRIENDS.—Fellowship in joy, and not sympathy in sorrow, makes people friends.

500.

MAKING USE OF EBB AND FLOW.—For the purpose of knowledge we must know how to make use of the inward current which draws us towards a thing, and also of the current which after a time draws us away from it.

501.

JOY IN ITSELF.—"Joy in the Thing"; people say; but in reality it is joy in itself by means of the thing.

502.

THE UNASSUMING MAN.—He who is unassuming towards persons manifests his presumption all the more with regard to things (town, State, society, time, humanity). That is his revenge.

503.

ENVY AND JEALOUSY.—Envy and jealousy are the pudenda of the human soul. The comparison may perhaps be carried further.

504.

THE NOBLEST HYPOCRITE.—It is a very noble hypocrisy not to talk of one's self at all.

505.

VEXATION.—Vexation is a physical disease, which is not by any means cured when its cause is subsequently removed.

506.

THE CHAMPIONS OF TRUTH. Truth does not find fewest champions when it is dangerous to speak it, but when it is dull.

507.

MORE TROUBLESOME EVEN THAN ENEMIES.—Persons of whose sympathetic attitude we are not, in all circumstances, convinced, while for some reason or other (gratitude, for instance) we are obliged to maintain the appearance of unqualified sympathy with them, trouble our imagination far more than our enemies do.

508.

FREE NATURE.—We are so fond of being out among Nature, because it has no opinions about us.

509.

EACH SUPERIOR IN ONE THING.—In civilised intercourse every one feels himself superior to all others in at least one thing; kindly feelings generally are based thereon, inasmuch as every one can, in certain circumstances, render help, and is therefore entitled to accept help without shame.

510.

CONSOLATORY ARGUMENTS.—In the case of a death we mostly use consolatory arguments not so much to alleviate the grief as to make excuses for feeling so easily consoled.

511.

PERSONS LOYAL TO THEIR CONVICTIONS.—Whoever is very busy retains his general views and opinions almost unchanged. So also does every one who labours in the service of an idea; he will nevermore examine the idea itself, he no longer has any time to do so; indeed, it is against his interests to consider it as still admitting of discussion.

512.

MORALITY AND QUANTITY.—The higher morality of one man as compared with that of another, often lies merely in the fact that his aims are quantitatively greater. The other, living in a circumscribed sphere, is dragged down by petty occupations.

513.

"THE LIFE" AS THE PROCEEDS OF LIFE.—A man may stretch himself out ever so far with his knowledge; he may seem to himself ever so objective, but eventually he realises nothing therefrom but his own biography.

514.

IRON NECESSITY.—Iron necessity is a thing which has been found, in the course of history, to be neither iron nor necessary.

515.

EXPERIENCE.—The unreasonableness of a thing is no argument against its existence, but rather a condition thereof.

516.

TRUTH.—Nobody dies nowadays of fatal truths, there are too many antidotes to them.

517.

A FUNDAMENTAL INSIGHT.—There is no pre-established harmony between the promotion of truth and the welfare of mankind.

518.

MAN'S LOT.—He who thinks most deeply knows that he is always in the wrong, however he may act and decide.

519.

TRUTH AS CIRCE.—Error has made animals into men; is truth perhaps capable of making man into an animal again?

520.

THE DANGER OF OUR CULTURE.—We belong to a period of which the culture is in danger of being destroyed by the appliances of culture.

521.

GREATNESS MEANS LEADING THE WAY.—No stream is large and copious of itself, but becomes great by receiving and leading on so many tributary streams. It is so, also, with all intellectual greatneses. It is only a question of some one indicating the direction to be followed by so many affluents; not whether he was richly or poorly gifted originally.

522.

A FEEBLE CONSCIENCE.—People who talk about their importance to mankind have a feeble conscience for common bourgeois rectitude, keeping of contracts, promises, etc.

523.

DESIRING TO BE LOVED.—The demand to be loved is the greatest of presumptions.

524.

CONTEMPT FOR MEN.—The most unequivocal sign of contempt for man is to regard everybody merely as a means to *one's own* ends, or of no account whatever.

525.

PARTISANS THROUGH CONTRADICTION.—Whoever has driven men to fury against himself has also gained a party in his favour.

526.

FORGETTING EXPERIENCES.—Whoever thinks much and to good purpose easily forgets his own experiences, but not the thoughts which these experiences have called forth.

527.

STICKING TO AN OPINION.—One person sticks to an opinion because he takes pride in having acquired it himself,—another sticks to it because he has learnt it with difficulty and is proud of having understood it; both of them, therefore, out of vanity.

528.

AVOIDING THE LIGHT.—Good deeds avoid the light just as anxiously as evil deeds; the latter fear that pain will result from publicity (as punishment), the former fear that pleasure will vanish with publicity (the pure pleasure *per*

se, which ceases as soon as satisfaction of vanity is added to it).

529.

THE LENGTH OF THE DAY.—When one has much to put into them, a day has a hundred pockets.

530.

THE GENIUS OF TYRANNY.—When an invincible desire to obtain tyrannical power has been awakened in the soul, and constantly keeps up its fervour, even a very mediocre talent (in politicians, artists, etc.) gradually becomes an almost irresistible natural force.

531.

THE ENEMY'S LIFE.—He who lives by fighting with an enemy has an interest in the preservation of the enemy's life.^[25]

532.

MORE IMPORTANT.—Unexplained, obscure matters are regarded as more important than explained, clear ones.

533.

VALUATION OF SERVICES RENDERED.—We estimate services rendered to us according to the value set on them by those who render them, not according to the value they have for us.

534.

UNHAPPINESS.—The distinction associated with unhappiness (as if it were a sign of stupidity, unambitiousness, or commonplaceness to feel happy) is so great that when any one says to us, "How happy you are!"; we usually protest.

535.

IMAGINATION IN ANGUISH.—When one is afraid of anything, one's imagination plays the part of that evil spirit which springs on one's back just when one has the heaviest load to bear.

536.

THE VALUE OF INSIPID OPPONENTS.—We sometimes remain faithful to a cause merely because its opponents never cease to be insipid.

537.

THE VALUE OF A PROFESSION.—A profession makes us thoughtless; that is its greatest blessing. For it is a bulwark behind which we are permitted to withdraw when commonplace doubts and cares assail us.

538.

TALENT.—Many a man's talent appears less than it is, because he has always set himself too heavy tasks.

539.

YOUTH.—Youth is an unpleasant period; for then it is not possible or not prudent to be productive in any sense whatsoever.

540.

Too GREAT AIMS.—Whoever aims publicly at great things and at length perceives secretly that he is too weak to achieve them, has usually also insufficient strength to renounce his aims publicly, and then inevitably becomes a hypocrite.

541.

IN THE CURRENT.—Mighty waters sweep many stones and shrubs away with them; mighty spirits many foolish and confused minds.

542.

THE DANGERS OF INTELLECTUAL EMANCIPATION.—In a seriously intended intellectual emancipation a person's mute passions and cravings also hope to find their advantage.

543.

THE INCARNATION OF THE MIND.—When any one thinks much and to good purpose, not only his face but also his body acquires a sage look.

544.

SEEING BADLY AND HEARING BADLY.—The man who sees little always sees less than there is to see; the man who hears badly always hears something more than there is to hear.

545.

SELF-ENJOYMENT IN VANITY.—The vain man does not wish so much to be prominent as to feel himself prominent; he therefore disdains none of the expedients for self-deception and self-out-witting. It is not the opinion of others that he sets his heart on, but his opinion of their opinion.

546.

EXCEPTIONALLY VAIN.—He who is usually self-sufficient becomes exceptionally vain, and keenly alive to fame and praise when he is physically ill. The more he loses himself the more he has to endeavour to regain his position by means of the opinion of others.

547.

THE "WITTY."—Those who seek wit do not possess it.

548.

A HINT TO THE HEADS OF PARTIES.—When one can make people publicly support a cause they have also generally been brought to the point of inwardly declaring themselves in its favour, because they wish to be regarded as consistent.

549.

CONTEMPT.—Man is more sensitive to the contempt of others than to self-contempt.

550.

THE TIE OF GRATITUDE.—There are servile souls who carry so far their sense of obligation for benefits received that they strangle themselves with the tie of gratitude.

551.

THE PROPHET'S KNACK.—In predicting beforehand the procedure of ordinary individuals, it must be taken for granted that they always make use of the smallest intellectual expenditure in freeing themselves from disagreeable situations.

552.

MAN'S SOLE RIGHT.—He who swerves from the traditional is a victim of the unusual ; he who keeps to the traditional is its slave. The man is ruined in either case.

553.

BELOW THE BEAST.—When a man roars with laughter he surpasses all the animals by his vulgarity.

554.

PARTIAL KNOWLEDGE.—He who speaks a foreign language imperfectly has more enjoyment therein than he who speaks it well. The enjoyment is with the partially initiated.

555.

DANGEROUS HELPFULNESS.—There are people who wish to make human life harder for no other reason than to be able afterwards to offer men their life-alleviating recipes—their Christianity, for example.

556.

INDUSTRIOUSNESS AND CONSCIENTIOUSNESS.—Industriousness and conscientiousness are often antagonists, owing to the fact that industriousness wants to pluck the fruit sour from the tree while conscientiousness wants to let it hang too long, until it falls and is bruised.

557.

CASTING SUSPICION.—We endeavour to cast suspicion on persons whom we cannot endure.

558.

THE CONDITIONS ARE LACKING.—Many people wait all their lives for the opportunity to be good in *their own way*.

559.

LACK OF FRIENDS.—Lack of friends leads to the inference that a person is envious or presumptuous. Many a man owes his friends merely to the fortunate circumstance that he has no occasion for envy.

560.

DANGER IN MANIFOLDNESS.—With one talent more we often stand less firmly than with one less; just as a table stands better on three feet than on four.

561.

AN EXEMPLAR FOR OTHERS.—Whoever wants to set a good example must add a grain of folly to his virtue ; people then imitate their exemplar and at the same time raise themselves above him, a thing they love to do.

562.

BEING A TARGET.—The bad things others say about us are often not really aimed at us, but are the manifestations of spite or ill-humour occasioned by quite different causes.

563.

EASILY RESIGNED. We suffer but little on account of ungratified wishes if we have exercised our imagination in distorting the past.

564.

IN DANGER.—One is in greatest danger of being run over when one has just got out of the way of a carriage.

565.

THE ROLE ACCORDING TO THE VOICE.—Whoever is obliged to speak louder than he naturally does (say, to a partially deaf person or before a large audience), usually exaggerates what he has to communicate. Many a one becomes a conspirator, malevolent gossip, or intriguer, merely because his voice is best suited for whispering,

566.

LOVE AND HATRED.—Love and hatred are not blind, but are dazzled by the fire which they carry about with them.

567.

ADVANTAGEOUSLY PERSECUTED.—People who cannot make their merits perfectly obvious to the world endeavour to awaken a strong hostility against themselves. They have then the consolation of thinking that this hostility stands between their merits and the acknowledgment thereof—and that many others think the same thing, which is very advantageous for their recognition.

568.

CONFESSION.—We forget our fault when we have confessed it to another person, but he does not generally forget it.

569.

SELF-SUFFICIENCY.—The Golden Fleece of self-sufficiency is a protection against blows, but not against needle-pricks.

570.

SHADOWS IN THE FLAME.—The flame is not so bright to itself as to those whom it illuminates,—so also the wise man.

571.

OUR OWN OPINIONS.—The first opinion that occurs to us when we are suddenly asked about anything is not usually our own, but only the current opinion belonging to our caste, position, or family ; our own opinions seldom float on the surface.

572.

THE ORIGIN OF COURAGE.—The ordinary man is as courageous and invulnerable as a hero when he does not see the danger, when he has no eyes for it. Reversely, the hero has his one vulnerable spot upon the back, where he has no eyes.

573.

THE DANGER IN THE PHYSICIAN.—One must be born for one's physician, otherwise one comes to grief through him.

574.

MARVELLOUS VANITY.—Whoever has courageously prophesied the weather three times and has been successful in his hits, acquires a certain amount of inward confidence in his prophetic gift. We give credence to the marvellous and irrational when it flatters our self-esteem.

575.

A PROFESSION.—A profession is the backbone of life.

576.

THE DANGER OF PERSONAL INFLUENCE.—Whoever feels that he exercises a great inward influence over another person must give him a perfectly free rein, must, in fact, welcome and even induce occasional opposition, otherwise he will inevitably make an enemy.

577.

RECOGNITION OF THE HEIR.—Whoever has founded something great in an unselfish spirit is careful to rear heirs for his work. It is the sign of a tyrannical and ignoble nature to see opponents in all possible heirs, and to live in a state of self-defence against them.

578.

PARTIAL KNOWLEDGE.—Partial knowledge is more triumphant than complete knowledge; it takes things to be simpler than they are, and so makes its theory more popular and convincing.

579.

UNSUITABLE FOR A PARTY-MAN.—Whoever thinks much is unsuitable for a party-man; his thinking leads him too quickly beyond the party.

580.

A BAD MEMORY.—The advantage of a bad memory is that one enjoys several times the same good things for the first time.

581.

SELF-AFFLICTION.—Want of consideration is often the sign of a discordant inner nature, which craves for stupefaction.

582.

MARTYRS.—The disciples of a martyr suffer more than the martyr.

583.

ARREARS OF VANITY.—The vanity of many people who have no occasion to be vain is the inveterate habit, still surviving from the time when people had no right to the belief in them selves and only begged it in small sums from others.

584.

PUNCTUM SALIENS OF PASSION.—A person falling into a rage or into a violent passion of love reaches a point when the soul is full like a hogshead, but nevertheless a drop of water has still to be added, the good will for the passion (which is also generally called the evil will). This item only is necessary, and then the hogs head overflows.

585.

A GLOOMY THOUGHT.—It is with men as with the charcoal fires in the forest. It is only when young men have cooled down and have got charred, like these piles, that they become *useful*. As long as they fume and smoke they are perhaps more interesting, but they are useless and too often uncomfortable. Humanity ruthlessly uses every individual as material for the heating of its great machines; but what then is the purpose of the machines, when all individuals (that is, the human race) are useful only to maintain them? Machines that are ends in themselves: is that the *umana commedia*?

586.

THE HOUR-HAND OF LIFE.—Life consists of rare single moments of the greatest importance, and of countless intervals during which, at best, the phantoms of those moments hover around us. Love, the Spring, every fine melody, the mountains, the moon, the sea—all speak but once fully to the heart, if, indeed, they ever do quite attain to speech. For many people have not those moments at all, and are themselves intervals and pauses in the symphony of actual life.

587.

ATTACK OR COMPROMISE.—We often make the mistake of showing violent enmity towards a tendency, party, or period, because we happen only to get a sight of its most exposed side, its stuntedness, or the inevitable "faults of its virtues,"—perhaps because we ourselves have taken a prominent part in them. We then turn our backs on them and seek a diametrically opposite course ; but the better way would be to seek out their strong good sides, or to develop them in ourselves. To be sure, a keener glance and a better will are needed to improve the becoming and the imperfect than are required to see through it in its imperfection and to deny it.

588.

MODESTY.—There is true modesty (that is the knowledge that we are not the works we create); and it is especially becoming in a great mind, because such a mind can well grasp the thought of absolute irresponsibility (even for the good it creates). People do not hate a great man s presumptuousness in so far as he feels his strength, but because he wishes to prove it by injuring others, by dominating them, and seeing how long they will stand it. This, as a rule, is even a proof of the absence of a secure sense of power, and makes people doubt his greatness. We must therefore beware of presumption from the stand point of wisdom.

589.

THE DAY'S FIRST THOUGHT.—The best way to begin a day well is to think, on awakening, whether we cannot give pleasure during the day to at least one person. If this could become a substitute for the religious habit of prayer our fellow-men would benefit by the change.

590.

PRESUMPTION AS THE LAST CONSOLATION.—When we so interpret a misfortune, an intellectual defect, or a disease that we see therein our predestined fate, our trial, or the mysterious punishment of our former misdeeds, we

thereby make our nature interesting and exalt ourselves in imagination above our fellows. The proud sinner is a well-known figure in all religious sects.

591.

THE VEGETATION OF HAPPINESS.—Close beside the world's woe, and often upon its volcanic soil, man has laid out his little garden of happiness. Whether one regard life with the eyes of him who only seeks knowledge therefrom, or of him who submits and is resigned, or of him who rejoices over surmounted difficulties—everywhere one will find some happiness springing up beside the evil—and in fact always the more happiness the more volcanic the soil has been, only it would be absurd to say that suffering itself is justified by this happiness.

592.

THE PATH OF OUR ANCESTORS.—It is sensible when a person develops still further in himself the talent upon which his father or grandfather spent much trouble, and does not shift to some thing entirely new ; otherwise he deprives himself of the possibility of attaining perfection in any one craft. That is why the proverb says, "Which road shouldst thou ride?—That of thine ancestors."

593.

VANITY AND AMBITION AS EDUCATORS.—As long as a person has not become an instrument of general utility, ambition may torment him; if, however, that point has been reached, if he necessarily works like a machine for the good of all, then vanity may result; it will humanise him in small matters and make him more sociable, endurable, and considerate, when ambition has completed the coarser work of making him useful.

594.

PHILOSOPHICAL NOVICES. Immediately we have comprehended the wisdom of a philosopher, we go through the streets with a feeling as if we had been re-created and had become great men; for we encounter only those who are ignorant of this wisdom, and have therefore to deliver new and unknown verdicts concerning everything. Because we now recognise a law-book we think we must also comport ourselves as judges.

595.

PLEASING BY DISPLEASING.—People who prefer to attract attention, and thereby to displease, desire the same thing as those who neither wish to please nor to attract attention, only they seek it more ardently and indirectly by means of a step by which they apparently move away from their goal. They desire influence and power, and therefore show their superiority, even to such an extent that it becomes disagreeable; for they know that he who has finally attained power pleases in almost all he says and does, and that even when he displeases he still seems to please. The free spirit also, and in like manner the believer, desire power, in order some day to please thereby; when, on account of their doctrine, evil fate, persecution, dungeon, or execution threaten them, they rejoice in the thought that their teaching will thus be engraved and branded on the heart of mankind ; though its effect is remote they accept their fate as a painful but powerful means of still attaining to power.

596.

CASUS BELLI AND THE LIKE.—The prince who, for his determination to make war against his neighbour, invents a *casus belli*, is like a father who foists on his child a mother who is hence forth to be regarded as such. And are not almost all publicly avowed motives of action just such spurious mothers?

597.

PASSION AND RIGHT.—Nobody talks more passionately of his rights than he who, in the depths of his soul, is doubtful about them. By getting passion on his side he seeks to confound his understanding and its doubts,—he thus obtains a good conscience, and along with it success with his fellow-men.

598.

THE TRICK OF THE RESIGNING ONE.—He who protests against marriage, after the manner of Catholic priests, will conceive of it in its lowest and vulgarest form. In the same way he who disavows the honour of his

contemporaries will have a mean opinion of it; he can thus dispense with it and struggle against it more easily. More over, he who denies himself much in great matters will readily indulge himself in small things. It might be possible that he who is superior to the approbation of his contemporaries would nevertheless not deny himself the gratification of small vanities.

599.

THE YEARS OF PRESUMPTION.—The proper period of presumption in gifted people is between their twenty-sixth and thirtieth years; it is the time of early ripeness, with a large residue of sourness. On the ground of what we feel within ourselves we demand honour and humility from men who see little or nothing of it, and because this tribute is not immediately forthcoming we revenge ourselves by the look, the gesture of arrogance, and the tone of voice, which a keen ear and eye recognise in every product of those years, whether it be poetry, philosophy, or pictures and music. Older men of experience smile thereat, and think with emotion of those beautiful years in which one resents the fate of *being* so much and *seeming* so little. Later on one really *seems* more,—but one has lost the good belief in *being* much,—unless one remain for life an incorrigible fool of vanity.

600.

DECEPTIVE AND YET DEFENSIBLE.—Just as in order to pass by an abyss or to cross a deep stream on a plank we require a railing, not to hold fast by, for it would instantly break down with us, but to give the notion of security to the eye, so in youth we require persons who unconsciously render us the service of that railing. It is true they would not help us if we really wished to lean upon them in great danger, but they afford the tranquillising sensation of protection close to one (for instance, fathers, teachers, friends, as all three usually are).

601.

LEARNING TO LOVE.—One must learn to love, one must learn to be kind, and this from childhood onwards; when education and chance give us no opportunity for the exercise of these feelings our soul becomes dried up, and even incapable of understanding the fine devices of loving men. In the same way hatred must be learnt and fostered, when one wants to become a proficient hater,—otherwise the germ of it will gradually die out.

602.

RUIN AS ORNAMENT.—Persons who pass through numerous mental phases retain certain sentiments and habits of their earlier states, which then project like a piece of inexplicable antiquity and grey stonework into their new thought and action, often to the embellishment of the whole surroundings.

603.

LOVE AND HONOUR.—Love desires, fear avoids. That is why one cannot be both loved and honoured by the same person, at least not at the same time.^[26] For he who honours recognises power,—that is to say, he fears it, he is in a state of reverential fear (*Ehr-furcht*). But love recognises no power, nothing that divides, detaches, superordinates, or subordinates. Because it does not honour them, ambitious people secretly or openly resent being loved.

604.

A PREJUDICE IN FAVOUR OF COLD NATURES.—People who quickly take fire grow cold quickly, and therefore are, on the whole, unreliable. For those, therefore, who are always cold, or pretend to be so, there is the favourable prejudice that they are particularly trustworthy, reliable persons ; they are confounded with those who take fire slowly and retain it long.

605.

THE DANGER IN FREE OPINIONS.—Frivolous occupation with free opinions has a charm, like a kind of itching ; if one yields to it further, one begins to chafe the places ; until at last an open, painful wound results ; that is to say, until the- free opinion begins to disturb and torment us in our position in life and in our human relations.

606.

DESIRE FOR SORE AFFLICTION.—When passion is over it leaves behind an obscure longing for it, and even in disappearing it casts a seductive glance at us. It must have afforded a kind of pleasure to have been beaten with this scourge. Compared with it, the more moderate sensations appear insipid ; we still prefer, apparently, the more violent displeasure to languid delight.

607.

DISSATISFACTION WITH OTHERS AND WITH THE WORLD.—When, as so frequently happens, we vent our dissatisfaction on others when we are really dissatisfied with ourselves, we are in fact attempting to mystify and deceive our judgment; we desire to find a motive *a posteriori* for this dissatisfaction, in the mistakes or deficiencies of others, and so lose sight of ourselves. Strictly religious people, who have been relentless judges of themselves, have at the same time spoken most ill of humanity generally; there has never been a saint who reserved sin for himself and virtue for others, any more than a man who, according to Buddha's rule, hides his good qualities from people and only shows his bad ones.

608.

CONFUSION OF CAUSE AND EFFECT.—Unconsciously we seek the principles and opinions which are suited to our temperament, so that at last it seems as if these principles and opinions had formed our character and given it support and stability, whereas exactly the contrary has taken place. Our thoughts and judgments are, apparently, to be taken subsequently as the causes of our nature, but as a matter of fact *our* nature is the cause of our so thinking and judging. And what induces us to play this almost unconscious comedy? Inertness and convenience, and to a large extent also the vain desire to be regarded as thoroughly consistent and homogeneous in nature and thought ; for this wins respect and gives confidence and power.

609.

AGE IN RELATION TO TRUTH.—Young people love what is interesting and exceptional, indifferent whether it is truth or falsehood. Riper minds love what is interesting and extraordinary when it is truth. Matured minds, finally, love truth even in those in whom it appears plain and simple and is found tiresome by ordinary people, because they have observed that truth is in the habit of giving utterance to its highest intellectual verities with all the appearance of simplicity.

610.

MEN AS BAD POETS.—Just as bad poets seek a thought to fit the rhyme in the second half of the verse, so men in the second half of life, having become more scrupulous, are in the habit of seeking pursuits, positions, and conditions which suit those of their earlier life, so that outwardly all sounds well, but their life is no longer ruled and continuously determined anew by a powerful thought: in place thereof there is merely the intention of finding a rhyme.

611.

ENNUI AND PLAY.—Necessity compels us to work, with the product of which the necessity is appeased ; the ever new awakening of necessity, however, accustoms us to work. But in the intervals in which necessity is appeased and asleep, as it were, we are attacked by ennui. What is this ? In a word it is the habituation to work, which now makes itself felt as a new and additional necessity; it will be all the stronger the more a person has been accustomed to work, perhaps, even, the more a person has suffered from necessities. In order to escape ennui, a man either works beyond the extent of his former necessities, or he invents play, that is to say, work that is only intended to appease the general necessity for work. He who has become satiated with play, and has no new necessities impelling him to work, is sometime attacked by the longing for a third state, which is related to play as gliding is to dancing, as dancing is to walking, a blessed, tranquil movement; it is the artists' and philosophers' vision of happiness.

612.

LESSONS FROM PICTURES.—If we look at a series of pictures of ourselves, from the time of later childhood to the time of mature manhood, we discover with pleased surprise that the man bears more resemblance to the child

than to the youth: that probably, therefore, in accordance with this fact, there has been in the interval a temporary alienation of the fundamental character, over which the collected, concentrated force of the man has again become master. With this observation this other is also in accordance, namely, that all strong influences of passions, teachers, and political events, which in our youthful years draw us hither and thither, seem later on to be referred back again to a fixed standard; of course they still continue to exist and operate within us, but our fundamental sentiments and opinions have now the upper hand, and use their influence perhaps as a source of strength, but are no longer merely regulative, as was perhaps the case in our twenties. Thus even the thoughts and sentiments of the man appear more in accordance with those of his childish years, and this objective fact expresses itself in the above-mentioned subjective fact.

613.

THE TONE OF VOICE OF DIFFERENT AGES.—The tone in which youths speak, praise, blame, and versify, displeases an older person because it is too loud, and yet at the same time dull and confused like a sound in a vault, which acquires such a loud ring owing to the emptiness; for most of the thought of youths does not gush forth out of the fulness of their own nature, but is the accord and the echo of what has been thought, said, praised or blamed around them. As their sentiments, however (their inclinations and aversions), resound much more forcibly than the reasons thereof, there is heard, whenever they divulge these sentiments, the dull, clanging tone which is a sign of the absence or scarcity of reasons. The tone of riper age is rigorous, abruptly concise, moderately loud, but, like everything distinctly articulated, is heard very far off. Old age, finally, often brings a certain mildness and consideration into the tone of the voice, and as it were, sweetens it; in many cases, to be sure it also sours it.

614.

THE ATAVIST AND THE FORERUNNER.—The man of unpleasant character, full of distrust, envious of the success of fellow-competitors and neighbours, violent and enraged at divergent opinions, shows that he belongs to an earlier grade of culture, and is, therefore, an atavism; for the way in which he behaves to people was right and suitable only for an age of club-law; he is an *atavist*. The man of a different character, rich in sympathy, winning friends everywhere, finding all that is growing and becoming amiable, rejoicing at the honours and successes of others and claiming no privilege of solely knowing the truth, but full of a modest distrust,—he is a forerunner who presses upward towards a higher human culture. The man of unpleasant character dates from the times when the rude basis of human intercourse had yet to be laid, the other lives on the upper floor of the edifice of culture, removed as far as possible from the howling and raging wild beast imprisoned in the cellars.

615.

CONSOLATION FOR HYPOCHONDRIACS.—When a great thinker is temporarily subjected to hypochondriacal self-torture he can say to himself, by way of consolation: "It is thine own great strength on which this parasite feeds and grows; if thy strength were smaller thou wouldst have less to suffer." The statesman may say just the same thing when jealousy and vengeful feeling, or, in a word, the tone of the *bellum omnium contra omnes*, for which, as the representative of a nation, he must necessarily have a great capacity, occasionally intrudes into his personal relations and makes his life hard.

616.

ESTRANGED FROM THE PRESENT.—There are great advantages in estranging one's self for once to a large extent from one's age, and being as it were driven back from its shores into the ocean of past views of things. Looking thence towards the coast one commands a view, perhaps for the first time, of its aggregate formation, and when one again approaches the land one has the advantage of understanding it better, on the whole, than those who have never left it.

617.

SOWING AND REAPING ON THE FIELD OF PERSONAL DEFECTS.—Men like Rousseau understand how to use their weaknesses, defects, and vices as manure for their talent. When Rousseau bewails the corruption and

degeneration of society as the evil results of culture, there is a personal experience at the bottom of it, the bitterness which gives sharpness to his general condemnation and poisons the arrows with which he shoots ; he unburdens himself first as an individual, and thinks of getting a remedy which, while benefiting society directly, will also benefit himself indirectly by means of society.

618.

PHILOSOPHICALLY MINDED.—We usually endeavour to acquire *one* attitude of mind, *one* set of opinions for all situations and events of life—it is mostly called being philosophically minded. But for the acquisition of knowledge it may be of greater importance not to make ourselves thus uniform, but to hearken to the low voice of the different situations in life; these bring their own opinions with them. We thus take an intelligent interest in the life and nature of many persons by not treating ourselves as rigid, persistent single individuals.

619.

IN THE FIRE OF CONTEMPT.—It is a fresh step towards independence when one first dares to give utterance to opinions which it is considered as disgraceful for a person to entertain; even friends and acquaintances are then accustomed to grow anxious. The gifted nature must also pass through this fire; it afterwards belongs far more to itself.

620.

SELF-SACRIFICE.—In the event of choice, a great sacrifice is preferred to a small one, because we compensate ourselves for the great sacrifice by self-admiration, which is not possible in the case of a small one.

621.

LOVE AS AN ARTIFICE.—Whoever really wishes to *become acquainted* with something new (whether it be a person, an event, or a book), does well to take up the matter with all possible love, and to avert his eye quickly from all that seems hostile, objectionable, and false therein,—in fact to forget such things; so that, for instance, he gives the author of a book the best start possible, and straightway, just as in a race, longs with beating heart that he may reach the goal. In this manner one penetrates to the heart of the new thing, to its moving point, and this is called becoming acquainted with it. This stage having been arrived at, the understanding afterwards makes its restrictions ; the over-estimation and the temporary suspension of the critical pendulum were only artifices to lure forth the soul of the matter.

622.

THINKING TOO WELL AND TOO ILL OF THE WORLD.—Whether we think too well or too ill of things, we always have the advantage of deriving therefrom a greater pleasure, for with a too good preconception we usually put more sweetness into things (experiences) than they actually contain. A too bad preconception causes a pleasant disappointment, the pleasantness that lay in the things themselves is increased by the pleasantness of the surprise. A gloomy temperament, however, will have the reverse experience in both cases.

623.

PROFOUND PEOPLE.—Those whose strength lies in the deepening of impressions—they are usually called profound people—are relatively self-possessed and decided in all sudden emergencies, for in the first moment the impression is still shallow, it only then *becomes* deep. Long foreseen, long expected events or persons, however, excite such natures most, and make them almost incapable of eventually having presence of mind on the arrival thereof.

624.

INTERCOURSE WITH THE HIGHER SELF.—Every one has his good day, when he finds his higher self; and true humanity demands that a person shall be estimated according to this state and not according to his work-days of constraint and bondage. A painter, for instance, should be appraised and honoured according to the most exalted vision he could see and represent. But men themselves commune very differently with this their higher self, and are

frequently their own playactors, in so far as they repeatedly imitate what they are in those moments. Some stand in awe and humility before their ideal, and would fain deny it; they are afraid of their higher self because, when it speaks, it speaks pretentiously. Besides, it has a ghost-like freedom of coming and staying away just as it pleases; on that account it is often called a gift of the gods, while in fact everything else is a gift of the gods (of chance); this, however, is the man himself.

625.

LONELY PEOPLE.—Some people are so much accustomed to being alone in self-communion that they do not at all compare themselves with others, but spin out their soliloquising life in a quiet, happy mood, conversing pleasantly, and even hilariously, with themselves. If, however, they are brought to the point of comparing themselves with others, they are inclined to a brooding under-estimation of their own worth, so that they have first to be compelled by others *to form* once more a good and just opinion of themselves, and even from this acquired opinion they will always want to subtract and abate something. We must not, therefore, grudge certain persons their loneliness or foolishly commiserate them on that account, as is so often done.

626.

WITHOUT MELODY. There are persons to whom a constant repose in themselves and the harmonious ordering of all their capacities is so natural that every definite activity is repugnant to them. They resemble music which consists of nothing but prolonged, harmonious accords, without even the tendency to an organised and animated melody showing itself. All external movement serves only to restore to the boat its equilibrium on the sea of harmonious euphony. Modern men usually become excessively impatient when they meet such natures, who *will never be anything* in the world, only it is not allowable to say of them that they *are nothing*. But in certain moods the sight of them raises the unusual question: "Why should there be melody at all? Why should it not suffice us when life mirrors itself peacefully in a deep lake?" The Middle Ages were richer in such natures than our times. How seldom one now meets with any one who can live on so peacefully and happily with himself even in the midst of the crowd, saying to himself, like Goethe, "The best thing of all is the deep calm in which I live and grow in opposition to the world, and gain what it cannot take away from me with fire and sword."

627.

TO LIVE AND EXPERIENCE.—If we observe how some people can deal with their experiences—their unimportant, everyday experiences—so that these become soil which yields fruit thrice a year; whilst others—and how many!—are driven through the surf of the most exciting adventures, the most diversified movements of times and peoples, and yet always remain light, always remain on the surface, like cork; we are finally tempted to divide mankind into a minority (minimality) of those who know how to make much out of little, and a majority of those who know how to make little out of much; indeed, we even meet with the counter-sorcerers who, instead of making the world out of nothing, make a nothing out of the world.

628.

SERIOUSNESS IN PLAY.—In Genoa one evening, in the twilight, I heard from a tower a long chiming of bells; it was never like to end, and sounded as if insatiable above the noise of the streets, out into the evening sky and sea-air, so thrilling, and at the same time so childish and so sad. I then remembered the words of Plato, and suddenly felt the force of them in my heart: "*Human matters, one and all, are not worthy of great seriousness; nevertheless ...*"

629.

CONVICTION AND JUSTICE.—The requirement that a person must afterwards, when cool and sober, stand by what he says, promises, and resolves during passion, is one of the heaviest burdens that weigh upon mankind. To have to acknowledge for all future time the consequences of anger, of fiery revenge, of enthusiastic devotion, may lead to a bitterness against these feelings proportionate to the idolatry with which they are idolised, especially by artists. These cultivate to its full extent the *esteem of the passions*, and have always done so; to be sure, they also glorify the terrible satisfaction of the passions which a person affords himself, the outbreaks of vengeance, with

death, mutilation, or voluntary banishment in their train, and the resignation of the broken heart. In any case they keep alive curiosity about the passions; it is as if they said: "Without passions you have no experience whatever." Because we have sworn fidelity (perhaps even to a purely fictitious being, such as a god), because we have surrendered our heart to a prince, a party, a woman, a priestly order, an artist, or a thinker, in a state of infatuated delusion that threw a charm over us and made those beings appear worthy of all veneration, and every sacrifice—are we, therefore, firmly and inevitably bound? Or did we not, after all, deceive ourselves then? Was there not a hypothetical promise, under the tacit presupposition that those beings to whom we consecrated ourselves were really the beings they seemed to be in our imagination? Are we under obligation to be faithful to our errors, even with the knowledge that by this fidelity we shall cause injury to our higher selves? No, there is no law, no obligation of that sort; we *must* become traitors, we must act unfaithfully and abandon our ideals again and again. We cannot advance from one period of life into another without causing these pains of treachery and also suffering from them. Might it be necessary to guard against the ebullitions of our feelings in order to escape these pains? Would not the world then become too arid, too ghost-like for us? Rather will we ask ourselves whether these pains are *necessary* on a change of convictions, or whether they do not depend on a *mistaken* opinion and estimate. Why do we admire a person who remains true to his convictions and despise him who changes them? I fear the answer must be, "because every one takes for granted that such a change is caused only by motives of more general utility or of personal trouble." That is to say, we believe at bottom that nobody alters his opinions as long as they are advantageous to him, or at least as long as they do not cause him any harm. If it is so, however, it furnishes a bad proof of the *intellectual* significance of all convictions. Let us once examine how convictions arise, and let us see whether their importance is not greatly over-estimated; it will thereby be seen that the change of convictions also is in all circumstances judged according to a false standard, that we have hitherto been accustomed to suffer too much from this change.

630.

Conviction is belief in the possession of absolute truth on any matter of knowledge. This belief takes it for granted, therefore, that there are absolute truths; also, that perfect methods have been found for attaining to them; and finally, that every one who has convictions makes use of these perfect methods. All three notions show at once that the man of convictions is not the man of scientific thought; he seems to us still in the age of theoretical innocence, and is practically a child, however grown-up he may be. Whole centuries, however, have been lived under the influence of those childlike presuppositions, and out of them have flowed the mightiest sources of human strength. The countless numbers who sacrificed themselves for their convictions believed they were doing it for the sake of absolute truth. They were all wrong, however; probably no one has, ever sacrificed himself for Truth; at least, the dogmatic expression of the faith of any such person has been unscientific or only partly scientific. But really, people wanted to carry their point because they believed that they *must be* in the right. To allow their belief to be wrested from them probably meant calling in question their eternal salvation. In an affair of such extreme importance the "will" was too audibly the prompter of the intellect. The presupposition of every believer of every shade of belief has been that he *could not* be confuted; if the counter-arguments happened to be very strong, it always remained for him to decry intellect generally, and, perhaps, even to set up the "*credo quia absurdum est*" as the standard of extreme fanaticism. It is not the struggle of opinions that has made history so turbulent; but the struggle of belief in opinions,—that is to say, of convictions. If all those who thought so highly of their convictions, who made sacrifices of all kinds for them, and spared neither honour, body, nor life in their service, had only devoted half of their energy to examining their right to adhere to this or that conviction and by what road they arrived at it, how peaceable would the history of mankind now appear! How much more knowledge would there be! All the cruel scenes in connection with the persecution of heretics of all kinds would have been avoided, for two reasons: firstly, because the inquisitors would above all have inquired of themselves, and would have recognised the presumption of defending absolute truth; and secondly, because the heretics themselves would, after examination, have taken no more interest in such badly established" doctrines as those of all religious sectarians and "orthodox" believers.

631.

From the ages in which it was customary to believe in the possession of absolute truth, people have inherited a profound *dislike* of all sceptical and relative attitudes with regard to questions of knowledge; they mostly prefer to acquiesce, for good or evil, in the convictions of those in authority (fathers, friends, teachers, princes), and they have a kind of remorse of conscience when they do not do so. This tendency is quite comprehensible, and its results furnish no ground for condemnation of the course of the development of human reason. The scientific spirit in man, however, has gradually to bring to maturity the virtue of *cautious forbearance*, the wise moderation, which is better known in practical than in theoretical life, and which, for instance, Goethe has represented in "Antonio," as an object of provocation for all Tassos,—that is to say, for unscientific and at the same time inactive natures. The man of convictions has in himself the right not to comprehend the man of cautious thought, the theoretical Antonio; the scientific man, on the other hand, has no right to blame the former on that account, he takes no notice thereof, and knows, moreover, that in certain cases the former will yet cling to him, as Tasso finally clung to Antonio.

632.

He who has not passed through different phases of conviction, but sticks to the faith in whose net he was first caught, is, under all circumstances, just on account of this unchangeableness, a representative of *atavistic* culture; in accordance with this lack of culture (which always presupposes plasticity for culture), he is severe, unintelligent, unteachable, without liberality, an ever suspicious person, an unscrupulous person who has recourse to all expedients for enforcing his opinions because he cannot conceive that there must be other opinions; he is, in such respects, perhaps a source of strength, and even wholesome in cultures that have become too emancipated and languid, but only because he strongly incites to opposition: for thereby the delicate organisation of the new culture, which is forced to struggle with him, becomes strong itself.

633.

In essential respects we are still the same men as those of the time of the Reformation; how could it be otherwise? But the fact that we *no longer* allow ourselves certain means for promoting the triumph of our opinions distinguishes us from that age, and proves that we belong to a higher culture. He who still combats and overthrows opinions with calumnies and outbursts of rage, after the manner of the Reformation men, obviously betrays the fact that he would have burnt his adversaries had he lived in other times, and that he would have resorted to all the methods of the Inquisition if he had been an opponent of the Reformation. The Inquisition was rational at that time; for it represented nothing else than the universal application of martial law, which had to be proclaimed throughout the entire domain of the Church, and which, like all martial law, gave a right to the extremest methods, under the presupposition, of course, (which we now no longer share with those people), that the Church *possessed* truth and had to preserve it at all costs, and at any sacrifice, for the salvation of mankind. Now, however, one does not so readily concede to any one that he possesses the truth; strict methods of investigation have diffused enough of distrust and precaution, so that every one who violently advocates opinions in word and deed is looked upon as an enemy of our modern culture, or, at least, as an atavist. As a matter of fact the pathos that man possesses truth is now of very little consequence in comparison with the certainly milder and less noisy pathos of the search for truth, which is never weary of learning afresh and examining anew.

634.

Moreover, the methodical search for truth is itself the outcome of those ages in which convictions were at war with each other. If the individual had not cared about *his* "truth," that is to say, about carrying his point, there would have been no method of investigation; thus, however, by the eternal struggle of the claims of different individuals to absolute truth, people went on step by step to find irrefragable principles according to which the rights of the claims could be tested and the dispute settled. At first people decided according to authorities; later on they criticised one another's ways and means of finding the presumed truth; in the interval there was a period when people deduced the consequences of the adverse theory, and perhaps found them to be productive of injury and unhappiness; from which it was then to be inferred by every one that the conviction of the adversary involved an error. The *personal struggle of the thinker* at last so sharpened his methods that real truths could be discovered, and the mistakes of

former methods exposed before the eyes of all.

635.

On the whole, scientific methods are at least as important results of investigation as any other results, for the scientific spirit is based upon a knowledge of method, and if the methods were lost, all the results of science could not prevent the renewed prevalence of superstition and absurdity. Clever people may *learn* as much as they like of the results of science, but one still notices in their conversation, and especially in the hypotheses they make, that they lack the scientific spirit; they have not the instinctive distrust of the devious courses of thinking which, in consequence of long training, has taken root in the soul of every scientific man. It is enough for them to find any kind of hypothesis on a subject, they are then all on fire for it, and imagine the matter is thereby settled. To have an opinion is with them equivalent to immediately becoming fanatical for it, and finally taking it to heart as a conviction. In the case of an unexplained matter they become heated for the first idea that comes into their head which has any resemblance to an explanation—a course from which the worst results constantly follow, especially in the field of politics. On that account everybody should nowadays have become thoroughly acquainted with at least *one* science, for then surely he knows what is meant by method, and how necessary is the extremest carefulness. To women in particular this advice is to be given at present; as to those who are irretrievably the victims of all hypotheses, especially when these have the appearance of being witty, attractive, enlivening, and invigorating. Indeed, on close inspection one sees that by far the greater number of educated people still desire convictions from a thinker and nothing but *convictions*, and that only a small minority want *certainty*. The former want to be forcibly carried away in order thereby to obtain an increase of strength; the latter few have the real interest which disregards personal advantages and the increase of strength also. The former class, who greatly predominate, are always reckoned upon when the thinker comports himself and labels himself as a *genius*, and thus views himself as a higher being to whom authority belongs. In so far as genius of this kind upholds the ardour of convictions, and arouses distrust of the cautious and modest spirit of science, it is an enemy of truth, however much it may think itself the wooer thereof.

636.

There is, certainly, also an entirely different species of genius, that of justice ; and I cannot make up my mind to estimate it lower than any kind of philosophical, political, or artistic genius. Its peculiarity is to go, with heartfelt aversion, out of the way of everything that blinds and confuses people's judgment of things ; it is consequently an *adversary of convictions*, for it wants to give their own to all, whether they be living or dead, real or imaginary—and for that purpose it must know thoroughly; it therefore places everything in the best light and goes around it with careful eyes. Finally, it will even give to its adversary the blind or short-sighted "conviction" (as men call it,—among women it is called "faith"), what is due to conviction for the sake of truth.

637.

Opinions evolve out of *passions*; *indolence of intellect* allows those to congeal into *convictions*. He, however, who is conscious of himself as a *free*, restless, lively spirit can prevent this congelation by constant change; and if he is altogether a thinking snowball, he will not have opinions in his head at all, but only certainties and properly estimated probabilities. But we, who are of a mixed nature, alternately inspired with ardour and chilled through and through by the intellect, want to kneel before justice, as the only goddess we acknowledge, The *fire* in us generally makes us unjust, and impure in the eyes of our goddess ; in this condition we are not permitted to take her hand, and the serious smile of her approval never rests upon us. We reverence her as the veiled Isis of our life ; with shame we offer her our pain as penance and sacrifice when the fire threatens to burn and consume us. It is the *intellect* that saves us from being utterly burnt and reduced to ashes ; it occasionally drags us away from the sacrificial altar of justice or enwraps us in a garment of asbestos. Liberated from the fire, and impelled by the intellect, we then pass from opinion to opinion, through the change of parties, as noble *betrayers* of all things that can in any way be betrayed—and nevertheless without a feeling of guilt.

638.

THE WANDERER.—He who has attained intellectual emancipation to any extent cannot, for a long time, regard himself otherwise than as a wanderer on the face of the earth and not even as a traveller *towards* a final goal, for there is no such thing. But he certainly wants to observe and keep his eyes open to whatever actually happens in the world ; therefore he cannot attach his heart too firmly to anything individual ; he must have in himself something wandering that takes pleasure in change and transitoriness. To be sure such a man will have bad nights, when he is weary and finds the gates of the town that should offer him rest closed ; perhaps he may also find that, as in the East, the desert reaches to the gates, that wild beasts howl far and near, that a strong wind arises, and that robbers take away his beasts of burden. Then the dreadful night closes over him like a second desert upon the desert, and his heart grows weary of wandering. Then when the morning sun rises upon him, glowing like a Deity of anger, when the town is opened, he sees perhaps in the faces of the dwellers therein still more desert, uncleanliness, deceit, and insecurity than outside the gates—and the day is almost worse than the night. Thus it may occasionally happen to the wanderer but then there come as compensation the delightful mornings of other lands and days, when already in the grey of the dawn he sees the throng of muses dancing by, close to him, in the mist of the mountain ; when afterwards, in the symmetry of his ante-meridian soul, he strolls silently under the trees, out of whose crests and leafy hiding-places all manner of good and bright things are flung to him, the gifts of all the free spirits who are at home in mountains, forests, and solitudes, and who, like himself, alternately merry and thoughtful, are wanderers and philosophers. Born of the secrets of the early dawn, they ponder the question how the day, between the hours of ten and twelve, can have such a pure, transparent, and gloriously cheerful countenance : they seek the *ante-meridian* philosophy.

AN EPODE - Among Friends.

(Translated by T. COMMON.)

I.

NICE, when mute we lie a-dreaming,
 Nicer still when we are laughing,
 'Neath the sky heaven's chariot speeding,
 On the moss the book a-reading,
 Sweetly loud with friends all laughing
 Joyous, with white teeth a-gleaming.
 Do I well, we're mute and humble;
 Do I ill—we'll laugh exceeding;
 Make it worse and worse, unheeding,
 Worse proceeding, more laughs needing,
 Till into the grave we stumble.
 Friends! Yea! so shall it obtain?
 Amen! Till we meet again.

II.

No excuses need be started!
 Give, ye glad ones, open hearted,
 To this foolish book before you
 Ear and heart and lodging meet;
 Trust me, 'twas not meant to bore you,
 Though of folly I may treat!
 What I find, seek, and am needing,
 Was it e'er in book for reading?


Honour now fools in my name,
 Learn from out this book by reading
 How "our sense" from reason came.
 Thus, my friends, shall it obtain?
 Amen! Till we meet again.

Notes


- [1] Ecce Homo p. 75.
- [2] "Tender poetry, like rainbows, can appear only on a dark and sombre background."—J. M. K.
- [3] An allusion to the mediæval Latin distich :
 O si tacuisses,
 Philosophus mansisses,—J. M. K.
- [4] Dr. Paul Rée.—J. M. K.
- [5] Dr. Paul Rée. J. M. K.
- [6] This is the untranslatable word *Schadenfreude*, which means joy at the misfortune of others, J. M. K.
- [7] Why harass with eternal designs a mind too weak to compass them ? Why do we not, as we lie beneath a lofty plane-tree or this pine [drink while we may] ? HOR., Odes II. ii. 11-14. J. M. K.
- [8] " All greatest sages of all latest ages Will chuckle and slyly agree, 'Tis folly to wait till a fool's empty pate Has learnt to be knowing and free :
 So children of wisdom, make use of the fools And use them whenever you can as your tools." J.M.K
- [9] It may be remembered that the cross was the gallows of the ancient world. J. M. K.
- [10] This may give us one of the reasons for the religiosity still happily prevailing in England and the United States, —J. M. K.
- [11] The allusion is to Goethe's lines : *Die Sterne, die begehrt man nicht, Man freut sich ihrer Pracht*. We do not want the stars themselves, Their brilliancy delights our hearts.—J. M. K.
- [12] "to the greater glory of art"
- [13] compensate for the deliverances of fate
- [14] Beethoven's piano sonata no. 29 in B flat major, Op. 106, "Hammerklavier."
- [15] Beyond Good and Evil, 63: "Whoever is a teacher through and through takes all things seriously only in relation to his students—even himself."
- [16] Poetics, 1449b; Politics, 1341b
- [17] Goethe, *Der Bräutigam*: "Wie es auch sei, das Leben, es ist gut."
- [18] This may remind one of Gobineau's more jocular saying : "*Nous ne descendons pas du singe, mais nous y allons?*" -J. M. K.
- [19] This refers to his essay, "Schopenhauer as Educator," in *Thoughts Out of Season*, vol. ii. of the English edition.—J. M. K.
- [20] For it is when loving that mortal man gives of his best.—J. M. K.
- [21] The opposite of this aphorism also holds good. J. M. K.
- [22] It may be remarked that Nietzsche changed his view on this subject later on, and ascribed more importance to woman's intuition. Cf. also Disraeli's reference to the "High Priestesses of predestination." J. M. K.
- [23] This aphorism may have been suggested by Nietzsche's observing the behaviour of his great contemporary, Bismarck, towards the dynasty. J. M. K.
- [24] This is once more an allusion to modern Germany. -J M. K.
- [25] This is why Nietzsche pointed out later on that he had an interest in the preservation of Christianity, and that he was sure his teaching would not undermine this faith just as little as anarchists have undermined kings; but have left them seated all the more firmly on their thrones. J. M. K.
- [26] Women never understand this. -J. M. K.

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Astonishing functions of human brain and miracles of mind

Astonishing functions of human brain and miracles of mind

by Shriram Sharma Acharya, translated by Rajani Joshi

CONTENTS

- Human Being – Arcane Masterpiece Of Supreme Creation
 - Orgulous Potentials Hidden In The Human Body
 - Scientifically Viable Methods For Refinement of Talents
 - Likelihood Of Talents In A Single Child
 - Enrich The Future By Past Knowledge
 - Would Like To Be A Mobile Computer?
 - The Magic Of Human Brain
 - Manifestation Of Divine Powers In Human Intellect
 - Brilliance Beyond The Barriers Of Maturity Age
 - Growth Of Intellect With Aging
 - Everybody Owns An Excellent Brain
 - Majestic Wonders Of Memory
 - Memory Loss – Causes & Remedies
 - Mode Of Living & Maintenance Of Memory
 - Oblivious Minds Of Intellectuals!
 - Rousing Mental Potentials By Simple Training
 - Mental Wizards Or Magical Brains!
 - Measures Of Intelligence
 - Talents With Insanity!
 - Are Super Brains Cranky Too?
 - Supernormal Talents – Proofs of Extrasensory Assimilation
 - Refinement Of Talents In The Laboratory Of Life
 - Why Mental Complications and Insanity?
 - Why Is Man Scared Of Death?
 - Mind Is The Foundation & Body The Edifice
-

- Control Of Physiological Activities
- Restraining The Agile Mind
- Tendencies Of Mind Can Be Reoriented
- Progressive Refinement Of Ideology
- Reflections Of Mind In The Mirror Of World
- Amelioration Of Sentiments Too
- Spiritual Healing – New Frontiers Of Therapeutic Developments
- Sublimation Of Spiritual Element – Ultimate Goal Of Life
- Revolution Of Attitude – Silver Line Of Bright Future
- Self-Restrain: A Sign Of Prescient Wisdom
- Importance Of Stable Temperament
- Depth Of Emotional Center
- Human Mind – Source Of Eternal Bliss
- Uncountable Boons Of The Almighty
- Perfect Use Of Rare Opportunity

Human Being – Arcane Masterpiece Of Supreme Creation

The advent of Particle Physics and investigations into subtler constituents of material existence has brought modern science closer to the domains of spiritual sciences. Many scientists now recognize human body as a magnificent reservoir of vital power. The immense potentials existing intrinsically in this living system are beyond imagination. Manifestation of these as supernatural talents and powers in some people amaze us from time to time and make us think - how wonderful would be the culmination of life if one realizes the internal powers and endeavors to creatively gravitate them in the righteous direction...? The subtle layers of consciousness associated with the expression of soul in the individual self contain gigantic treasure of the 'gems and pearls' bestowed by the Omnipotent. If these subtle talents and powers could be roused and cautiously used for noble purposes, the individual self would rise up to the sublime levels of divinity — transmuting an ordinary man into a superman, an angel..., an equivalent of God's incarnation.... Cardinal Gissap Mejophanty, who was the manager in-charge of the Vatican library around 1833, possessed exceptional versatility in 50 languages spoken in different parts of the world. The source of his supernormal linguistic expertise still remains an unsolved puzzle for the scientific community.

How one could speak, write and decipher the literal complexities of a language so well without undergoing any formal training and without even visiting the place where it is spoken or meeting the people for whom it is the medium of communication? Swami Vivekanand's supernatural grasping power and memory is well known to the modern world. He, just by touching a book, used to get the essence of what it contains.... He used to read pages instead of sentences and was able to recite the complete text thus read by him without mistaking a single word. Saint Gyaneshwar had excellently translated the holy G^ot³ in Marathi when he was hardly sixteen years old. Neuroscientists often argue that in the normal case, the active memory of human brain stores just about 1% of the knowledge and information gathered by it over a long period of time. That means, on an average we forget about 99% of what we read, heard or perceived in the past.... Then how is it possible that some people are able to recall all details of the past events - including the distant past - with ease. Such wonders of memory are found in some people since birth; the hidden layers of memory get activated all of a sudden in some others; the masters of yoga and spirituality can awaken such powers at will. Medical science declares such cases as exceptional while the parapsychologists consider them as examples of the supernatural potentials of human brain. A noted scientist, Sir William Brett has cited many examples of the extrasensory powers of some people who are able to spot the hidden treasures, the presence of specific natural resources - oil, water, minerals etc deep beneath the earth's surface. Location of the grand Jamshedpur steel factory in India was guided to the founder of the Tata group of industries by Swami Vivekanand when he used his supernormal vision in response to the former's earnest request. People possessing the above kinds of extra sensory perceptions (ESP) are called saguniy³s in India. These saguniy³s usually

hold a green branch of Neem or Chestnut tree, copper wire or some metal rod – ‘divine rod’, as named in the western society and move around the site of search. At a specific place, the branch or rod starts pointing downwards or moving automatically — indicating the presence of the desired resource. No such event occurs if someone else, without an ESP power, holds the same rod or wire at the same spot.... How this happens is a matter of research at present. This clairvoyance, ESP or spiritual talent expresses the arcane power hidden in human consciousness. “How and why is it awoken in some people?”; this cannot be explained in terms of the scientific knowledge available till date.

6 Such potentials are no longer regarded as false claims or outcome of blind faith. Their existence has received recognition by the scientific community too. Many of the modern oil exploration projects begin with the help of the dousing techniques. These are based on the indications given by the ESP of the saguniy³s. Help of such powers is also sought in complicated forensic investigations and identification of faults in the underground or underwater sewerage pipelines or cables etc. It is now believed that immense mental concentration and focussed use of the awakened subliminal powers of human mind work behind such ESPs.

Scientific investigations have revealed that a latent sphere of specific energy surrounds every living being and material entity to its own characteristic emissions. Different things have different types of energy-spheres around them. The sun, moon and other planets, and stars, rocks, water, metals, nonmetals, trees, plants, humans, animals, etc; every creature, every element, consists of different ensembles of atomic and subatomic particles whose continuous vibrations generate specific kinds of energy-waves. Thus, everything existing in the cosmos is emitting its own energy-waves in all directions. The dense sphere of this radiation creates the invisible domain (aura) or energy around it.

The dousing principle – of supernatural sensing of specific vibrations from the earth’s surface – establishes a linkage between the individual and the cosmic energy spheres. Some scientists argue that — when the energy emissions of water or a specific resource collide with the aura of an individual like the saguniy³, the latter’s brain receives a special vibration or bioelectrical signal. This accounts for a sudden stretching of his muscles and hence for the ‘automatic’ pulling-down of the indicator rod or wire that is hold by him. The specificity of one’s aura therefore appears to be a possible cause of the extra sensory perception of the presence of something ‘Hidden in the Hades’. His vital energy and the state of the subtler levels of his pr³ñā influence the aura around a person. This aura has been referred as the etheric double, ideosphere or the pr³ñamaya koīa in the spiritual literature. The ionosphere surrounds the earth; the human body is also surrounded by an aura of its conscious energy. The bio-electrical flows of pr³ñā in the brain and the mesh of interconnected nerves regulate the intensity and expansion of the domain of influence of the aura. Stimulating the subtler layers of consciousness, with the help of spiritual endeavors (s³dhan³s) could immensely intensify the eminence and strength of this aura. The spiritually evolved aura endows one with astonishing talents and potentials through its linkage with the cosmic {pr³ñā}. Such a person can influence the people and environment around him and offer benefits of his spiritual energy. Psychic healing and ĩaktip³ta1 are well known spiritual experiments performed through this medium.

A natural question arises here as – how is the presence of aura realized? Can it be seen by naked eyes or perceived through other senses? We must note in this context that there are two types of auras - physical aura, constituted by bioplasma and bioflux and the psychic aura, which is a circular domain of subtle etheric waves of pr³ñā. Scientific investigations into different aspects of aura around the human body have gone a long way; still, a lot remains to be revealed. The subtle reflections of cosmic consciousness in the humans are unlimited. If not impossible, it is certainly difficult to decipher them in toto.

Sometime in 1972, Dr. Boris Tarusov of the Biophysics Department of Moscow University had recorded very low intensity light radiation emitted from human cells and from the leaves of some plants. Around the same time, Dr. Victor Inuschin of Alma Ante State University of Quazakhstan had shown that human eyes and also some insects emit ultraviolet radiation which can be recorded on special photo-sensitive films with the help of specific filters. Dr. Heraldber and Leonard Revitz

7

had analyzed and expanded the principles of such emissions under the topic named 'Life-field' or 'Lfield'.

High voltage photographic techniques such as — electrophysiology, corona discharge photography, and Kerliyan photography were gradually developed to measure the type and intensity of an aura. Significant differences were seen in the colors of the auras formed in the state of shock, fear, mental disorder or psychological aberrations or those formed around diseased or weak parts of the body. These observations also helped formulating methods for the diagnosis or prediction of certain maladies caused by biochemical or psychosomatic disorders. Dr. Thelma Moss of UCLA has observed and successfully recorded the eminent coronas around the fingertips of some yogis and spiritually elevated persons. Lin Throuder and Sheila Ostreder have published a book (first print in 1970) entitled 'Psychic Discoveries Behind Iron Curtain'. They mention about a Russian parapsychologist and psychic healer Col. Alexy Chrivorotov. Whenever this healer would circularly rub his hand upon a patient's stomach, glowing rays of high intensity like the 'laser beams' would begin emitting from that hand... These rays used to get concentrated and absorbed at specific point on the patient's organ where the ailment existed... The authors have also printed a photograph of these phenomena in the above book.

Dr. E. Douglas, Dean of Newark College of Engineering had measured the radiation emitted from the hands of a psychic healer named Ethel D. Loach. Dr. Douglas had used an instrument designed in Czechoslovakia for such studies. During some experiments, as the dean has mentioned in his reports, the psychic healer had demonstrated variations in the colors of light rays emitted from his hands. According to Drs. William Taylor and David Boyars of Stanford University, the recordable emissions in the biological aura lie in the ultraviolet range. They have also photographed some auras using filters suitable for this range. Many researchers have been able to inter-relate the biological plasma body and high voltage Kerliyan fields.... Phantasmic leap and Limbtz effects are also analyzed under these theories.

In spite of the above progress of scientific investigations, the parapsychologists consider the existing theories and experimental techniques as incomplete. They argue that there is no comprehensive model or method, which incorporates clear recording and measurement of the etheric body, aura, ergon energy, the subtle electrical currents of the chakras and the expressions of astral body.... The vibrations of bio-plasma particles that are bio-electrical or electromagnetic in nature, are often photographed by the high voltage machines. But, these represent only a fraction of the original aura. The etheric aura should not be misinterpreted as being manifested in the bioplasmic aura. Noted psychologist Prof. Wilhelm Reich had introduced the concept of ergon energy, during Freud's time. He defined it as the energy of the subtle vibrations of consciousness. Ergons were recognized as the basic units of measurement of the characteristics of these energy-waves. The ergon accumulator developed by Prof. Reich was shown to Prof. Albert Einstein in the Princeton University on the 13th January 1941. Einstein, the most eminent authority of contemporary Physics, had also verified the functioning principle of this instrument. Although Reich's hypothesis faced controversies in the later years, the acceptance of his idea of existence of 'ergon energy' continues to dominate the studies of human-aura. Many scientists and parapsychologists are now researching the possibilities of its use in prevention and cure of physiological and psychological ailments. This world is a gigantic ensemble of multiple dimensions and varieties of expressions of life and matter. The human body is a small but special component of this colossal system. It is endowed with all the powers of the Supreme consciousness in subtle forms. Although this subtle presence cannot

8

be observed or confirmed in scientific laboratories, the existence of the etheric (or astral) aura generated by sublime activation of these powers cannot be denied on such grounds. Its conceptualization is as true as that of the inner self.

Orgulous Potentials Hidden In The Human Body

The general appearance and routine activities of the life of extraordinary personalities is similar to that of many others. Nevertheless, their supernormal talents and brilliance are simply amazing. Many examples of this sort can be found in human history and in the contemporary world, which manifest the esoteric domains of internal powers. What genetical features, brain functions or latent activities of the conscious and unconscious mind work behind the supernormal potentials - is still an open field of research.

'Mobile Computer' Shakuntala Devi's arithmetical wonders had been quite popular until recently. Few years ago, a six years old boy Ashok, of Vijaygram, Karnataka had also stunned the media by demonstrating supernormal talents of Mathematics. He could solve complicated calculations in just few seconds...! Mastering over a single foreign language would take not less than a decade for average people... However, there do exist exceptional brains like that of Prof. French Alexander Richter, which could converse and have literary expertise in as many as seventy-seven languages. Switzer Kalphax was perhaps the only member of the American Congress who was unanimously selected to hold two important positions in the highest ranks of the state because of his extraordinary talents, insight, and sense of responsibilities and sincerity. He was requested by all the concerned to hold these positions and even the 'one man one post' rule was modified for this purpose. Kalphax was the vice-president of USA in 1865 when he was also selected as the speaker of the house-ofrepresentatives. His presence of mind and memory were truly exceptional. It is quite rare to see a single person working on the faculty positions of different departments in different universities. Dr. Paul A. Chandvorn of America was indeed a distinguished scholar who was holding the Professorship of Botany Department in the Williams College, that of Engineering Sciences in the Wadoin College and Medicine in the Myne Medical College. It is not that the scarcity of learned teachers made these colleges appoint him, rather, it was his versatility in the above subjects and his adept teaching because of which every good college and university department of higher education wanted to have him on its faculty. Dr. Paul had excellently transacted multiple responsibilities of teaching the highest level classes in different disciplines of life sciences and engineering for several years. Swami Vivekanand's transcendental talents and memory are recorded in the glorious chapters of human dignity. He had to once appear as a witness to support fair justice in a court of law. He was an eyewitness to a conversation – in a south Indian language, between the complainant and the accused, which had taken place several months ago. Swamiji did not know the language at all. However, because of his unique memory, he reproduced word-by-word, the half-an-hour conversation between the disputants in the same language as if a tape recorder was being played in his mouth. This history-making statement of the witness helped save an innocent and honest man from the bars. The above examples only give a glimpse of the enormous potentials existing in a human being. Every individual contains unlimited repository of conscious energy. An ordinary man spends his average life of about sixty years in eating over 35 tonnes of various eatables and sleeping for almost half his life span. If he realizes this fact at an early age and endeavors to arouse and properly channelize his 9 potentials in every second of his life, he can also attain supernormal talents and become immortal in history. Some people think that extraordinary talents are God-gifted destined qualities brought since the time of birth or such potentials are the results of boons and blessings of divine souls. This is not quite true. Man is indeed an architect of his own destiny. It is in his own hands to inculcate righteous tendencies and sincerely pursue the development and refinement of his own talents. Human history is not short of examples where most ordinary, even boobies and weak personalities have risen up against the adversities of circumstances and earned recognized success on their own. Madam Curie was born in a poor family in France. In her young age, she used to work as a governess to look after the children of a rich family. Nevertheless, because of her determination and motivation, she could qualify to get admission in the science department of the Paris University. Her economic hardships posed many obstructions but she did not let despair or distraction enter her way.... Ultimately, her devotion and insight in the subject led to the discovery of radium, which drastically changed the shape of future scientific developments.... Priest Norman Vincent Peel was an eminent psychologist of America who is known across the globe for his scholarly works. He had begun his career by selling aluminum utensils. He was confident that he has the talents of a good salesman but that his efforts are not being recognized because of the adverse circumstances. Initially he even had to face people's scornful and confronting attitudes. He remained

unperturbed and reached his goals with optimistic temperament. He became an honorable priest in the later part of his life. Despite facing the ups and downs of life, Norman Peel had meticulously written several thought provoking books that inspire and guide the readers to successfully struggle with the impediments in life. In the book entitled 'Enthusiasm Makes the Difference' he proposes an eleven word formula – "every problem contains within itself the seeds of its own solution". The seeds of success lie in our inner mind. It's our responsibility to make them sprout and grow with the help of our determined endeavors. Peel has also suggested following practical tips, which are very effective in improvement of talents for a progressive life: (i) One should throw away the negative thoughts of pessimism and lack of confidence in the success of the work in hand.... (ii) One should cultivate the habit of self-analysis to know his qualities and potentials and also practise autosuggestion to strengthen the positive aspects..... (iii) Thinking should not remain confined to selfish affairs; one should also plan for other's welfare and attempt materialization of the same.... (iv) God-gifted willpower and inner strength should be used creatively and cautiously to avoid the wastage and misuse of the mental and physical potentials and talents. (v) Daily routine should be well planned - keeping in mind that every step in life should lead towards higher goals.... (vi) The energy and activities of mind should be oriented in a positive direction by creative thinking and adept learning. (vii) One should practise linking the self with divinity every day and night - by way of prayers, meditation etc, as an integral part of life. This cultivates inner strength and virtues to enable one to overcome all difficulties and adversities and even do what would appear impossible to many others in general. 10 Sincere adoption of above mentioned habits and suggestions protects waning and decay of inherited talents and transmutes one's mental potentials to reach high realms of progressive life.

Scientifically Viable Methods For Refinement of Talents

Evolution of intellect is a psychological process. Different kinds of methods could be adopted for the purpose of improvement of talents depending upon one's inclinations. Some people acquire knowledge by memorizing, some by problem solving...., etc. Learning by analogy or examples seems to be a universally acceptable model of mental training in the initial phase of intellectual development. Children in the early days of Kindergarten are given exposure to learning with the help of creative games like - arranging colored blocks in given shape or design; changing the shape of a design by rearranging its components;etc; gradually higher levels of pattern recognition, decision making and creativity are used to increase the level of mental faculties at later ages.... Several religious rituals performed - especially in the Indian system, at different stages of life are also aimed at appropriate training during the transition phases of mental development. General maintenance of physical health becomes possible by keeping balance between nourishment and physical exercises or labor. But, extra efforts - like gymnastic, or heavy exercising with the help of special instruments in the wrestling clubs, etc, are also required if one wants to build a stout body. Knives and swords need to be regularly sharpened by scrubbing them against rough stones...; though, it is a property of the material - how sharp it could be made, the importance of the stone (rough surface) and friction cannot be denied. Although our nerves and muscles lie inside the body and their proper functioning depends upon their activities under the control the brain, the applicability of oilmassaging, stretching, etc – as advised by the doctors, is also useful in strengthening the muscles. Authenticity, integrity and eminence of character set strong foundation for the evolution of mental powers. Enthusiastic aspirations, keen interest and sincere perseverance are required for the refinement of talents. Qualities like industriousness, punctuality and motivation which link one's labor with creativity also ought to be cultivated for progress along this path. Free and healthy development of talents becomes possible only by breaking the narrow boundaries of self-centered interests and objectives. The principle of 'simple living and high thinking' helps best use of one's time, materialistic and physical resources and talents in altruist activities of social welfare and propagation of goodwill and morality. Creative and altruist use of one's capabilities is essential for rousing them up to higher and higher levels. The same rule applies to the refinement of talents. Although, people may gain wealth and success by talents coupled with atrocious audacity or terror, their negative activities ultimately lead to deterioration and devastation in terms of true progress.... It is only the sensible and creative use that can ensure growth and improvement of talents. In the present context, we refer to the word

'talent' as a perfect combination of intellectual and other creative potentials with serene sentiments and ideals of humanity. This concept of talent is related to a composite development of belief and intellectual capabilities in people, which is always helpful in promoting righteous growth of human society. It is the group of such talented personalities that inspires many others towards noble goals and sets progressive trends in the history of any society. We are focussing here on the origin and evolution of this kind of talent in any human being. One might ask here – "Is it possible to induce such a high level of metamorphosis of personality in the masses with the help of practically implementable methods?" It is easy to teach alphabets, 11 numerals and locomotion to a child with the help of simple mechanical gadgets. Similar well-defined and tested methods of training the human mind and body are available at later stages of student life.... Is it also feasible to devise some training course or practices, which offer opportunities to everybody to brighten up the personality and inculcate the above kinds of talents? Affirmative answers to these questions are available in the ancient Indian science of spirituality that focuses a great deal on all aspects of personality development. Development or progress of any kind demands dedicated and disciplined endeavor. A wrestler or a gymnast has to follow a routine of prescribed exercises along with dietary restrictions in order to strengthen his muscles and control over body movements... Similarly, the adoption of specific disciplines and training of the mind is essential for the aspirants of developing mental strengths and talents. The Brahm Varchas Shodh Sansthan³ in Haridwar (India) has experimented with some of the spiritual s³dhan³s in above regard. It has come out with a set of about ten simple exercises which are scientifically justified and which can be practised in day-to-day life by every normal person. We present below a brief description of each of these s³dhan³s: 1. Swasanketa (Auto-suggestion): In order to practice this, the s³dhaka⁴ should sit at a neat place in a quiet environment. The body should be relaxed and still and the eyes kept closed. All mundane thoughts should be withdrawn and the mind settled in a state of peace. Now, one should conceptualize and feel as though a glowing beam of the vital energy of pr³ñā is emanating from a focal point in the center of the brain. It is radiating with force in all external and internal organs of the body – it's flowing through the nerves, veins, arteries etc and energizing every component of the body and mind. Energy, alacrity, and activity are gradually replacing all sluggishness. The efficiency of each sense organ is being enhanced manifold. Outer skin is glowing; face appearing bright and radiant. One should also attempt feel the exaltation in his intelligence which is elevating the talents and excellence in mental perceptions and transactions..... One should inspire his own self with such feelings again and again.... The above kind of 'auto-suggestion' is the key to the metamorphosis of psyche. The Īruti proclaims – Yo Yacchadraj; Sa Eva Saj; meaning: man shapes his personality by his own thoughts and concepts about himself. The cosmic energy pervading the universe is an unlimited repository of virtuous attributes. Adoption of optimistic temperament and conceptualization of the positive feelings - like assimilation of the qualities of great personalities in one's own self...., generate specific currents of pr³ñā and begin to draw the corresponding attributes from the cosmic reservoir.....; this results in inculcation of those virtues and potentials in the s³dhaka. Psychologists too advocate the efficacy of positive thinking in transmuting a change of personality. It has been hypothesized in psychological theories that - as the earth is surrounded by the ionosphere, the human brain is also enveloped by an ideosphere created by his own thought-waves. The quality of one's character, the standard of one's thoughts and sentiments characterize the attributes and power of his ideosphere. The ideosphere can be made to change instantaneously by drastic change in outlook; it regains its original character on resumption of older habits. Assimilation of creative ideals in thoughts - generated by positive thinking – is reflected in brightening of the ideosphere that gives rise to the appearance of specific glow on face. Such an individual acquires a personal biomagnetism (impressive charm) and attains extraordinary power to influence others; his speech or advice can inspire a change in the attitude and thoughts of many others in his 12 contact. In a way, by practising autosuggestion one may energize his invisible aura into a bio-magnetic field.... The popular published works of modern Psychologists such as — 'Think and Grow Rich' or 'Adopt Positive Principles Today' etc., illustrate the importance of autosuggestion. It is also said that – "All great men in history have reached the heights of greatness through auto-suggestion only". In his early years of life, Mahatma Gandhi was inspired by a play on the great king Harish Chandra. It had induced him to use autosuggestion for experiments with moral principles and truth thereafter and eventually transmuted his personality into a mah³tm³.

13 During the experiments at the Brahmvarchas research institute, mental stimulation is created with the help of audio-visual signals and after a short interval, the subject is asked to ponder over the reactions. This process generates a strong bio-electrical current, which is monitored directly on G.S.R. Bio Feedback device. In these experiments, the subject is able to see the reactions of his thought process on skin resistance. Similarly, the changes in the frequency of respiration, pulse rate, blood pressure etc are also recorded. It has been found that all these parameters show significant change with variation in the type of autosuggestion schemes. It may be noted that the techniques of Vipasyan³ and the Jain system of meditation are also based on autosuggestion. There is no reason why adoption of correct method of autosuggestion should not bring about the desired changes in the talents of a person.

2. Darpaña S³dhan³ (Special Practice with a Mirror): Basically this is a s³dhan³ of self-appraisal and improvement. For this, one should sit in front of a large sized mirror either cross-legged on the floor or on a chair keeping the spinal cord erect. Then look at each part of the body with appreciation and confidence in its strength and competence. The s³dhaka should thank the kindness of the Omnipotent God for blessing him with such a wonderful instrument. He should begin with self-appraisal and feel that his inner and external body is getting cleansed of all weaknesses and vices; his inner self is becoming purer... The s³dhaka should concentrate on his presence as seen in the mirror and conceptualize that the intensity of pr³ñā (vital energy) is increasing in the internal organs of the body. Its bright radiance (tejas) is permeating outwards from each and every part of the body, enhancing the glow of the outer skin. He should also imagine that his body, which was pale, infirm and weak has now been transformed and each of its pores is being charged with pr³ñā; the energetic functions and development activities in the body are accelerated along with the bio-electrical currents in the brain. When the reflection of the self in the mirror is conceptualized as an entity charged with immense pr³ñā, the merger of the identity of the self with the former illuminates the mental domains too; this leads to the refinement and rise in the s³dhaka's talents. The above exercise is a kind of meditation (dhy³na) which is also known as the Laya Yoga. It is the intense feeling of unification (bh³va kalpa) with the bright image of the self that transmutes the psyche of the s³dhaka up to sublime levels in this case.

3. Meditation on Colors: Each color-component of light is impregnated with specific chemical constituents, elements of metals and electrical currents derived from the sunrays. Radiation of each color in the spectrum leaves a distinct imprint on the body and the brain. These constituents are in a state of equilibrium in a healthy person. Perturbation in the optimal ratio of color-absorption in the body or distortion or inequilibrium in their normal levels makes the body-system prone to various disorders, diseases and weaknesses. Chromopathy works on the principle of maintaining the equilibrium level of colors absorbed in the body. In chromo-therapeutic treatment of an ailment in the gross body, the affected organ or part of the body is exposed to the radiation of specific colored light for specified period of time through the medium of transparent colored glasses or electric bulbs. For the purpose of improving the efficacy of 14 mental faculties by this technique, the subject is asked to meditate upon specific colors with closed eyes. The seven colors (Violet, Indigo, Blue, Green, Yellow, Orange and Red) of the light spectrum are isolated and made appear bright with the help of C-stroboscope. All colors but the ones desired are filtered out with the help of special lenses and the subject is trained to concentrate on the specified color(s) for a particular duration. The above process of meditation on selected colors stimulates the ultra fine nerves along with the cakras (extra sensory energy centers). Regular practice of this meditation triggers the desired reactions for change in the psyche. It is conceptualized here that the particular color is omnipresent in the cosmos and is also permeating one's own body with its characteristic energy and effects. This s³dhan³ is usually performed for a period of five to ten minutes in one sitting. The choice of colors is recommended by the specialists and depends on the psychology and inner makeup of mind of the subject.

4. Pr³ñ³karīāñā Pr³ñ³y³ma⁵ The entire cosmos is impregnated with pr³ñā. In normal case, every living entity receives only that much of this vital energy which is required for keeping its body alive. However, one does require larger amounts of pr³ñā to endeavor for higher goals. Conjunction of the pr³ñā of an individual with the omnipresent cosmic reservoir of conscious energy (Mah³ Pr³ñā) not only recharges the former, but also strengthens it and increases the efficacy and use of its vital force. The vital force of pr³ñā is manifested as the ensemble of 'negative ions' in the electrical fields of bio-energy. A deficiency of these ions in the environment makes one sick, pale and devoid of vigor. Consequently efficiency of the people living in such surroundings is also reduced. The abundance of

negative ions on the other hand, increases one's resistance and vitality and adds radiance to face by enhancing the level of pr³ñā. The latter effect also accounts for a rise in one's overall efficiency. Pr³ñ³kar³lāñā Pr³ñ³y³ma is a simple exercise aimed at enhancing the level of pr³ñā to attain the above mentioned positive effects. For this, the s³dhaka should sit in a relaxed position keeping the back straight with both hands on the lap and breathe deeply through both nostrils at a slow and steady pace. He should concentrate on the breathing and conceptualize that he is sitting amidst an 'ocean' of dense shining white clouds engulfed by the force of pr³ñā. He should also attempt feeling that he is in a nonchalant, serene and happy mood and that the flow of pr³ñā from the surrounding 'ocean' is entering with each breath during inhalation (p³raka). While retaining the breath for few moments (anta³ kumbhaka), he should feel that the inhaled pr³ñā is assimilated in every part inside the body. Exhalation (recaka) should be accompanied by the imagination that all the toxic effects, undesirable traits and instincts of evil and weaknesses, which were present within, have been neutralized by the pr³ñā and are expelled out for ever. Breathing should be suspended for few moments (b³hya kumbhaka) with the conception that the malice thrown out has gone away and will not be able to re-enter the body..... Likewise for any other pr³ñ³y³ma, five to ten minutes duration is considered sufficient in the initial stages of this exercise. This period is increased gradually up to thirty minutes or more. In the experiments at Brahma Varchas, the increase in the capacity of retention of pr³ñā, amount of expulsion of toxins from the blood and enhancement of oxygen content of blood are monitored. Changes in the subject's (s³dhaka's) psychological parameters are also analyzed. There are clear 15 indications of improvement in the body's resistance to disease, vitality and increase in efficiency of mental faculties.

5. S³rya Vedhana Pr³ñ³y³ma : This exercise aims at extracting pr³ñā cetan³ from the Sun. It is performed during the period of dawn in the purplish glow of the rising sun as described below: Be seated with minimum clothing in the meditation posture – erect spine, hands on the lap, eyes closed, relaxed state of body and mind. Face eastwards. Conceptualize that the astral being (soul) residing in the body has come out and is destined towards the sun. Just as thread in the needle goes across the cloth or a metallic rod is made to cross a flame, the astral body is imagined to be penetrating and traversing through the core of the rising sun. Have a feeling that in this process the soul is being charged with the cosmic energy of the sun. Begin pr³ñ³y³ma while closing the left nostril. Imagine that the air inhaled through the right nostril is stimulating and exciting the S³rya Cakra⁶. Conceptualize and feel as though large amounts of Ojas, Tejas and Varchas — eminence and strength of the physical, mental and spiritual powers are being assimilated in the self through the inhaled flow of pr³ñā. While exhaling air after the anta³ kumbhaka, imagine that all evil traits and instincts are making an exit and are removed forever by way of b³hya kumbhaka. There should be a consistent feeling that during the above process, the charge of pr³ñā has increased substantially and is manifested in increased excellence in all aspects of one's being. The physical exercise of breathing is not so important here as the mental and emotional engrossment in the said conceptualizations. The more intense the level of imaginations, the greater would be the benefits of this s³dhan³. 16

6. Magnetic Contact: Magneto-therapy has its own significant place in medical sciences. There is a remarkable similarity among working principles underlying the techniques like Acupuncture, Acupressure, Mudra³-Bandha⁷, and Magneto-therapy. Our planet operates as a huge magnet called Geo-magnet. From the eternal repository of pr³ñā in the cosmos, the earth continues to draw a fixed quantity through the North Pole, and disposes off the undesirable evil components (effluents) through the South Pole. Magneto-therapy makes use of this principle - the power (pr³ñā) attracted from the earth's magnetic field is introduced in the desired part of the body through the north pole of a magnet and the effects of unwanted or harmful elements is discarded through the south pole. In this therapy, a mildly magnetized piece of iron is taken and moved slowly over the head, spinal cord and heart in a clockwise rotating motion. The movement should be slow. The magnet is passed downwards over throat, navel and reproductive organs and then washed to remove undesirable accumulations. This process is repeated again and again. An electromagnet or magnetized water may also be used in a similar manner. The methodology of treatment depends upon the type of ailment and condition of the patient and the therapy is carried out as per the diagnosis and guidance of the specialist. Controlled experiments with such magnetic contacts gradually remove all internal ailments and accelerate upward flow of bio-electricity, which supports strengthening of the body and mind.

7. Linkage with Spiritual Eminence: Īaktip³ta is a process of subtle transmission of pr³ñā from an individual highly charged with spiritual energy into his

disciples. This is a like a t³ntrika procedure which has instant effects of great intensity and transmutes the latter's personality almost downside up. It is difficult and risky to perform such experiments. A simpler alternative leading to the above effects – accessible to everybody without any danger – is that of staying in contact with spiritually refined personalities and benefit from their influence. It may not always be possible to physically reside within charged premises or in regular contact with such eminent persons. Nevertheless one may make an endeavor to find conceptual proximity to some super beings like Hanuman or Bhagirath and attempt continuous interaction with them. The interactions should be dedicated, akin to that between the soap and the cloth, the former providing its cleanliness (virtues) to the latter, removing its dirt (vices) in the process. For practising such a devotion one may take help of a painting, photograph or idol etc. or contemplate on the ideals followed by these superhuman characters. This is also an effective method for increasing the spiritual energy. The s³dhaka is benefited like an infant sucking milk from the mother's breast or a disciple deriving inner strength in contact with his mentor.

8. N³da Yoga: Different compositions of the notes of various musical instruments produce characteristic waves, which leave distinct imprints on human psyche. Audition of enchanting music in a peaceful environment helps awakening creative talents and virtues. Ābda-Īakti (the eternal power of cosmic sound) is 17 considered to be a source of energy for the cetana. The vibrations generated by n³da (musical sound) stimulate the nuclei of energy within the listener's body and generate soothing flow of cetana in the mind. There are many s³dhan³s of n³da yoga specially devised for spiritual elevation, which are based on realization of the eternal n³da in the inner self. The simplest practice would require selecting suitable types of musical instrument and composition of a tune (r³ga) under the guidance of an expert of this s³dhan³. This practice could begin by playing or listening to it regularly in a relaxed, divinely calm state of mind. Initial phase of this practice is usually short – of five to ten minutes only, which is increased gradually. The suitability of the r³ga depends upon the mentality of the s³dhaka and the place and time when it is to be played. The research laboratories of Brahm Varchas and music studio of its sister organization, Shantikunj – also in Hardwar, India are engaged in preparation of audio cassettes suitable for different categories of s³dhakas.

9. Pr³yañcīta (Confession and Expiation) Evil deeds like adultery, unchastity, deception, unethical earning, etc. deplete the power of pr³ñā in a person and thereby suppress his talents too. Therefore, penance for compensation of such deeds and misconduct – performed willfully or inadvertently – becomes necessary. 'Confession' is regarded as a significant tenet of Christianity. In order to redeem the damage done by the vices, ascetic restraints are followed together with practice of virtuous altruist activities. The special kinds of vratas (fasting with penance) like c³ndr³yañā are recommended for this purpose. One feels fairly relieved after disclosing the details of the misdeeds and immoral thoughts before a noble mentor (Guru) and seeking his adept guidance for appropriate method of expiation. It opens up new avenues of elevation of one's character. Pr³yañcīta is a process of psychological refinement, which is essential for all aspirants of excellence of any kind.

10. Partaking Germinated Seeds and Herbal Medicines: Various grains of food, pulses, herbal plants and roots have special medicinal values. A fresh germinated seed has specific and extraordinary characteristics. Partaking certain preparations - called kalka, of these along with herbal medicine is found to have excellent effects on improvement of one's physical and mental health. For preparation of kalka, the type of grains and pulses are chosen according to the subject's requirement and are sown in seven pots successively after one day's interval per pot. On the seventh day the kalka is prepared by adding twelve grams of water in three grams of juice extracted by meshing the sprouted seeds. After decantation, this kalka is taken empty stomach with little honey early in the morning. This preparation helps augment the tejas and it works like a natural brain- tonic. Similar kalkas may be prepared from green herbs and roots or from their dried and ground products. The doses are, however, prescribed by the specialists. In some cases, the subjects are asked to inhale the vapors of dried herbs that are sacrificed in fire during an Agnihotra or Havana. Here we have discussed in a nutshell ten methods of improving the physical and mental potentials and talents in a person. Detailed information and adept guidance on these is provided to the participants of the s³dhan³ ĩiviras (training programmes) organized by Shantikunj, Hardwar. 18

Likelihood Of Talents In A Single Child

Spiritual disciplines set a good check on the size of the family. As these disciplines also aim at rousing the talents and hidden potentials of every member of the family, they appear to be advocating, among other things, a strong possibility of healthy development of children in small families. Until several decades ago, some psychologists had been raising doubts about proper development of the first or the only child in want of any company. Long-term studies and analysis of experiments have however annulled such doubts. Dr. Frank Salove of Austria had brought a major surprise when he had sent a report of his studies on above topic to the American Association for Advancement of Science for publication. He had tried to prove that the first child is usually less talented than the later ones. His inference was proved to be faulty in the next 4 - 5 years. The duo of psychologists Sycile Earnest and Julius Sanghust had presented the details of their studies in a book entitled 'Birth Order'. They showed that, the evolution of talents need not depend on the order of birth. However, one exceptional finding of their research was that - the level of intelligence of a single child is usually found to be above average and that such children are more talented than an average child in the same age group. Similar conclusions were drawn by renowned sociologist, Dr. Judith Black of the California University. Dr. Black is considered to be a strong critique of Salove's hypothesis. She is not the only one, a large number of social scientists of high repute are of similar opinion; their research work has also contradicted Salove's theory. Dr. Black's research dissertation mentions that – "The principle of birth-order may appear new and attractive at a superficial level, but, it is baseless in terms of facts and logical analysis. It does not contain the truth as claimed by Prof. Salove...". Dr. Black's comments are based on her large number of experiments and detailed analysis of over one lakh talented persons. Her surveys showed that 70% of these subjects were the only child of their respective parents and only 30% had one or more brother(s) or sister(s). Another significant observation was that the percentage of women in the one lakh randomly selected talented people was more than seventy. Thus Black's studies brought out two important conclusions - (i) girls are, in no way, less talented and capable than the boys and (ii) a single child (only child), be that a boy or a girl, is most likely to have higher IQ (intelligence quotient) than the average. The above research had also shown that the economic standard of the family generally affects the development of children in several ways. If a family is large and poor, its members cannot remain free from the negative effects and pressures; development of their personalities is also constrained and is often hindered by such complications. Dr. Black infers this as an important factor behind the observations that majority of the talented persons happen to be the only child in their respective families. This is because, all the resources and attention of the parents are oriented towards the single child and he/she gets better chances to grow in a healthy and happy environment as compared to the children of larger families. The distinguished psychologists like Dr. Abraham Maslow express similar views. Dr. Maslow opines that if a family is broken, large or economically deprived, then its internal strives would impede the development of its members. Healthy growth of the talents and mental potentials of the children is quite unlikely in such families and one cannot think of attaining 'self-actualization'. The term 'selfactualization' used by Dr. Maslow refers to the highest level of refinement of talents. 19 The research of Prof. Forster, a sociologist at the Liverpool University has shown that the possibility of rousing talents is higher in small families; it reduces with the increase in the number of members in the family. The eldest child has to bear the responsibilities of the youngsters along with caring for his parents in their old age...; his problems become manifold if the parents are disabled or die at an early age; because of such burdens there would be no scope for his own development. For the child of such families, traversing the difficult path of life is itself a challenging task, which leaves no room for any progressive aspect – elevation of personality is almost impossible in such cases. On the contrary, someone who is the only child in a family gets ample opportunities for enhancing his/her potentials and cultivating creative talents. Though, just being a single child does not create anything special in one's brain, it does ensure substantial support for the inculcation and development of positive effects in this regard. Dr. Frostier had surveyed a large number of people who were born and brought up as single child. He found that 80% of these were extraordinarily talented in one respect or the other. His analysis showed that the over-attention, excessive affection and attachment of the parents spoiled the remaining 20%. Otherwise, they too should have been noticeably talented and bright. Some sociologists of the Colorado University has expressed the

view that the mental potentials and talents of a single child almost always advance above average. These researchers give an entirely new argument in support of their conclusions. According to them, “the first crop in a field is always the best in quality and quantity. The fertility of the soil gradually decreases and so does the quality and amount of crop produced by it year after year.... Similar may be the possibility in case of human birth process too.” The above argument also gains support if viewed in terms of the science of spirituality. The principles of spirituality clearly mention that sexual indulgence accounts for significant loss in the level of *prāṇa* (vital energy). The loss in physical potentials due to the excited activities of the genitals is negligible as compared to the loss in the vital power caused by concupiscence. Consequently, the gradual deterioration in the level of bio-energy transmitted to the offspring reduces their physical and mental potentials too. This is why the second and successive children usually have lesser possibilities of being more capable than the first child... Glancing through the pages of world history may adduce many examples showing that a single child is bright and extraordinarily talented. Ashtavakra, an intellectual wizard of ancient India was the only child of Muni Kahoda and Sujata. Glorious warrior Abhimanyu was the only child of Arjun and Subhadra; so fertile and receptive was his mind that he had learnt the intricacies of the rare strategic technique of *cakravyu* when he was in the mother’s womb! The great scholar and perfect diplomat of all ages – Chanakya, too was the only child of his parents. Shaking the thrones of mighty kings, elevating an ordinary citizen up to the highest level in politics, designing the destiny or history of a nation was an easy game for his exceptional intellect.... Revered Swamy Adi Shankaracharya was also the only child in his family. His eminent scholarly knowledge of the ancient scriptures and accomplishments in spiritual domains are well known to the modern world. On the political front, former American president Roosevelt and former Indian Prime Minister Indira Gandhi add to the sequence of talented single child. Pt. Jawaharlal Nehru too was the only child of his parents till his teenage.... Ruskin of England and Bhartendu Harishchandra and several other reputed names in the field of modern literature also had the privilege of being singlechild. Remarkably, the founder fathers of modern science, the sagacious researchers like Isaac Newton, Albert Einstein and Para Celsus etc. were the ‘only child’ in their respective families. 20 Similar examples are also found in the contemporary world which provide evidential support to the scientific and logical conclusion that people born and brought up as single child are mostly endowed with some talents or eminence of personality.

Enrich The Future By Past Knowledge

Students of Physics know that the total mass existing in the universe is the same today as it was at the time of creation. Mass of the matter neither increases or decreases on its own. It remains constant. It is only the form of a material entity which changes with environment; a solid may melt into a liquid form and vaporize into a gas or conversely.... Everything in nature is continuously subject to change its form in one way or the other. Old is destroyed and is reborn into a new form; this process of transformation, destruction and creation continues forever; it maintains the varieties of forms and enhances the dynamic beauty of Nature. The repository of our thoughts also undergoes a similar dynamic update at an extremely fast pace.... The fundamental issues pertaining to human life in normal case are only a few. Basic mechanisms of thinking, investigating and resolving are also limited... The qualities of thoughts and associated mental activities may be divided into two broad classes - the divine and the cruel, or, the creative and the destructive types. There is also a third category of dull, indifferent or inactive types which belongs to a perplexed, self-contended or lethargic state of mind. The people in this last category trouble their minds to think only when forced by circumstances but their thoughts hardly lead to any conclusion.... The spectrum of thoughts in human mind remains confined to these three broad categories and a variety of thoughts of one type or the other continue to occupy the conscious mind. The activities of thought process revolve around this periphery with fluctuations as per the mood and extent of mental concentration. New arguments, logic, examples, theories, causes and propositions arise according to mental status, aspirations and the needs of time. Our earth and other planets are almost spherical in shape. Their orbits are also approximately round. The cycle of life too is circular. Birth, childhood, teenage, youth, middle age, old age and death - these are the normal states of life of every creature. Cells in the body are destroyed continuously and are replaced by the new ones at regular intervals in a living body.

Similarly, new thoughts are born and the old ones keep vanishing from the conscious mind almost instantaneously. The process of active and lost memory works like cutting out the ripe crops and sowing the new seeds on an eternally fertile land and thus maintains the generative power of thinking in brain. The state of one's mind and level of his emotions and thoughts determines the origin and direction of evolution of his personality. The dignity of character depends upon that of the inner instincts and thoughts. Sound and righteous thinking should therefore get an important place in daily life. After feeding the stomach, the needs and aspirations of the mental domain become the driving force for all activities of human life. All the ends and means emanate from, and are searched and planned, within this domain. Thus, the good or bad consequences are also experienced by the mind only. At a superficial level, desires, ambitions and ego may appear as the predominant factors of life, but the fact remains that these are all outcomes of the aspirations and inspirations of mind only. It is essential for the strengthening and refinement of mental field that the malice existing there is cleansed. If the excreta were not removed, how would the stomach consume fresh food? Sharp memory is indeed an excellent source of intellectual attainment and progress and everybody aspires to have it. But, it should be noted that, excess of redundant and negative memory needs to be washed out regularly for a harmonious and creative functioning of the thought process. 21 The emotional excitements and depressions associated with joyous and dolorous events respectively are so effective at times that if they remain stable and do not wane then normal activities of the brain would be hindered and even living a normal life would become impossible. The feelings of animosity, anger, revenge, fear, excessive affection etc also cause abnormal pressure on smooth functioning of mind. Good that nature has kept such feelings and their memories as temporary and unstable – like any other information registered in the active memory; else, these would have eaten away the *prāṇa* of anyone whose mind is trapped into the clutches of such excitements. Too short memory or forgetfulness also makes life difficult; even the daily chores cannot be processed properly if one cannot recall small matters like - how much is to be paid or purchased of essential commodities or the addresses and contact numbers of those with whom he is ought to interact frequently,, etc. People may sometimes appear to be ungrateful on some occasions because of their short memory and therefore face counter reactions from even the near and dear ones. If one is not able to remember what one had experienced recently, his learning process would suffer severely; as a consequence, his intellect may not evolve above the level of a child nor would he be successful in practicalities of personal and social life..... In between the natural process of registration and depletion of memory, many a times the need arises when old thoughts – such as those pertaining to past experiences and creative interactions are required to be revived and given a fresh look for contemporary guidance... The difficulties arise when one's memory is unable to trace back such important pieces of lost thoughts or previously acquired knowledge.... People with extraordinary memory and balanced mind have an exceptional power of accessing the hidden or lost pieces of knowledge at will. The unconscious mind contains such colossal amounts of lost and latent memory whose expansion may resemble that of the cosmos. Mass and energy are never destroyed. The same is true of the mental outcomes of the activities of brain. These, such as the thoughts and sentiments, are conserved in some form in the latent layers of unconscious mind even after being washed out from the active memory. If one has the capability to link the conscious mind with these latent domains of memory and extract the desired information and knowledge, he would certainly be endowed with supernatural intellect. The potentials inherited from the ancestors are gifted to every individual through the genetic machinery. Whatever one had learnt in the previous lives is not lost completely. Memories of the present as well as the past lives are stored in the inner cores of mind. Although nature has devised the mechanism of wiping out the excess of memory from the active and conscious areas of mind in order to maintain ordinary functions of life at a normal pace, the virtually lost memory remains stored in the extra sensory layers of the subconscious and unconscious mind. A dead body buried in a grave is not seen on the earth's surface but it continues to exist in a transformed state beneath it. Similarly, the existence of important and also of the unnecessary memories remains alive within the unlimited expansion of the inner mind. A natural question would arise in the reader's mind here as – how to extract the important substance from this almost infinite repository of latent memory? How to enrich from the ancient knowledge acquired in the uncountable sequence of past births....? If one is successful in this endeavor, his intellect is sure to rise up to supreme heights and eventually culminate into the omniscient divine form. 22 The

existence of latent memory in the unconscious mind is now gaining support from the scientific community. The evidential incidences of memory of previous life or revival of past-memory after rebirth etc. were earlier neglected as being rare coincidences or mystical events drawn by illusions. Nonetheless, with deeper knowledge about the omnipotent human mind, researchers are now tending to investigate the facts associated with such observations and analyze the related hypotheses and available information on unconscious memory. Recent efforts are also focused on the issue of – “why not, the awakening of latent memory be considered as important as the acquisition of knowledge by the conscious mind?” Advent of neuroscience has offered extra support in this direction. The brain-functions associated with the memory-process are quite complicated. Collaborative as well as independent research in the fields of Neuroanatomy, Psychology, Molecular Biology, Biochemistry and Biophysics has attempted deciphering its mechanism. The findings so far have indicated two types of memories - (i) short or temporary memory, which recalls something only for a short duration of few seconds. For instance, a new telephone number seen in the directory is remembered till the time of dialing - usually one forgets the number soon after that unless used frequently...; (ii) long-term memory which helps recall the events, addresses, names and subject matter etc which were stored in the memory long time ago.... The Ribonucleic Acid (RNA) of the neurons ‘orders’ the synthesis of specific proteins in brain as per the type of ‘bits’ required to be imprinted in the memory. The corresponding (bio)chemical transformations inscribe the memory of associated events, knowledge or perceptions in specific strips of the brain. Whenever the conscious mind comes across a related event or information, similar (bio)chemical interactions take place and thereby the corresponding matters are recalled by activation of those specific portions in the registers of brain in this process..... Sometimes the psychological experiments of hypnotism are tried out to activate the lost or forgotten memory. Redcliff has described some such events in his ‘Memoirs’ and in a compilation of his works on human psychology. He has mentioned about a rich trader who had asked a mason to make a secret hole in the wall of his house. He (the trader) kept his jewelry and other valuables in that hole and got a normal wall constructed above it.... It was impossible to locate that spot by seeing or touching the wall from either side. Several years later, the trader’s son wanted to use this ‘treasure’ after his death. He called up the same mason and asked him to break the wall right at the specific spot. But the mason had forgotten about the hole; he just could not recall anything about its size or location. As a last trial before destroying the wall completely, a specialist known to the trader’s family was requested to hypnotize that mason to get some clue. Surprisingly, in the hypnotized state, the latter could easily recall about the making of secret hole; he took the specialist near the wall and indicated where exactly the hole lied inside the strong wall.... The treasure was found after little digging at that point....! Neuro-anatomical experiments have shown that in general, the reproduction of new neurons stops above the age of 35 years. The rigidity of nerves, which supply pure blood to the brain increases with aging after certain stage. Because of this the neurons do not get substantial amounts of fresh blood... This negatively affects the chemical processing of memorization too... This is one of the major reasons why old people do recall the events of their distant past very well but are prone to forget the matters of the present.... Special oxygen treatments help improving their memory but only temporarily. As the external supply of oxygen into the brain of the patient is stopped, his memory of the present events again becomes weak.... Apart from oxygen supply techniques and hypnotism-based therapies, bio-electrical excitation of memory centers in the brain stimulated with the help of electrodes is another popular remedy for amnesia as recommended by modern neuroscientists. Further research is being carried out to make these methods more effective without any risk. Ultimate success in these attempts would enable one to extract hidden layers of knowledge stored in the core of his memory since past lives and to acquire unlimited knowledge in the present life too. The mentally weak and dullards could also benefit from a sharpened memory and reach scholarly levels like the great Sanskrit poet Kalidas. Ancient scientists of human psychology had incorporated deep trance (sam³dhi), yoga nidr³ and other spiritual endeavors (s³dhan³s) as empowering experiments on intellectual elevation. The modern techniques of hypnotism and autosuggestion are elementary steps in similar directions. Electrical shock based treatments to awaken the inactive layers of memory are not free from severe risks. These could be replaced by the meditation based yoga s³dhan³s of dhy³na and dh³rañ³ to harmoniously activate and elevate the functions of specific centers in the brain. The yoga exercises of pr³ñ³y³ma are refined forms of the oxygen treatment. These offer natural and everlasting positive effects

without any external device. The modern psychologists and neuroscientists may therefore be reinvestigate the ancient sciences of yoga and spirituality in order to select most effective methods of treatment of amnesia and aboulia and also provide the opportunity to the ordinary minds to acquire extraordinary memory and brilliance. 24

Would Like To Be A Mobile Computer?

Expansion of knowledge and eminence of thinking is often imminent in people with sharp and sound memory. Forgetful persons are, on the other hand, not only deprived of deep knowledge in general, they also face difficulties and losses because of negligence of necessary tasks in day-to-day life due to their short memory. Some people are endowed with exceptionally sharp memory since the time of birth. Their extraordinary mental potentials often startle others. John Fraser was one such gifted person. He lived in Glosyestershire, England during 1901 to 1960. This man was born blind. His memory was so sound that he could easily remember the names and addresses of over ten thousands persons whom he had ever met or interacted with. He was able to recollect this information without any mistake just by hearing the voice of any of these people.... Filmund Iris also had similar memory. Incidentally, he too was blind since birth. The Government had selected him for the job of a postman because of his terrific memory. He used to sort and arrange the deliverable letters with the help of an assistant. The latter used to read the addresses loudly - this was sufficient for Filmund to store the entire sequence of corresponding addresses in his mind. This is how he was able to distribute, on his own, hundreds of postal deliveries every day. There was never any mistake on his part or any complaint against him during his tenure as a postman. The example of Mr. Nebur of Germany is rarest of its kind. Exceptional memory of this man had popularized him across the world only in a single day. Once the office where he used to work as a clerk was caught under fire. Many important papers and files got destroyed. Nebur's supernormal memory came into light when he successfully reproduced the lost records in a short span of time. Many of these records, reference numbers etc, were verified against the copies available with the clients and no mistake or slip of memory (on Nebur's part) was detected. His hidden talents were also recognized on many other occasions after this amazing incident. John Jacob of Jerusalem, Israel was popularly known as a mobile computer. Over twenty thousands poems and names and addresses of about fifteen thousands persons around the world were known to him by heart. Once a friend decided to cross-examine Jacob's memory... He jokingly asked the latter to narrate any poem, which begins with the word sounding like 'Sa'. Interestingly, Jacob responded almost instantly and recited over 150 such poems in an hour's time....; he stopped only after his friend gave up and requested him to do so. A courtier of King Bhoj of Medieval India had made place in history because he was able to recall and reproduce, without any error, any subject matter or verbal discussion in any language heard by him for 24 minutes or lesser duration at a single stretch of time. Saint Chaitanya of Bengal was gifted with a supernatural grasping power; he used to remember everything just by listening it once. An erudite scholar of his times once called him for a $\text{Ī}^3\text{str}^3\text{rtha}^8$. This scholar recited a hundred line new ĭloka created by himself during the period of this competition and asked the saint to reproduce a particular line and elaborate upon its meaning.... Surprisingly, Chaitanya not only responded satisfactorily but also narrated the entire ĭloka as it is. The arrogant scholar was amazed and he became a disciple of this great saint. Looking at the above examples, one might feel that supernatural memory is only God-gifted or inherited since birth. Nevertheless, human history is not short of examples where people have endeavored to sublimate their own memory by systematic control over mental concentration. Each 25 one of us remembers certain events or matters of importance or of significant impact throughout the life while many other pieces or knowledge and information are easily wiped out of our conscious memory.... It is said that our interest and attention in the subject and the importance and influence of an event or assimilated knowledge plays a predominant role in registering of the associated matters into deeper domains of our memory which can be awakened by sincere practice. According to Karl Seschore, a noted psychologist, an average man uses only about 10% of his natural memory. Remaining 90% is left unused in a haphazard or dormant state. This is why one generally remains intellectually deprived or dull. If one is alert and systematically attempts to awaken and properly use the natural memory, the latter would be activated creatively and offer intellectual benefits of higher order. Modern psychologists have deciphered three major causes of lack of memory: (i) lack of aspiration and pre-conditioning of mind to remember something;

(ii) inattentiveness or lack of mental concentration; and (iii) lack of interest and enthusiasm in what is being read or heard.... If these causes were removed, the usual complaints of short memory or forgetfulness would be eliminated to a great extent in a natural way. It is true that some people are born with supernatural memory as divine endowments but that does not mean that others are deprived of the opportunity of rousing the natural potentials of mind. It should be remembered that appropriate exercises and dietary control improve weak organs and bad physical health. Many a times, the children born as physically handicapped, are seen to overcome the disabilities through timely treatment and sincere attempts. Similar is true in case of mental weaknesses. Thus, one should not think that mental dullness or lack of memory is a permanent disability or weakness, which cannot be improved. Professor Mannheim states that if the origin and outcomes of events are also noticed along with their visual pictures or imaginations, one would remember the associated details more easily and for a longer duration. Psychologists like John Irvin emphasize that greater interest should be cultivated in the subject matters which are required to be recalled in future.... One should be cautious towards the harms of negligence and forgetfulness. This keeps the mind alert. One should also realize the necessity and advantages of remembering certain things. It is useful to take a mental note of when and how the related matters could be required and what could be achieved by acquisition of associated knowledge. This way, the mind is better conditioned and gets trained in registering relevant pieces of information and knowledge more efficiently. As substantial amount of thinking is applied in connection with above aspects of memory, the latter is less likely to be waned or depleted in general. Some practical tips for systematizing and improving the memory include the following: (i) Make an instant analysis of the events, matters, information etc, as and when the mind comes across them, to evaluate their relevance and the necessity and importance of memorizing them. (ii) Classify which issues or aspects are to be remembered. (iii) Think of the selected pieces of information and knowledge more thoroughly with deep mental concentration. (iv) If the subject matter is very important but complicated and vast, make sure that the main points are understood and memorized by repeated mental recitation, thinking and contemplation; if needed, make written notes for greater impact on the memory. Sincere practice of the above mentioned elementary techniques with interest and attention trains the mind at a faster rate and soon the latter learns to perform the above steps as a natural habit. The 26 memory sharpens gradually and if one is motivated and determined, it rises up to the level of that reflected in eminent intelligence and exceptional talents.

The Magic Of Human Brain

Every component, even the tiny cells of human body are marvelous creations of nature. The human brain is superior to all the other organs because its function is not only confined to the physical activities of body, rather, it exists as the source and representative of the linkage between the individual and the cosmic consciousness. The apparent activities of the gross body as well as the latent potentials of a human being are governed by the conscious and unconscious mind. In view of its infinite capabilities and constant connection with the cosmic consciousness, the human brain (mind) can be regarded as powerful as the eternal linkage between the soul and the divine Supreme. Decipheration of the immense complexity and infinite capabilities of human brain is as important and difficult field of science, as that of elucidation of the mysteries of nature. If even a fraction of the arcane functions of the brain and the latent potentials of mind are understood and used righteously, the associated accomplishments of the power of consciousness would prove to be better than colossal mountains of natural resources. The science of cetan (eternal consciousness) and spirituality is indeed the supreme science of the Brah®. An average human normally uses a negligible fraction of the true potentials of his brain (mind). It is like only a small bowl of water from a gigantic ocean... If some of the unused power of consciousness existing in this unique source is awoken and activated creatively, the progress, prosperity and power of humans would advance uncountable steps ahead of the present marks of tremendous successes. Frank Renée, a resident of Albania, USA possesses unique spiritual power. Although he knows only one language - English, he can fluently repeat a text spoken in front of him in any language. Interestingly, he can also reproduce this text in the same style and tuning in which it was spoken. He can even complete a half-spoken sentence without any pause; his super-sense automatically gets the right words that the

speaker sitting near him intends to speak. He speaks simultaneously with such a resemblance with the style and language of the other person that it appears as if the two voices are produced by the two tape recorders that are playing the same record.... Frank has also sung with professional singers in some television programs. His ability to synchronize his voice with the given composition is so perfect that the audience feels that he has undergone adept training in singing that particular song..... In one of the shows, he was to compete with a lady called Lolobrigida who knew many languages. She spoke fluently in several languages and different combinations of the same; surprisingly, Frank could mimic her with same speed and without any mistake. Lolo even uttered some artificial words, which did not belong to any language. Frank was prompt again in reciting the pronunciations as it is. Manifestation of supernatural capabilities of human brain poses ever-new questions before the scientific community. Because, the associated extraordinary potentials are found to annul the established scientific rules as evidently as the stormy winds blow freely above the sky-scrappers. For instance, look at the following examples reported in Modern History. Giyovani Gallenti of Italy used to read so easily in the darkness of nights - without any artificial source of light, as an ordinary man would do in bright sunlight. Mr. Gopikrishna, employed in the 27 education department of Jammu, India used to teach in a primary school. Though he had not learnt any language other than Hindi, he once got a feeling as if he had a natural command over many languages... Soon his brain became a center of attraction for researchers when it was found that the supernormal awakening of his latent or inherited memory had overnight made him versatile in German, French, Greek, Arabian and Sanskrit. He could converse very well in these 'unknown' languages and even write sentimental poems in each. James Christen of Scotland had learnt twelve prominent languages - including Arabic, Greek, Jewish and Flemish language - of the world by the time he entered the teenage. More astonishing was the super brain of Luis Kardek of France, who, at the age of four years was able to speak excellently in English, French, German and some other European languages... It is said that he was able to read the holy Bible when he was hardly an year old. At the early age of six years, he became a recognized scholar of Mathematics, History and Geography. Blaise Pascal's original research paper on sound had startled the scholars of France and the rest of the world. This eminent scientists-cum- philosopher had completed that paper when he was just twelve years old! John Philip Verotier had obtained a Ph.D. degree at the age of fourteen years. He had remarkable grasping power and was able to reproduce as it is, whatever he had ever heard or read..... Another super intelligent scientist of Trinity college was appointed as a Professor of Natural Sciences in the Mary Land college during his student life. His appointment was subject to the condition the he would obtain certain degrees of higher qualification within two years...; This genius completed the same before the scheduled time and continued further studies along with his teaching work. Philip Heridhelm was studying in the secondary classes of the Rose Public School of England when the management had negotiated with him to make him take over the responsibilities of head mastership of the primary shift. He was only 16 years old at that time; still, he could transact all the responsibilities adeptly and also continued performing excellently in his higher studies. One British poetess had gained so much popularity at age of 18 that she was elected to the House of Commons by an overwhelming majority, against the law of lower age-limit for the membership of this house. An American citizen named Paul Murphy had completed his post graduation along with a degree course of Law at the age of 19 years. There was no barrier of age for appearing in any exam those days. However, according to the constitution, he was awarded the degree of Law subject to the condition that he would not commence his practice as a lawyer until he becomes 21 years old. The founder of Chicago University, Sir William Rene, was only 12 years old when he had completed the secondary education and entered the Ohio college. He laid the foundation of the reputed university of Chicago much before reaching the legally established age of maturity. The local public, influenced by his eminent personality, had given wholehearted support in the formation of this huge institution. Many other colleges also wanted him to join their faculty; as many as nine heads of the departments had vacated their posts for him. Sixteen years old Don Francis was the youngest professor of History in the State University of Columbia. Because of his exceptional talents, twelve years old F. Augustie was appointed as the officer in-charge of the Royal library in Paris. He rose up to the level of the chairman of the governing body of all elite libraries before reaching official maturity age. His tremendous knowledge of books and adept management skills were unparalleled. Ms John Baptist Teiste, also of France, was selected to the

membership of grand assembly when she was 13 years old. Only some extraordinarily eminent 28 personalities used to receive this honor. This assembly was the highest administrative body in that country after the French revolution. Victor D. Joy is remembered in history because of her superb memory. She remembered complete literary works of Voltaire by heart. It should be noted that this work is compiled in 36 volumes and consists of over three billion words. Joy was selected for the well-deserved membership of the French Academy when she was a 13 years old young girl. Another academician of similar genius was Von Pappenheim who became the Reader Count of Aldorff University in Germany at the age of 14 years. Later on he joined the defense services and worked at important, high ranked positions in the army. Noted philosopher Jeremy Bentham had good command over Latin and Greek since the age of four years. German mathematician, Zacharius was able to orally perform arithmetical operations on large numbers. Mentally multiplying numbers as large as those up to 200 digits was an easy task for this human computer. A mechanic in a car garage of America gained popularity because he was able to recall the numbers of hundreds of cars ever repaired by him. Not only that, just by looking at the car for the second or higher times, he used to give all the details of its earlier repair operations. A couple of decades ago, the prestigious Oxford University had made special arrangements for the studies of a four years old girl in the department of Mathematics. This girl, Babble Thompson, had exceptional hold over Arithmetical Operations, Trigonometry and Physics before going to any school. Special panel of educationists was appointed to decide the mode of higher level teaching for such a young child who had not even been exposed to the Kinder Garden. The performance of eight years old Jeru Kolbern of Bermunt had startled many great mathematicians in the pre-calculators era. This boy, without undergoing a systematic training in Mathematics, was able to solve difficult problems without the help of pen and papers. Kolbern quickly solved many hard problems, which only a handful of mathematicians could solve in substantial amount of time. Remarkably, this little boy did not even know the elementary formulae that are taught in conventional schools of Mathematics. An interesting incident of mathematical problem solving took place when expert mathematician Jedia Boxton had almost given up solving a difficult problem after trying hard on it for a long time. One fine day, he happened to meet John Martin Dess who was well known for his exceptional memory. Boxton discussed the above problem with Dess. The latter found a solution in a matter of few minutes. The extraordinary ease of Dess with the intricacies of Mathematics had made him renowned across the globe. Of more recent times, Mrs. Shakuntala Devi of Bangalore, India had been recognized as 'Wizard of Arithmetic' or 'Mobile Computer' because of her supernormal talents in number crunching. As late as in 1960s, during a television show in London, she was asked a problem which was designed by a group of learned mathematicians of Europe. Shakuntala Devi responded in less than a second that the question was wrong. The organizers of the BBC programme arranged for verification of her claims. Every one was amazed to note that the question was indeed wrong! In another challenging show, Shakuntala was to compete with a top-of-the-line computers of the 1970s at the New South Wales University, Sydney (Australia). The electronic computer - costing 20 thousands pounds that time was operated by the computer experts and mathematicians like R.G. Smart and Berry Thromton. Varieties of questions in Arithmetic, number theory, calendars and related topics of Mathematics were posed before the two contestants. Each time, Shankutala Devi used to give correct replies 29 much before the computer. She never made any mistake with numbers. Her answers used to be correct up to a greater accuracy than the calculating devices of those days. Supernatural talents of human mind have also made recognized place in the fields of art, literature and culture. Ravi Kiran's case is the latest evidence in this regard. The Madras music academy had recently announced a special scholarship for this two-and-a-half years old kid in recognition of his exceptional talents in Indian classical music. This little boy had mastery over many musical instruments. He also used to point out the mistakes, if any, in the performance of others - including experienced musicians. Sir John Fielding was a highly respected judge of England. Though he was blind, his ears were so sensitive that he was able to recognize the voices of thousands of criminals and clients whose cases were ever heard in his courts. He could even recall the names of the concerned persons and references of their cases. L'Cruze also had extraordinary memory. In one of his demonstrative shows, he heard twelve poems, of twelve different languages, which were foreign to him. Almost instantly, he had repeated all these without mistaking a single word! The immense power of human mind has been the focus of research of many scientists. A psychological investigations

committee has published a review of some recent results in a volume entitled 'The Human Personality and Its Survival of Bodily Death'. This book has also cited examples of child 'prodigies' who were more knowledgeable and talented than the expert-performers in the diverse fields of Arithmetic, Geometry, Music, Fine Arts etc. Revered Shankaracharya had taken his mentor by surprise because of his scholarly knowledge at very young age. If a child has extraordinary talents or in-depth knowledge of different subjects at the age of 5 to 6 years, without undergoing any schooling or having an exposure to any book or training, it strongly indicates that the knowledge and talents inherited from the previous births of this soul have aroused in its present life. The live examples of this kind evince the independent and eternal existence of the soul and the intimate linkage of mind with its conscious manifestations. The example of Henris Hennanken makes significant addition in the above series. This boy was born in Germany about 200 years ago. He was able to state thousands of proverbs and idioms in Latin at the age of three years. Simple operations of Arithmetic were easy games for him. At this pre-schooling age, this child had also shown keen interest in learning French and Geography. Wiener, the author of 'Cybernetics' used to discuss and solve problems of science along with 18 - 20 year old students when he was less than one-third of the latter's age.... Celebrity writer of German language, Goethe, had begun excellent poetry since the age of nine years. Vieron Scott and Darwin - the founders of modern theory of evolution, were also endowed with such supernormal talents. Fifteen years old Blaise Pascal had got his first scientific paper published in a reputed journal; he had proved over hundred theorems and propositions there. Heimann Keim of (east) Germany was, for quite some time, a center of attraction of the researchers in Psychology and human-brain. This three years old boy was able to not only read but also thoroughly analyze higher level literature in German. American physicist, Dr. Stevenson, has compiled reports on about 600 such incidents where the descriptions of previous births narrated by some people - especially children of age below 14 years, were found to be correct. About 170 of these authentic examples belong to India alone. 30 Similar to the examples of child prodigies, the demonstration of remarkable talents in people during the last phase of life indeed proves the magical potentials of human mind beyond the barriers of age and time. George Bernard Shaw used to write so much at the age of 93 which was significantly more than what he could at a younger age of 40 years. Goswami Tulsidas had commenced writing the great scripture 'Ram Charit Manas' when he had crossed 50 years. So wonderful was his poetic insight and mental concentration at this age that he could complete this - most glorious literary work in the history of mankind - in a short span of two years. Greek writer Sophocles authored his celebrity play, "Oedipus" when he was in his nineties. Interestingly, most of his creations which were honored in the world of literature and art took shape when he had traversed 80 precious years of life. Sagacious English poet, John Milton had become totally blind when he was 44. After this tragedy, he had devoted his mind to the service of literature and produced the noble volume of his verse in 'Paradise Lost'. His other popular book 'Paradise Regained' was published when he had celebrated his 62nd birthday. Goethe, the renowned scholar of German language, had contributed his excellent literary work entitled 'Faust' in the eighth decade of his life. John Dewey of America had developed scholarly interest in philosophy in his late sixties. So vast and deep was his study and philosophical insight that at the age of 93, he was considered as most eminent of the erudite experts in this intellectual discipline. Augustan Thierry was a reputed historian of France. He had completely lost his eyesight in very young age. Adding to his cursed fortunes, he also suffered an attack of paralysis later and became partially handicapped. Despite his physical disabilities, he continued working on his favorite subject. He wrote over twenty scholarly volumes on History. Because of his inability in writing after paralysis, he used to dictate the contents of the book orally. These used to be scripted by his assistants. Above examples and other references of exceptional talents and zeal of some people reflect the infinite capabilities of human mind. This potential exists in everybody at every age. What is required is sincere attempts to charge it up by mental refinement and concentration. Sometimes the inherent samsk³ras support natural awakening of talents in some people. The principle of 'Deserving from Firm Endeavors' applies to every field of life. Industriousness and creativity always bring good results. Different activities of the gross world continue in view of the fact that sincere attempts and hard work returns due success. The same works in the case of spiritual s³dhan³s too. If these are based on genuine principles of spirituality and are adeptly performed, multiple benefits of their completion are certain to occur. Fructification of the s³dhan³s pertaining to the refinement of the subtle power of the Manomaya Ko³ia (mind

cell) results in sublimation of the mental strength, hidden talents and intellectual potentials. Firm determination and sound concentration of mind are fundamental to the above s³dhan³s. Cultivation and refinement of these qualities is the key to rousing the latent powers of mind and thereby accomplishing supernormal talents.

Manifestation Of Divine Powers In Human Intellect

Parson of Greece was renowned for his extra-ordinary command over Milton's poesy. He had crammed this verse by heart and was able to recite them from the first to the last page without forgetting a single word. Not only that, he could do so in reverse order too. He recited every poem from last page to the first with equal perfection.. Similar wizard of memory was Gambetta who was able to recite complete works of Ruth, Ossian and Victor Hugo in forward as well as backward order... People used to comment that there seems to be an electromagnetic tape fixed in Gambetta's brain, which can record each and every work ever heard or read by him attentively and reproduce the same — like a tape-recorder. Mr. Joseph Burnheart Duncan had nine secretaries for different languages when he was the director of national library of Munich. He had such a control of mind and command over several languages, that he used to dictate official letters and other deliberations in nine different languages to all his secretaries simultaneously. He had also memorized the Bible by heart and was able to reproduce the corresponding sections completely whenever asked from any page of this Holy Scripture. Recalling the location of the million billions books in the library was so easy for him as if the catalogue was kept open before his eyes... It was said that his brain (intelligence) would 'weigh' more than any amount of linguistic knowledge and stock of information existing on the earth. Karl Wilhelm Von Humbolt, a popular and eminent poet of Germany was born in 1767. He got married to Caroline Von Decroden at the age of 38. Caroline was extremely beautiful and virtuous lady. Humbolt used to write a new poem of hundred lines for her every day since they tied the nuptial knot. This sequence continued for forty-four years till he survived. The last six years of his life were spent as a widower. He used to write about hundred lines of poems every day while sitting near the grave of his beloved wife after her death. This way he wrote 1606000 lines of a verse – not a single one of which was repeated. If this compilation is published in a thesis shaped book, the book will be around 25 feet in thickness containing about 44116 printed pages! It was before the French revolution when an innocent was proved as guilty in a marshal court. Renowned attorney Louis Bernard came forward to defend his case as per the request of some wellwishers. Although the court had ordered death sentence to the accused, Bernard appealed a stay for five days on the grounds that the King, the ultimate authority was out of town.... However the court showed inability in staying the hearing any more.... Then Bernard began his defensive arguments and continued them for 5 days and 5 nights presenting almost the entire knowledge on law and justice framed anywhere in the world. His rigorous deliberations would have continued even longer, had the King not arrived by then...! The latter too heard the case and granted merci pardon to Bernard's client on the basis of his excellent defense. It is said that when Swami Ramtirth was going to America, two British men travelling in the same ship fought with each other one day. Swamiji was also sitting nearby that time. The dispute led to a court case where Swamiji was also asked to speak as an eyewitness. He said — "I do not know who is guilty but I can narrate the entire discussion and heated exchange of words between the two fellows". He indeed did that in the same language in which the duo had quarreled and thus helped fair justice take place. Francisco Maria Grapaldo was born in Parama (Italy) in 1464. His peculiarity was that he used to write his poems with both the hands simultaneously – in two adjacent pages of a notebook. People used to consider that he had two brains. As brain research has proved it now, human brain indeed has two parts, both of which can function independently. However, it is not clear how the two function in case of the above kinds of extraordinary intellectual talents and supernatural memory. Whether the intellectual abilities are developed only through dedicated learning, sound reasoning, training and endeavors to awaken specific talents, or because of some exceptional potentials of human mind pertaining to some elements of spirituality? Before proceeding further to search an answer, one might look at the following examples, which have glorified human history. 32 Duncan Macentire, born in 1724 in Scotland, happens to be as majestic a poet as Surdas and Tulasidas of India. This great poet too, like the latter, was unable to read or write. Nevertheless, his poesy has secured a highly honorable, unparalleled position in Scottish literature. Homer and Socrates were great saints,

literary scholars and philosophers. They too had never undergone any formal education. Saint Kabir of India is another orgulous poet whose verse is an integral part of master level teaching and doctoral works in Hindi literature although, he was himself an illiterate. He used to think and write in his own mind and utter his feelings through the language of his heart as songs in the dialect spoken in his village. These and a variety of other living examples indicate that scholarly talents and intellect need not depend upon the mode of education and amount of acquired knowledge. It is an intrinsic property of mind that can emerge from spiritual refinement of the inner self. Ancient Indian philosophy of yoga — Yoga Darīan mentions that practices of spiritual s³dhan³s under the disciplines of Brahmacharya (chastity) and other ascetic methods of self-restrain help sublime transformation of the intellect and activate its subtle layers of prudence, acumen and intuition. Success of these s³dhan³s can bestow many kinds of supernatural talents and even endow one with the potentials of reading others' mind and clairvoyance of distant past and future beyond any barriers of time and space... The supreme level of pure, sagacious and righteous intellect is termed as —ata@bhar³ pragy³ in the Indian scriptures. It is prayed from the Almighty as – Sannimedh³ May³siṅa Sw³h³ Medh³@ Me Var³ṅa Dad³tu Medh³magni; Praj³pati; - Yajurveda 32 | 13, 15 Meaning: May God inspire pure intellect in us. Oh God Var³ṅa! kindly offer us enlightened wisdom. The scriptures convey that endowment of divine qualities in mind awakens —ata@bhar³ pragy³. It is only the latter which can attain the eternal glow of Brah³. Particles of coal when kept in fire begin to glow bright and red. Similarly, human intellect, if linked with the cosmic consciousness, illuminates with divine light and culminates up to the omniscient level. Inner emotions, afflatus and pure knowledge are the elements of spirituality. They emerge through inculcation of divine virtues. Willpower and self-restrain may be enhanced without absolute devotion to thee but the evolution of intellect cannot. Today we see significant increase in people's knowledge but this would remain incomplete without the rise of prudence (pragy³). This is the reason why in spite of having high quality education, most people are seen dismayed and moving in a dissatisfied state in a world of internal darkness and ignorance. Neuroscientific and psychological research in modern laboratories has so far revealed that the million billions neurons in the brain serve for the storage and retrieval of every kind of knowledge and information received by the sense organs including the conscious mind. The nuclei of these tiny processors hold the key to activate their functions. What triggers inherent memory and emotions is not yet known. Perhaps it is the extra-sensory role of divine consciousness (subtly existing in the soul) which generates and manifests the conscious activities of the neutron mass present in the nuclei of brain elements. Let us hope, further advancement of neurosciences would soon show us some light in this direction. 33

Brilliance Beyond The Barriers Of Maturity-Age

The hypotheses and theories of gene-driven inheritance in successive generations seem to work well at the level of the gross body. However, the variations and characteristics of emotions and intellect are too many, too subtle and too complicated to be explained under the current models of genetics. Very often the offspring are born with such mental tendencies and specialty of nature that it appears more logical to consider that these features of personality are unique properties of the individual souls and these are shaped according to the accumulated samsk³ras of their past and present lives. Ample examples of exceptionally bright children of most ordinary or even dull parents are available in the history of the world. Many of these children had even manifested supernormal faculties of mind at an early age. When we look at the lives of people who without undergoing any special training or treatment, were found to be exceptionally talented, we do not find any apparent reason and consider it to be some special feature of their brains. Extraordinary mental concentration and perseverance of specific hobby sometimes awakens the latent intellectual potentials of some children.... The sagacious talents of such children indeed demonstrate that there is no minimum age to be reached for the evolution and expression of intellect. Thomas Edmond Clint of Kerala passed away on 15 April 1983 at an early age of 7 years. However, in this utterly short span of life he had created about 20,000 sketches of Fine Arts which even a matured artists would not be able to produce in his long enough life. Clint was the only son of M. T. Joseph, an officer in the state bank of Travancore. Thomas's parents are religious minded kind people. Though they never had any inclination for Fine Arts, they used to feel proud of their born-talented son. When they had observed one year old Clint making some scratches on the walls with the help of

wood or coal, they thought it to be a child's play; they even tried preventing him from spoiling the walls this way. However, soon it became clear that his scratches were not ordinary. His mind was totally engrossed in making some artistic sketches whenever and wherever possible. Around the age of 3 years this boy was admitted to a local hospital because of some kidney problem. There too he continued his practice of fine-arts as and when possible and used to surprise the staff and visitors by his marvelous talent. Once his hand got hurt; he beard the pains but did not stop his favorite creativity.... Though he could pass only K.G., he received many gold medals and awards in recognition of his exceptional artistic talent. Moments before his death, Clint told his mother that he is going into deep sleep so nobody should try waking him up.... The UNICEF has preserved the greeting cards and calendars designed by this little master along with many of his other sketches and paintings to serve as a source of inspiration for the children all over the world. Devangan Dutt was born in Calcutta in 1973. By the time he was nine years old, this boy had attained extraordinary talent in vocal music. He received the 'best singer' award in a coveted competition in 1983. He had begun singing in proper classical tunes at the age of 3 years. His excellent performances with Ravindra Sangeeta and devotional songs of Nuzural had attracted many music lovers and he was invited in many state and national level cultural functions since his childhood. His superb talents were rightly recognized in the diamond jubilee ceremony of the All India Music Society in New Delhi, where he was honored with the title of 'Barnet Singer'. Interestingly, this little boy had shown distinguished performances in the field of sports too.... 34 Mr. Barawadekar, an Indian engineer from Hyderabad was posted in Wachtel corporation, Houston (USA), a few years ago. His four years old son, Rohan, was just a student of pre Kindergarten when people noticed his extraordinary command over English language. He used to make use of such selected vocabulary in his oral and written expressions which even the children double his age would never be able to think of. He had secured national championship in Houston's word-competition. His teachers and acquaintances used to be very surprised, as this boy was able to spell a word correctly even if he was hearing it for the first time. His memory too was quite remarkable. At that little age, he could narrate, word-by-word, everything from the books or newspaper just after one reading! The history of India has witnessed, age after age, the emergence of great personalities who were also endowed with supernatural intellectual boons. Maharshi Arvind happens to be one of those sagacious glories. He had started creating high quality English verse in his childhood and gained literary expertise in many other foreign languages before crossing the teenage. Rabindra Nath Tagore had translated the popular Shakespearean play in Bangla when he was only 14 years old! Indian nightingale Sarojini Naidu had received significant recognition for her hundred-line poem in English which she had presented in her melodious voice at an early age of 13 years. Renowned play writer and actor Harindra Nath Chattopadhyay's first play 'Abu Hasan' was scripted when he too had just entered the 14th year of his life. Seven years old Satwalekar had mastered over Sanskrit language. This had led him to become an eminent scholar, an authority on Sanskrit literature at later age. Vivekanand had excellently expanded his mentor's mission during his teenage. By the age of 30 he had re-established the glory of Indian culture around the globe through his historic oration in the Chicago conference on world religion. What this great sagacious disciple of Rama Krishna had accomplished in his small life of 39 years that may not be achieved by hundreds of talented intellectuals collectively. Appearances of child prodigies in the western countries have also attracted the scientific community from time to time. Martin J. Spelding, a student of Saint Mary College in Baltimore, had become a professor of Mathematics at the age of 14. He had two more years to formally complete graduate schooling at that time. But, degree had no meaning before his matured skill and insight in the subject. Later on, he also became the Bishop of Baltimore. Ten years old British boy Baron Gustaf used to speak as many as nine European languages with good command. It is a testimony to his supernormal intellect that he was appointed as a judge in the supreme court of Sweden when he was still a teenager – 19 years old. Davis Leffrets was the youngest (only 16 years old!) professor of Latin and Greek in the University of Paris. In the same age group, Andrew Muller of Germany too had gained literary command over all European languages and started contributing in the world of poetry. More remarkable was the case of George Drawiski, who had mastered over Geek and Hebrew languages when he was only a five years old child. He was conferred the honour of the principal priest of England at the age of 17 years. Karlsuit of Germany has also made world record in demonstrating intellectual vigor in the childhood. He had passed his middle schools and taken admission in the Lipstzig University when he was 9 years

old. By the time he touched 14, he had completed a post graduation along with a doctoral thesis. In view of his exceptional brilliance, he was allowed to register for the higher degree of LLD and he passed this too with glorious performance in the next two years. Soon after, he was appointed as a professor in the prestigious Berlin University.

35 The above examples pertain to supernormal intellectual attainments in the academic fields. Such astonishing potentials are also seen in the other walks of life. These include extraordinary capabilities of firm governance, decision making and management with matured wisdom and foresightedness along with intrepid courage and vigor at a very young age. The following are some of the notable examples of above kind, which are popular in modern history. Count Tende had taken over as the Commander-in-Chief of the French army and also as the head of the government when he had just entered the teenage. Another warrior, Col. Marquis had joined the French army when he was 8 years old. He served the army for 52 years at various positions until his death as the Field Marshal. Chhatrapati Shivaji had conquered the fort of Toran in Maharashtra (India) when he was only 19 years old. Within next two years he had won over many arduous battles - including that for the Purandar fort. King Ranjit Singh of Punjab (India) had also captured the Kingdom of Lahore at the young age of 19. Louis XIV was enthroned as the emperor of France when he was a 4 years old child. The Prime Minister Majira used to look after the state on his behalf. By the time Louis celebrated his 22nd birthday he had already taken direct charge of the entire nation in his own hands. He ruled over France for the longest period in the history of Europe. Peter the great of Russia occupied the throne at the age of 17 years. His attempts towards uplifting of his backward country are recognized as most significant as compared to that of any other King or Czar in the history of Russia. That is why, even today, he is cited as Peter - The Great. The little corporal Napoleon Bonapart had secured the highest rank - 'The General' of the French army when was 24 years old. Within next three years he had enslaved the army of Italy too, although, this duration was a battle period of hardship for him in which he was also oppressed and sent to the jail because of the scandalous activities of his opponents. His terrific rise from a state of total ruin in a short span of three years still exits as the rarest example of self-confidence and intrepidity in the history of mankind. Rani Lakshmbai – the immortal glory of great women warriors of India had to bear the responsibility of the state of Jhansi upon her young shoulders in a critical period of challenging threats from the mighty British. However, this eighteen years old lady had not only governed the people efficiently but also fought with the internal conspiracies and responded the animosity of the invaders with unique dignity. She made the British have the bitter taste of defeat in several historical battles. The chapters of history dedicated to the memory of the above kinds of great leaders adds to the conclusion that human beings are indeed endowed with infinite capabilities — be that memory, intellect, courage or any other facet of mental and emotional strength or physical potentials. In ordinary case, these capabilities remain in a waned state except for their negligible fraction being used in day-to-day activities of life. If even a part of this dormant source is awoken and channeled creatively, one can do wonders at a very young age including childhood... Neither of the lower or upper limits of age can put any barrier on the possibilities of activation and sublimation of the subtle powers of human brain.

Growth Of Intellect With Aging As a general principle, consumption and utilization gradually lead to a decrease in the amount, efficiency and life-time of all material based physical means. Parts of a machine require constant servicing and replacement for efficient functioning after substantial use... Our body also needs rest 36 and recreation after every phase of significant physical and mental work in order to get rid of the fatigue and to regain energy and fresh alacrity. Howbeit, this principle of 'decay due to continuous use' does not apply universally to every aspect life. Adoption and assimilation of habits and mental tendencies grow with compounded multiplicity over time like the mushrooms. The population of mushrooms grows exponentially wherever it finds moistures soil. It can cover the gardens and forest lands in the monsoon season. Malice of evil tendencies establishes its roots as and when it finds any weakness of character. If not eliminated in the beginning, their hold becomes more and more firm and expands its influence in one's nature.... Soon the associated habits and tendencies become integral part of one's character. Addictions of liquor, gambling, erogenous sensual pleasures etc are manifestations of such effects. Longer the period of their adoption, rarer is the chance of their depletion. Only a handful of addicted persons get success in uprooting the abominable habits in their lifetime. Except by the endeavors of awoken internal power and spiritual faculties, the addicted body and perverted mind can never come out of the

dreaded clutches of evil tendencies. Long-term dedicated practice under adept guidance is essential towards enhancement of efficiency in a variety of physical and mental activities. Sportsmen cannot win any competition even at a small local level if they are not regular in practising their game. Same principle of “perfection by proper practice” applies to the success of wrestlers, literary scholars, musicians, orators, students, etc. Regularity of physical exercises keeps the machinery of gross body fit and energetic. Hard labor at a stretch brings fatigue - is true, but, at the same time, it is also true that accidie and inactivity tend to weaken the active functions of the body components. An unused iron knife gets rusted and eventually becomes blunt and useless, a lethargic body too becomes rigid, weak and unsuitable even for the daily chores. The need for constant alertness and creative actions is more prominent in the case of brain. Until recently it was generally thought that mental or intellectual potentials begin to deteriorate in old age. However, the outcome of advanced research has shown something unexpected. It reveals that — although, aging usually has a negative effect on the body and the associated regularity functions of the brain after a certain age (above fifty years in general), the ability of mind may manifest the reverse if kept under creative use with intellectual creativity. Dr. Maryan Diamond of a Californian university has conducted long-term experiments to verify this effect. Dr. Diamond’s initial experiments on some rats had shown interesting effects.... The rats captured inside a cage under otherwise healthy conditions became dull while another group of their fellow beings showed remarkably different behavior. The latter group of rats was kept free with access to a variety of eatables and under healthy conditions for playing and suitable training.... Surprisingly, the structure and chemistry of the cortex of these subjects also showed significant changes. It was found that the neurons of the cortical layers of these trained rats had grown bigger in size. Moreover, the number of glia cells – supporting the connection and communication between the neurons had doubled in the brains of most of these rats. These transformations were also manifested in the trained activities of the latter. They could even perform certain tasks, which are almost impossible for normal rats. The controlled learning experiments of the above kinds were also repeated on the rats of age 766 days or more. This age of a rat is equivalent — in terms of relative physiology and chemistry of the brain — to that of a 76 years old man in general. The results were interestingly in close agreement with those on the young rats. Namely, the cortex of the trained group showed similar changes and so did the behavior of these old rats. Experiments conducted by Prof. Diamond and colleagues on 37 several other animals have also demonstrated that the notion of ‘mental deficiency with aging’ is not correct; rather, continuous training, practice and creative use strengthen and upkeep the mental potentials growing at all ages. Posthumous experiments on the brain of Albert Einstein also showed results in support of the above conclusions. Observations and analysis of the internal structure of his brain showed that, it was significantly different from that of an average man only in two respects. Namely, the number of glia cells per neuron was high and the neurons in his cortex were larger in size; or, in other words, his cortical layer was thicker than that of a normal human brain. It is notable that Albert Einstein, the most distinguished scientist of the century, was a weak student in his childhood. He often had to face the anger and scolding of parents and teachers because of his poor academic performance. The scornful attitude of others might have triggered his inner instincts to do something worth...., because of which he began to study with more concentration and engaged his mind in creative problems solving in the subjects of his genuine interest at a matured age. Consistent practice and associated increase in his mental concentration seem to have brought about supporting changes in his cortex to and awaken his intuitive potentials which resulted in sagacity and acumen of his mind and eventually gave rise to his history-making scientific foundations like the Special and General Theories of Relativity..... The uniqueness of his intellectual vigor is clearly reflected in the fact that the rigorous principles of relativity established by him are known to have been fully comprehended by only three scientists on the earth - one of them was the inventor himself! Examples of many other scientists, scholars and otherwise talented eminent personalities may also be adduced in the present context. People who feel that their intelligence, memory or mental faculties have waned because of old age must realize that in normal case, it could happen only if they had not bothered to refine and creatively use their mind in the earlier phase of life. Abrupt thinking, intellectual inactivity and accidie is bound to gradually diminish the creative powers of brain. If nobody inhabits a posh, well-furnished bungalow; nor does anyone care to clean or maintain it, in all circumstances, it is most likely to be occupied one day by pigeons, eagles, bats, owls or other birds and animals.... It

would gradually turn into a filthy house and eventually deteriorate into debris. Similar would be the case with an unwashed cloth. Washing of a cloth is essential before its coloring. Cleaner the cloth, the better would be the effect of coloring... Regular cleaning and wiping of the floor makes it shine. Consistent brushing up of the mind through mental exercises, problem solving, training and dedicated creative practices similarly brightens the glow of intelligence. Perseverance and regularity in this endeavor ensures further development of brain with age. It is up to us whether to realize this fact and begin elevating the intellectual talents at an early age or leave it in an ignored dormant state to attain faster decay with aging. 38 Everybody Owns An Excellent Brain Human brain is regarded as the greatest boon of THY bestowed on the living world. Understanding its structure and functional role helps one realize its importance and throws light on efficient use of its potentials in overcoming one's weakness at physical and mental levels. Perfection in the use of this immense source of power and talents leads to the ultimate success and culmination of human life. The adept cognitive functions, majestic memory and ultra-fast control activities performed by this little bio-electrical 'dynamo' - the human brain - have always posed challenging queries before the scientists and thinkers of all ages. A lot has been deciphered in the present times, in terms of the anatomy of brain and the neuro-physiological functions and neurochemistry. The collective activities of the galaxy of neurons, the cerebellum, the cells on the backside of the brain and the spinal column along with the connector glia cells have been regarded as the source of neural consciousness of the active brain. However, no clues are yet in sight, which could elucidate on the motive force, source of functional update, adaptability and causal relationship of the colossal biochemical and bio-electrical activities. The deeper aspects of consciousness, mental and emotional manifestations are beyond the scope of the current approaches to brain research. The astonishing capabilities of human brain are reflected in supernatural memory, sagacity, exceptional talents, trenchant intuition etc. Discoveries and inventions that have laid the foundation of modern science also demonstrate the extraordinary creativity and eminence of human brain. Newton's decipheration and formulation of the law of gravity is among the most celebrated findings of this sort. Most discoveries which appear to have occurred just by chance have been made by the people whose mind was awoken and conditioned to receive the right kinds of signals from what they observed, dreamt, heard or perceived as a flash of thoughts.... It is said that chance only favors a prepared mind. The great scientists and thinkers dedicate their mental power in search of truth and the ultimate cause and depth of knowledge associated with specific activity of nature. Their focussed endeavor, thorough study and non-fatigable perseverance nurtures their intellectual faculty and rouses its hidden potentials. Motivation, sincerity, enthusiasm and systematic diligence towards elevation of specific talents is bound to show positive results one day. Favorable circumstances, suitable environment and adept guidance land extra support in this regard. An obvious question in this context would be – "If some people can cultivate extraordinary talents by dedicated endeavor and righteous training, then why not others?" In fact, the seeds of such potentials lie in the brain of every individual. Everyone can use the intrinsic power of his/her mind and educe potential talents to significant heights by devotion to this cause let materialized in unperturbed endeavor, coupled with keen interest and appropriate study, training and practice. Einstein's scientific talents, insight and brilliance stand in the modern history as the monument of the immense powers of human intellect. He had presented new theories of cosmic existence and analyzed many aspects of universal forces. His theories of time, space and causation gave trend-setting directions to research in Modern Physics. He had given rigorous mathematical proofs for his original hypotheses. His theories were experimentally verified and helped explain many unknown facets of the universal system and laid the foundation of future scientific developments – including the applications of 39 nuclear (atomic) energy.... It is interesting to note that this unique scientist was an eminent mathematician and philosopher too. Einstein's brain had been a center of special attraction for the physiologists and neuroscientists of early 20th century. Many of these researchers wanted to investigate whether some peculiarity of structural features has made his brain so exceptional. A team of experts had also requested his cooperation in this direction. Einstein tried to convince them that there is nothing special in his brain. He argued that, steady motivation, ever- increasing interest and total engrossment of mind in the task at hand - are the key factors behind extraordinary success in any walk of life. In his views, even a person with average level of intelligence can become exceptionally talented, brilliant researcher or erudite expert in the areas of his natural interest by inculcation

of these virtues.... Often it is found that people do not set any goals for themselves. They largely remain unaware of the marvelous benefits of mental concentration and willpower. They arbitrarily do various things with half mind and without perseverance and therefore remain deprived of significant success or intellectual accomplishments. The magic does not lie in the anatomy of brain, it is the inner strength of mind which can do wonders if aroused and channeled with sincere motivation. Despite listening to the above views expressed by the great physicist, a group of curious doctors and scientists did not leave its attempts until the last. Special efforts were made after Einstein's death to exhume his body from his private graveyard in order to bring his skull to the laboratories. Several research experiments were conducted, under iron curtain, on his brain to analyze its structure in detail. In spite of all secrecy, it became known one day that Dr. Thomas Harve had carried out substantial research on the late scientist's brain. Dr. Marian Diamond, a distinguished neurosurgeon from the University of California at Berkeley had also collaborated with Dr. Harve. However, their investigations could not reveal anything very special about the great master's brain except that the number of glia cells was higher and cortical strip was thicker than average. Moreover, these cells were found to be associated with specific biochemical functions and the doctors could not establish any link between their excess number and inherent intellectual superiority. An American magazine entitled 'Discovery' had published detailed reports of the research works on Einstein's brain. It was clear there that none of the investigations could lead to any conclusion about the real cause of his immense intelligence and insight... Thus, the people had no choice but to accept the views expressed from time to time by that Nobel Laureate himself about the secrets of human intelligence. Another notable scientist, Fisher Kostalin of Moscow had also mentioned similar thoughts about the mental potentials of mankind. Kostalin lived 70 years of creative life of which about 50 years were devoted to scientific research and development. He was an ordinary mechanic in a factory of optical instruments. With his devotion to work, mental concentration and industriousness, he was able to fabricate several machines, which were as sophisticated and important at that time, as the computers are these days. His inventions had brought out 250 instruments and appliances for public use. Kostalin opined that every human being has been gifted the same level of intelligence by nature. It is only the awareness of the latent potentials and the success of endeavors to elevate and creatively use the hidden talents, which makes all the difference. According to him, there is nothing special in the physical structure of the brain in anybody. Surgery of the skull and investigations into the anatomy and functions of the brain is not going to elucidate anything about the quality of mind... Several 40 neuroscientists too now believe that one's way of thinking, nature and intrinsic character plays crucial role in orienting his talents and setting the active level of his intellectual capabilities. Albuqark was a doorkeeper in New Mexico University when he commenced his higher education. Because of his meritorious talents, he later on became a teacher and was also selected as a member of the board of directors of that university. Although he lost his eyesight in the old age, he continued to offer his services to the university; he took up honorary work of library management at that time. He used to recognize the users of this library by their voice. Because of his immense reading and extremely sharp memory he was able to advise the readers about the essence and important portions of almost every book at the time of its issue or return. Melschiyore Sevis had strong urge for acquisition of more and more knowledge with special inclination towards the medical sciences. In spite of receiving the degree sufficient for practicing doctors, he continued to study further and further because he opined that one should have an in-depth knowledge of every aspect of Biomedicine and therapeutic methods for proper transaction of responsibilities as a doctor should.... He spent his whole life as a student; he specialized in over twenty-seven subjects with excellent performance from reputed universities of France. Although he joined as a Professor in Strasbourg University during his studies, he never ventured for treating a patient as he always felt he has yet to gain complete knowledge of the human body and mind. His unperturbed quest for knowledge and devotion to studies were remarkable indeed. Noted playwright author Mary D'Lambert Thulan of Paris was also known for his extraordinary command over theater management and organization of stage shows. He had written about 50 three-act plays in a single year. Not only that, he also directed and acted in them, and arranged a large number of shows on public demand. It was his keen interest and enthusiastic endeavor along with his talents that used to keep him energetic and efficient on multiple fronts without a break. Seedner Repidrus of Iowa, America was also known for his excellent capabilities of simultaneously performing

multiple duties of different kinds; everywhere his efficiency and perfection were comparable with those of an expert of the corresponding discipline. This multi-talented personality had performed excellently as a lawyer, judge, scientist, teacher, mayor and member-of-parliament on the intellectual and social fronts and as a horticulturist, hotel manager and manufacturer of steam boats on the business front. He also was the chairman of as many as 6 banks, 17 companies, 10 railway committees and management boards of 4 colleges. Because of his superb management of time and sense of responsibility, he never neglected either of these commitments despite his over busy schedule... Novelist Beronias D. Miyar is well known in high literary circles. He has maintained unique standard and made a record of dedicated writing for a period of over 40 years. He brought out over 400 novels, which were published by renowned publishers. Tens of billions of copies of his books were sold in his lifetime... This is still an unbroken record in the field of literary fiction..... Swami Ranganathanand of the Ramkrishna mission ma'Uha, Hyderabad, is known to have commenced his services in the ma'Uha at the age of 8 years. Because of his sincerity and quest for true knowledge since the childhood, he attained scholarly mastery in oriental and occidental philosophies and physical sciences. His exceptional eminence led him to become the president of the ma'Uha at a very young age. This swami, who had entered the ma'Uha as an illiterate, has now been conferred many honorary degrees from prestigious universities. His depth of knowledge and articulate style of expression has made him an impressive orator who is liked and honored by distinguished audience all over the world. Swamiji humbly attributes his scholarly talents and conspicuous knowledge to his devotion and unshaken endeavor to search for absolute truth. 41 The above examples highlight the fact that development and elevation of talents does not depend on specific circumstances or support of specific means. Intrinsic desire, creative orientation of mental potentials and sublimation of inner strength gradually refine one's talents and lead to remarkable accomplishments in the selected directions. Understanding the science of spirituality and practising specific s³dhan³s of personality development offer extraordinary zeal and rapid progress in this regard. Majestic Wonders Of Memory Memory plays a vital role in cognition and acquisition and generation of knowledge. Humans have sharper, larger and more resolved memory than other creatures. Great scholars, thinkers, writers, historians and orators perform excellently with the help of colossal knowledge stored in their active memory. In the ancient, pre-publication era, the brains (memory) of the teachers used to serve as books. They were honored because of their adept knowledge and sagacity. The disciples having sharp memory and keen interest in learning used to register in their brains, whatever was taught by the teachers. With the advent of printed books and availability of varieties of information on electronic memory - of computer networks, people of modern age, often tend to neglect the need of remembering or striking the memory... This attitude often leads to weakening of memory. On the other hand, as may be seen in the following examples, if activated and used continuously in a creative manner, memory would have no upper limit of evolution in human brain. As stated earlier, Lord Maculae's brain is compared with British museum's library because of his exceptional memory. It is said that knowledge or information of any desired subject used to flow instantaneously from his mind as and when required.... Be that a topic of scholarly discussion on Literature, History or Tourism etc, he was able to give excellent extempore on either for long uninterrupted period of time... He was able to recall word by word whatever he ever read or wrote. He had crammed Milton's 'Paradise Lost' by heart in just one night. Great poet Vireon was able to narrate each and every line of the verse written by him without seeing it again. His memory remained so sharp till the last moments of life. Le Beacon had similar expertise recalling each of the essays and articles ever written by him. Eminent botanist, Dr. Asagre of America remembered the names and complete classifications of over 25000 species of flora and fauna. Theodor Ruzvelt, former president of America is remembered in human history because of his extraordinary memory apart from political skills and other qualities. He used to remember people since the time of first encounter. Once he happened to accidentally see someone after 15 years in a market of Japan. He called that fellow by name and started conversing with him. It is surprising to note that he began discussion on a particular topic, which they had been debating during their last meeting! General Stumtas, former Prime Minister of South Africa had also developed extraordinarily sharp memory. He used to remember the location of every book kept in his library. Contents — page by page, word by word, of each of these books were known to him by heart. An Indian freedom fighter, Lala Hardayal Singh seemed to have multiple layers of memory... It is said that once he simultaneously read four books of

four different languages written by different authors on separate topics. The reading was carried out in a peculiar manner – some portion of one book was read for some time followed by some other in continuation..., in the respective sequences of these portions as per the corresponding book. At the end of this session, he had orally reproduced the text of each of these books correctly without opening a single page of either. Refinement of memory is in our own hands. It is wrong on our part to think that we can not remember many things or that we are tending to lose memory, or likewise.... Remembering or recalling something is a kind of mental activities which, like recognizing voice or sound, needs to be performed distinctly with clarity. The acts of scrolling, eating, conversing etc, are learnt naturally since the early childhood. Our conscious mind does not have to do anything special in performing these tasks in a natural manner. Registration of all kinds of information perceived through the sense organs also occurs automatically. But, efficient retrieval of memory is like a habit, which needs to be developed with careful practice. Special efforts are required for inculcation of such habits. Why do we forget people, places, things or any other subject matter? Why can't we remember everything that was taught or been told us orally, or which was read by us...? One of the major reasons for this not happening is that our mind is not trained to link the new instances of knowledge or information with relevant pieces of existing memory. If we develop this habit of instantaneously uniting the newly stored subject matters with the older ones in a classified manner then the old memory, thus being connected with the fresh and active one, will not be lost from the access of conscious mind. Sir William James has written that - "If whatever is intensely assimilated in our memory is linked the newly encountered pieces of knowledge or information, the latter will also get hooked in the active layer of memory and become unforgettable. "Like a fish entrapped in the fishing-hook comes up along with the hook, newly grasped matters also get recollected with earlier stored matters in nonalterable traces of memory." Thoughts pertaining to similar topics could be united together.... The names and faces of persons could be remembered along with other information dealing with their profession and/or place of inhabitation etc. If this habit of uniting classified information and instances is adopted at a young age, the effect of expansion and sharpening of memory would be more intense and rapid. Taking interest into a matter helps its deeper assimilation in the neurons. Contemplation on a subject indeed makes it unforgettable.... As an easy exercise, one might also practice to create and enhance the mental sketch of what one wants to remember and repeat this several times. The mental images or pattern so developed in the memory remain fresh in the conscious layer and are retrieved at a faster pace. It has been found that the conscious mind easily gets attracted towards active objects and colorful movements... Any thing or event that delights the sense organs or the conscious mind makes significant place in the frontal layer of our active memory. Theaters and cinemas attract the public because of the actions and movements of the actors. People are found to watch mobile video projections more attentively than the still images. If we translate our thoughts into actions then the associated topics will be remembered and retrieved more easily. Many a times it is found that what one can't memorize by repeated oral recitations gets easily stored in the memory if one writes the same matter once or twice... Reason being – when we write something it constantly remains before our mental eyes too and the action of writing creates a dynamic mental image of the corresponding matter. 43 Greater the impact of an action or event, more prominent would be its memory. Astonishing experiences, unexpected events or instances of great pleasure, pain or surprise usually become unforgettable. We do observe, read, listen or do those things with greater attention and care which are of our direct concern or interest. The associated pieces of information are therefore memorized easily. That is why it is suggested that one should try cultivating interest in the subjects which one wants to learn and remember but finds them too difficult or complicated.... Liking or interests activate mental alertness in a natural way. Mental concentration developed thereby helps memorize the associated matter with greater impact. Practice of deeper mental concentration and keen interest in whatever we want to remember is a major step towards significant improvement in memory. We must classify the subject matters according to the importance and need of recalling them in future and also develop the habit of paying due attention to corresponding instances or observations accordingly. Several types of long-term and short-term memories are manifested in humans. Some people are good at remembering poetry while others memorize the names of medicines and diseases etc; still others might remember updated price lists of varieties of things available in a general store and so on.... Medical scientists have excellent way of systematically

classifying the names of all organs, even the tiniest bone in human body...; it's a sort of routine for them to instantly recall the name, effects and mode of use of specific drugs from a large number of such information stored in their memory. Historians have to be good at remembering names of people, places, dates etc. Teachers, politicians, bankers, editors etc also have different domains of importance in the stock of their memory as per their individual professional requirements, habits and hobbies. Memory plays an important role in success of every step in the direction of professional and personal development. Each one of us should identify, which branch of knowledge, what type of things are crucial, which we need to remember most efficiently. We should develop optimistic temperament and endeavor to have mental concentration and careful observation or perception of the matters pertaining to these important issues. Continuous practice would gradually make our memory sharper in the corresponding area. Let for instance, you be a student who has to memorize a long lesson or some topics in history or let you be a speaker who has to recall several important points during a speech - without referring to any notes... In either case, the technique of linking one topic, point or incident with another in some logical sequence would help faster memorization. It would be very effective, if you fix attention on the first point, repeat it; do the same with the next point; then try recalling the first and slowly associated it with the second, thus recalling both collectively... This is how the entire sequence would be memorized. Cramming with mental alertness and understanding also lands good support in the practice of memorizing a subject matter. Suppose one wants to memorize a poem or some text. He can read one line of the same with due attention and repeat it slowly after closing the (note)book; then, correct the mistakes, if any and repeat again...; go to the next line or point in the text....; repeat the procedure for several points jointly... and so on.... Writing the crammed portion or set of lines for repetition strengthens its basis in the memory. Regular repetition of important points – of whatever has been learnt or memorized recently – for some time every day since they were first registered in the conscious mind makes them unforgettable after few days. People often think, learn and recall various subject matters at a very superficial level. This makes the memory of acquired knowledge quite blurred and unstable. Such people remember things vaguely – without any details. The habit of sound reading and thinking at deeper levels of selected topics, on the other hand, creates trenchant impressions in mind. A creative thinker or planner adeptly focuses on every point and sets a clear picture of necessary details in his mind. Stevenson, a scholar of English literature, used to note down important ideas or thoughts in a diary as and when they happened to occur in his mind. This technique is also quite supportive in assimilating thoughts in one's memory more effectively. From the practical methods discussed above, it appears that – mental alertness, keen interest, method of re-linking and unifying related issues, repeated and classified recalling of important matters, habit of maintaining a diary or practice of writing and contemplating on the selected subjects etc., are easily adaptable. These are usually effective in improving one's potential of memorizing and recalling. Memory is an excellent power of mind, which increases by creative use. Any physical power, talent or potential would wane and perish if left unused for long time.... The same is true of the other, infinitely many capabilities of mind. We must therefore engage our mind in creative and intellectual activities. Problem solving, planning, decision making, reading, writing, thinking, creative imagination, contemplating, analyzing, debating, etc, are some activities, which make best use of memory and also sharpen and improve it in more than one ways. The inductive effects of inspiring and being inspired by intellectual talents, together with the attempts of refining the existing potentials of mind are most significant on rejuvenation and invigoration of the memory.

Memory Loss - Causes & Remedies People are often found suffering from amnesia in old age. Many middle aged and young ones also complain of lack of sound memory.... This also impedes their success in many respects. Be that the act of passing an examination with good scores, carrying out profitable business transactions etc., or, even the daily chores, all suffer due to lack of good memory. Forgetfulness or loss of memory is usually considered as a disease and people go in for medicines and brain-tonics for improvement. Before going in for any treatment or therapy one should try to investigate the cause of waning memory. Also, one should understand the basic mechanism of memory storage in the brain. If one learns the structure of the machinery of a car, the basics of its movements and controls before learning to drive it, the possibilities of mistakes and consequent hurdles are eliminated to a great extent well in advance. Except in early childhood and during the last few days of life at a very old age, the natural capabilities of brain to memorize remain

almost the same. It is the change in our concentration, tendencies and habits, which makes the difference. Variation in the manner of memorization due to transformations in our mental occupations and tastes also sometimes creates a false impression or an illusion of amnesia. If one knows the basic structure and functions of the brain associated with the process of memorization and adopts a systematic methodology suitable to the natural modes of memory storage and retrieval, one may not suffer from the 'usual' complaint of vague memory or loss of memory with growing age.... As the inner tendencies, psychology and mental development of one person may be different from the others, so will be his mental potentials - including memory. It is believed - as per common observation, that memory is sharp in the childhood and begins to reduce gradually with growing age after youth.... But, the truth is quite different. In fact, in younger age, there is lesser pressure on mind; there are no responsibilities and problems to face in general; serious queries, spectrum of thoughts, types of mental tasks, interactions, emotions etc. are also limited. Thus, without making 45 an extra effort, the free and fresh mind easily stores cognitive images of every event, thought or perception in the active layers of memory in this age. As the stored amount is less, so its retrieval or recollection also takes place at a rapid pace.... However, as one grows older, the domains of his cognition, perceptions, mental activities, social and sentimental encounters, duties etc also expand significantly. His active memory is also required in the extra activities of planning, decision making and problem solving – associated with multiple facets of life.... This increases pressure or load on the storage capacity of one's memory. In such a situation, it is natural that, unless one takes extra precaution in classifying important matters and accordingly brushing up and re-linking the memory from time to time, one is bound to lack attention in some activities and thus tend to forget corresponding pieces of information.... Over-occupation with routine matters of personal, professional and social life also accounts for lack of mental peace because of which sometimes even important tasks are performed without substantial care and efficiency. This also gives an impression of being a consequence of lack of memory and resulting loss of mental power and intelligence. As stated earlier, inattentiveness, disinterest or indifference in an event or subject matter is found to be a prominent cause of its blurred memory. Such perceptions and associated information are soon washed out from the memory. On the contrary, the issues of our direct concern or interest and the perceptions and cognition occurred in a state of mental alertness create intense impressions on memory. Such assimilation do not wane out easily from the active layers of memory. Recalling the associated events or pieces of knowledge is not difficult even after a long span of time. It is a common observation that college students find it difficult to memorize the texts pertaining to their studies but, recalling complete story and narrating the details of every scene of a film or a video show is too easy for them. Filmy songs are remembered without much effort but not the poems and important points of an essay.... Grandmothers may forget the complete names and age of their grand children but, not the dates of specific festivals, religious celebrations or the rituals performed after the death of their of in-laws or husband.... Youths staying away from parents often forget to write to the formers but, are found quite prompt in corresponding with their beloved friends. A working man may forget the date of any other event but not his salary-day. Similar incidents observed in day-today life illustrate that by and large, memory depends upon one's priorities and interests. Short memory or forgetfulness is not a disease or weakness of mind. It usually occurs due to haphazard, unplanned or over-occupied routine. Maintenance of a diary of important events and habit of noting down useful information provides good support to people suffering from amnesia. Adaptation of such habits along with the earlier discussed practical methods in daily life and improvement of mental concentration is indeed more effective than using any kind of medicine or brain tonic as a remedy against amnesia. The Almighty has bestowed oblivion on the human mind as a boon like the boon of memory because it helps waning out the traces and stresses of unpleasant memories of tragedies, assaults or insults etc. The excitations of fury, wrath, agitation and revenge on the one hand, and the depressions caused by doldrums, guilt, severe loss etc, on the other, put the mind into an abnormal situation which needs to be depleted rapidly. If the memory of corresponding events or experiences remains steady, one would not be able to come out of the trauma and aggressions and suffer obnoxious consequences in the long run. Moreover, if the memory of all day-to-day affairs and a large number of unimportant activities becomes permanent, there would not be any room left for storage of new knowledge and recollection 46 of necessary information... If passengers of a train sit in it forever, how would others travel in it? Selective waning of memory thus proves to be essential in many

respects. It is only a balanced act of assimilation and elimination of information in the active layers of memory, which maintains a harmonious functioning of the mind. Although oblivion works well as a natural process, fine and rapid recollection of facts stored in the memory is what most people find difficult in general and search for the methods of improving and sharpening the memory. Lack of systematic approach and interest is found to be the major cause of the complaints of weak memory. If we are half asleep, bored or inattentive while listening to a lecture, we cannot remember any part of it. The interest and alertness of the audience is as important as the sound knowledge, eloquence and style of the speaker in making impressions on the listener's memory. Interestingly, the posture of body and stability of movements also make a difference in the effectiveness of memorization. Relaxed position on an easy chair suits many people while contemplating on a philosophical topic or planning or imagining a plot for a creative activity..... However, this posture is not useful for a student who has to prepare for the exams next day. Sitting straight in an alert state is most advisable for thorough studies. What one reads while roaming around will not absorb sufficient mental concentration and the texts so read will be difficult to be remembered.... While discussing memory and brain, it would be relevant here to note that the later receives enormous information via the bio-electrical signals sent by the sense organs every millisecond or so..... Most of these signals are impulsive and vanish with an instant reflection. There is no place or need for storing all the information received by the brain almost continuously. Only a selected and useful portion of these is registered in the memory of this physically tiny but functionally vast system of the brain. The information, which does not have any direct relation or effect on the mind, is not stored in the memory. Some of the bio-electrical signals work only to trigger specific activity in the brain and do not have any association with the memory. For instance, if a mosquito bites a leg then the brain machinery receives a message and accordingly directs the hand to hit the biter or to itch the spot where it had bitten.... There remains no other use of the associated information. Such pieces of information are lost after the completion of the corresponding activity. These exist in the instant memory like a flash of fire in a matchstick. These are removed from the memory almost instantly. Our brain is like a multi-sensor tape-recorder, which can record infinitely many audio, visual, mental and emotional perceptions and associated events in its memory. All the recorded information remains dumped there unless recalled later on. The memory cells are wonderful sensors, which are automatically activated at the time of memorizing and recalling. If the memory of an event or a memorized subject matter is not retrieved for a long time, it gradually weakens and gets faded.... Rapid and complete recollection of its details usually becomes impossible except of the important aspects that had left deeper marks on the memory at the time of their assimilation. The kind of impression an event or text creates in the memory largely depends on the state of mind at the time of its registration in the memory cells. The audio, visual, mental or emotional perceptions made in a calm, alert and focussed state create more intense impressions as compared to those occurring haphazardly or in an agitated or indifferent state of mind. The mental activation of some people is dull since birth. Unless they endeavor to excel their conscious powers, their memory too remains blurred and short-lived. The other extreme of awakened stated of mind and power of deep concentration bestows exceptionally sharp memory on some people. 47 Neuroscientists consider the memory functions as dependant on the flow of bio-electrical currents through the information transmitting channels — the nerves. Electro-physiological (bio-electrical) activities are found to play important role in stimulation of memory cells during the recording and retrieval of memory and in normal functioning of the neuronal circuits in the brain. The students of the science of electricity must have heard of reverberating circuits. They exist inside our body too. As blood circulates through the nerves, similarly, some electrical currents also flow through specific connections of the latter. The amount of activation potentials and the rate of such bio-electrical currents in the memory regions inside the brain affect the intensity and durability of the memory recorded at any instant of time. The bio-electrical flows in the brain are automatic and occur as part of the self-organizing natural process of the living system. The ionic channels of diffusion of sodium and potassium ions across the neurons give rise to substantial potential gradients which generate (bio)electrical currents in these interconnected nerve cells. The charge and rate of flow of these currents might decrease in the old age but do not vanish until death. The bio-electrical, physiological and structural analysis of the brain pertains to its activities as a physical organ in the gross body. The center of consciousness also exists here. It is considered as the junction between the body, mind and the subtler components of

mind reflected in the presence of the soul. The body perishes after death but the essence of mind — the subtle entities⁹ of mana, buddhi, citta and ahaṅkāra continue to exist along with the soul. The existence of bhūta-preta (ghosts) and other experiences of life after death are manifestations of the activities of this subtle body which can maintain its identity and memories of the past even after leaving the gross body. There is no concept of present or future for such forms of life. The memories and aspirations of the past life dominate their actions. These are therefore given the name bhūta in Sanskrit — because, bhūta means 'past' in this language. Some children are found to clearly recall the memories of their past life. Authentic information on such strange phenomena has been cited in several reports published across the globe. Some people are born with such exceptional talents and intellectual potentials, which cannot be justified by the genetics based theories of heredity or the principles of clinical ecology or environmental influence. Such incidents are reflections of the eternal existence of the subtle body and its mental assimilation in the endless journey of the soul from one birth to the other.... The assimilated virtues and weaknesses of the conscious and unconscious mind give rise to the inherited internal tendencies (samskāras) in every living being. The creative manifestation of the subtle powers of mind materializes at the gross level with the help of the bio-electrical functions of the brain. Like those of a machine or a physical organ, the components and functional units of the brain also need some energy all the time. Continuous supply of oxygen through blood circulation provides the necessary fuel to this living machinery. In the young age this 'device' (brain) is new and makes efficient distribution and consumption of energy available to it. The corresponding energy supplying subsystems are also new at that stage. Therefore, the physiological and bio-electrical functions of the brain are efficiently carried out in normal children and youths. This is why they usually possess sharper memory than the older ones. Their grasping too is quite high initially. As the body grows older all organs including the brain are subjected to rigidity and slower functioning of their components. The regular supply of sufficient oxygen to the brain also reduces with aging. This is one of the major reasons of why elderly persons, despite having sound reasoning, greater knowledge and mental potentials - on account of stored memory, experiences, intellectual training⁴⁸ and analytical exercising of the mind, have lesser memory, as compared to the children and growing youths in general. People often find it difficult to even locate or recall where they have kept the things of their daily use or remember the names of acquaintances in the old age because of weak memory. Short and irregular supply of energy weakens the biochemical processes associated with registration of new information in the memory cells. The memories of distant past (young age) therefore surface up to the active layer with little effort and thus the older people recall them more easily.⁴⁹ As mentioned earlier, one's memory bears upon the strength of connections and order of smooth communication between the huge number of neurons constituting the functional units of his brain. The high co-operativity and activity of the interconnected neurons account for sharp memory while the impedance of inter-neuron transmissions wanes the active memory. The yoga exercises of dhyaṅa - dhāraṅa help concentrate bioelectrical energy available to the brain and thereby generate a controlled excitation, which accelerates the inter-neuronal activities. Adept practice of these elementary sādhanās of spiritual refinement on regular basis results in sharpening and empowering the memory along with intensifying the mental concentration. The gigantic ensemble of billions of neurons - including the tiny nerve cells of the memory layers in the brain works like a disciplined army or co-operative groups of dedicated engineers and efficient managers. The tiny structure – of spherical diameter smaller than thousandth part of an inch and weight lesser than a billion – billionth fraction of an ounce, and the immense capabilities of the neurons seem to set living illustration of the following Sanskrit quote – “Añoraṅyān Mahato Mahāyān” Meaning: (referring to the Supreme divine power) smaller than the smallest and greater than the greatest..... Each soldier in an army has to have his individual valor and strength. However, the true strength of the army relies on the mutual cooperation and feeling of togetherness among its members. The same is true of the 'army' of the nerve cells. Although, each neuron is equipped with highly evolved biochemical structure and bio-electricity generating mechanism and each has specific functions to perform, it has to always share 'joint responsibilities' with the other neurons. Collective activities of these in the neuronal network – where the neurons are mutually connected by the nerve fibers – govern the large number of physiological, regulatory and mental functions of the brain. The nerve filaments are covered by an insulating substance and carry infinitely many (bio)electrical impulses from one neuron to the other in a matter of few milliseconds. The

information sent by the sensors of the sense organs is transmitted to the central processing unit (CPU) of the brain for appropriate action. The decision making in a court of law is based on the legal interpretations and analysis of the reports and arguments presented by the lawyers and witnesses.... The instantaneous decision making and triggering of corresponding reactions by the CPU of brain also works according to optimal bio-electrical processing with respect to the signals received from the subsystems of the interconnected neurons each of which functions as per its natural role in the neuronal network. Different kinds of perceptions and corresponding reactions of the brain account for reconditioning of the functional states of the individual components. Mental and emotional perceptions and experiences account for such effects in a more intensive manner. Because of this dynamic and adaptive topology and activation of the neuronal network, the functional utilities and information processing capabilities of specific groups of the nerve cells (and therefore the mental potentials too) vary from person to person. This explains why different people often react differently in the same situation or draw different interpretation or inferences from same piece of information..... The assimilated effects of the past lives too, because of their presence in the subconscious and unconscious layers of mind, manifest their influence on functions of neuronal subsystems and hence on one's psychology, character and intellect too. 50 The grouping of different neurons in the neuronal network is stochastic. The locally interconnected neurons in a specific portion of the network perform specific functions... Sometimes, such a team involves tens of thousands of these tiny nerve cells. Although, all the millions billion neurons do not form a common team, different groups of these processors may be engaged in disjoint or interrelated activities simultaneously. Imaging and Electro Encephalographic (EEG) techniques show the tides of bio-electrical fluctuations and activities in the brain- substance inside the skull. The computational model of the neural network and associated designing of multiprocessor computer architect has become an active area of research since the advent of parallel processing. However, even the most advanced designs have not been able to link more than five processors directly with a single one.... It is simply impossible to compare the capabilities of these artificial neural networks with the almost omnipotent neuronal network in human brain which is equipped with excellent biochemical capabilities of connecting a single processor (neuron) with tens of thousands of neighboring neurons. Moreover, these connections and related activities in the brain are dynamic, associative and self-organizing with immense capabilities of adaptive learning and memorizing. The collective functions of trillions of neurons simulate, though at an extremely fast pace and large scale, the team works of termites and honeybees. Most of the infinitely many potentials of human brain remain dormant unless one endeavors to activate associated processing in the neuronal network and creatively use the mental and physical power so generated. As mentioned earlier, at the most 7% of the true capabilities of the brain are used by humans - including the distinguished intellectuals and talented personalities. High level spiritual s³dhan³s focus on rousing the unused 93% of the 'latent' power of the brain. Success in such endeavors can elevate one's physical, mental, intellectual and spiritual potentials up to supernatural levels. Activation of exceptionally sharp and sound memory is a natural consequence of such effects. In view of the relationship of memory with the structure and functions of the brain, we should understand memory and oblivion as awakening and waning of specific activities in the neuronal system. As our life style, habits and psychology have significant effects on the conditioning of these functional units of the brain, we may find a remedy for oblivion and key to improving our memory in the methods of refining our attitude and controlling our day-to-day activities. Apart from following the practical tips stated earlier, adopting some spiritual disciplines and practising simple s³dhan³s of dhy³na- dh³rañ³ would offer great help in elevating our mental concentration and gradually lead to the realization of sharp memory and brilliance.....

Mode Of Living & Maintenance Of Memory

Importance of good memory in human life is well known. Sharp memory is regarded as a sign of brilliance and intellectual talents, which are considered as the key factors of progressive life. An illuminated mind inspires and guides the path of development and success. Complaints of lack of memory or amnesia are heard frequently now-a-days. Apart from its obvious negative effects on the materialist and worldly activities, weak or short memory also suppresses the possibilities of spiritual exaltation. Because, lack of memory often causes mental illusions which lead to misinterpretations and imperfection in worldly as well as spiritual efforts. 51 Many a times, we see that even qualified professionals are unable to do well because of short or dim memory. Howsoever learned a teacher or lawyer may be, he will not be able to make use of

his knowledge and experience in the classroom or the court of law if he does not have good memory. How would a professor be impressive and teach thoroughly if he forgets the lessons he had prepared for a particular lecture scheduled for the given day...? No lawyer could present his case fluently and argue forcefully if he has to refer to the books of law or his notes every now and then during a hearing. Weak memory will seriously harm a businessman who has to remember the names, nature and hobbies of hundreds of old and new customers along with taking record of the current prices of a large number of commodities and trends of the market with respect of each of them.... A leader has to be an impressive orator if he wants to motivate the masses. How could he do so without remembering his well-prepared speeches or recalling the facts and figures on current topics in an extempore? He also has to maintain good relations with his party workers, prominent personalities and develop more and more public contacts. He would not be successful in this if he cannot remember the names and backgrounds of people because of his amnesia or short memory. Administrators, Doctors, Company Managers etc would also suffer in one way or the other in their respective professions if they do not have fairly sharp memory. Adept learning and refinement of talents also requires sound and trenchant memory. For example, many students fail in exams due to lack of memory; in spite of hard work and understanding of the subjects, some students do not write well in the papers because they forget almost everything what they had studied before... Sometimes nervousness or stress leads to sudden loss of memory... This gets recovered once the cause of tension is removed. Long-term diseases or accidents - especially those causing head injury etc, often result in the diminishing or total loss of memory which may not be regained by existing methods of treatment. It should be noted that, unrestrained sensual pleasure, concupiscence, erotic thinking, excessive consumption of artificial food, unnatural or stressful mode of living etc, induce negative effects on the brain due to loss of vital energy and over excitation of the mind and the sensory organs and therefore weaken the memory. Erogenous thoughts, furore, jealousy and similar kinds of sentimental malice and the mental suppressions and disturbances caused by anxiety, despair, worries, illusions etc are all natural enemies of memory. Their effects could be more prominent in waning the memory than those created by an attitude of indifference or lack of interest and mental concentration or haphazard thinking etc. People suffering from amnesia or dim memory should review their mode of living, habits and psychological characteristics with respect to the improprieties and imbalances of the above kinds before consulting a doctor. First of all they should get rid of the feeling that they have weak memory. Optimistic endeavor helps deeper analysis of the problem and search for a viable solution. If one is determined to elevate his mental powers, he can eliminate the causes of deficiencies by himself. If not, he can take help from an experienced counselor. If the memory has weakened because of some head injury, mental shock or physiological disorder, specialist's help becomes inevitable. But, in case of minor problems, nutritious and balanced diet along with psychological fitness often lands good support in improving the memory. Natural products, rich in vitamin B, phosphorous, calcium and iron should be consumed every day in such a manner that the meals remain light and balanced as per one's health and daily routine. Dry fruits like chestnuts, almonds, dry raisins etc; seasonal fruits like dates, figs, coconuts, citron, papaya, orange, apple, grapes, strawberry, pears, cucumber, muskmelon etc along with carrots, beet-root, tomatoes, turnip, 52 cabbage, radish and other vegetables — especially green leafy vegetables, could be very useful. Chapaties of coarse wheat flour, porridge accompanied by pulses like lentil and green peas should also be added in the meals. It is not necessary to have all the above listed eatables in every meal; whatever is suitable to one's digestive system and is easily available could be used provided the meal is balanced and light. Regularity in timings of meals and habit of slow eating by proper chewing helps good digestion and normalization of metabolism and thus accounts for increase in the amount of pure blood, which is the major source of energy for the brain. Milk is often recommended as a natural tonic for brain. However, only cow-milk has this property. The milk of a goat or buffalo is not suitable. The milk of goat contains lesser amounts of vital elements and is often prescribed for children and for adults who have weak digestive system. The milk of buffalo is heavy and rich in fats. It increases fat but does not strengthen the brain components. Wrestlers and body builders may be advised to consume it but not those interested in empowering the brain. Small amounts of fresh tepid milk of cow consumed early morning every day - is found to be most suitable as a brain-tonic. Self-restrain in sensual pleasure and avoidance of mental excitation is essential for maintaining smooth functioning of the body and mind. If one improves the eating habits

and general mode of living but neglects the protection of chastity, he would not benefit anything in terms of mental refinement. The vital elements stored for strengthening the brain would be lost rapidly in the activities of sexual indulgence. Observance of chastity is considered to be the principal factor in preserving vital energy and the subtler constituents of *prāṇa* and is therefore important in any attempt aimed at strengthening the brain. Ascetic control over the sense organs and the discipline of chastity is essential for conservation and refinement of memory. Jealous, animosity and anger disrupt the harmony of physical and mental functions. The gross body loses its charm and becomes bony due to persistence of such malices. The brain-elements are more sensitive and delicate. These get burnt in the heat of the mental excitations caused by such negative feelings. Over-ambitiousness and excess of attachment and worries also weakens the mental health faster than the deterioration at physical levels. Thinking of any improvement in mental or intellectual potentials without depleting wickedness and weaknesses of mind is nothing better than the act of day-dreaming. Aspirants of healthy mind and sharp memory should protect themselves from mental malice, excitements, depressions and anxiety..... This can be achieved by firm determination and will power and gradually accelerating endeavors in the righteous direction. 53 The bio-electrical flows across the memory cells are accelerated in a cheerful state of mind. Cultivation of an attitude of satisfaction and optimistic temperament keeps the mind calm in most situations. Tolerance and patience could be easily observed along with such mentality. Inculcation of cheerfulness in response to small — even negligible cause of joy and humor gradually conditions the mind so that it always remains happy.... Even simple things like neat and tidy body and clothing and humility in day-to-day interactions can inspire pleasure in our mind and soothe the people around. These are elementary but important disciplines which make further training of the body and mind easier in several respects. *Swādhyāya* and *Satsanga* provide excellent support in self-restrain and inspire creative activities along with above qualities. Adoption of simplicity and austerity in life-style, external and internal purity, honesty and modesty and cultivation of creative hobbies are infallible means of strengthening mental powers including memory. Autosuggestion excels the interest of mind towards the targeted activities which it earlier used to find useless or indifferent. Interest and motivation in a task do induce/educate mental concentration too. Focussed attempts and stability of mind in any activity or observation stimulate the flow of bio-electrical currents across the nerve cells which accounts for gradual sharpening of the memory. Oblivious Minds Of Intellectuals! Having weak memory is not an uncommon observation among ordinary people. However, it sounds ironical when very intelligent, exceptionally bright persons are found to be utterly forgetful! How can highly evolved intellect and oblivion coexist? What could be the reason behind this controversy? The answer becomes clear if we look at the examples of some renowned scientists, scholars and eminent personalities who had also earned popularity because of their extraordinary forgetful nature. It is said about Panchanana Mishra, eminent scholar and expert of Sanskrit grammar that, he had even forgotten about his marriage and his wife. He was so engrossed in writing his noted treatise on grammar that he used to notice or recall nothing except his work round-the-clock. If the food was kept in front of him he used to eat it almost mechanically whenever his starving stomach would signal the brain to do so.... or would not eat anything at all..... Realizing the necessity of mental concentration in such an important project, his wife took care of not disturbing him. Their routine continued for several years.... Once, when the voluminous book was about to complete, the lady saw that her husband has not touched the food for the whole day, she lit the lamp and asked him to have something. Panchanan raised his head and asked 'who she was'? He was surprised to hear her reply and questioned -"when did we get married?" She calmly replied — "four years ago...". It took Pt. Mishra few minutes to recall the truth in her statement. He realized that since the first day of their marriage, his wife has been at his service without even asking for a negligible fraction of his time. He recognized her support as the greatest contribution to the work and therefore titled the treatise after her name — *Bhāmatī*. A somewhat similar incident is popular about the celebrity Hindi poet Suryakant Tripathi 'Nirala'. Once he was going to visit a contemporary poetess Mahadevi Verma after collecting the payments of royalty from the Leader Press. He saw an old woman on the road who was shivering in cold and looking at him suppliantly in hope of mercy..... The generous poet gave her all the money he had just received and also donated his coat. He then met the poetess as per schedule.... After a span of four 54 days he went to Mahadevi and inquired whether he had left the coat in her house by mistake... He had totally forgotten

about the incident and could recall it only when Mahadevi reminded. Erudite philosopher Aldus Huxley often used to forget where and what for he was going out after walking/travelling sizable distance away from home. Once he was invited to attend a function out station. His train was delayed so much that the organizers could not wait to receive him at the destination. Well, after reaching that station the great philosopher hired a horse cart...; few minutes later the groom inquired where he wanted to go... Mr. Huxley was taken by a surprise! He could not recall where he was to go and why had he come to that city? Finally he went back to the railway station and returned home by the earliest available train. Dwite Maro, a well-known American scholar, was once travelling in a train. The train had traversed several miles when the controller entered his compartment and asked for the tickets. Prof. Maro searched in his pockets, purse and baggage but could not trace the tickets.... It was nothing new! As usual, he had just forgotten the tickets somewhere. Fortunately the TC recognized him and replied — “I know you would never travel without purchasing a ticket. In case, you happen to find it please show it to me; please don’t worry otherwise....”. The professor replied — “perhaps I may not find it so, please issue me another ticket. Because, after getting down at the destination, I ought to produce it before the controller there. It is good that you know me but he need not...”. He finally bought a new ticket. Its amazing that such incidents were quite common in his life. Once he had left some valuables and important papers in a train.... and forgotten about it. Since then, a servant used to accompany him long distance journeys to look after his tickets and luggage. Even Einstein – the brightest scientist of this century, could not avoid oblivion. One of the many interesting evidences of his absent mindedness took place when he returned home after a long walk. He was very tired and thought of going straight to bed....; he was also busy thinking on some problem at that time.... Such was the his involvement in thinking that he kept the hand stick on the bed and himself stood in a corner of the bedroom... The blunder was noticed only after his wife entered there. The above examples illustrate the reflection of total engrossment of the mind in focussed thinking and deep contemplation. All the other activities and memories of the conscious mind are suppressed by the predominance of the unidirectional unperturbed flow of thoughts. Other extremes of the amazing characteristics of human mind are seen when otherwise immature, underdeveloped or average skilled brains manifest extraordinary memory and intellectual potentials. Jamile Mogal of Scotland had started cramming the holy Qur³na when he was just five years old. Within a span of three years, he learnt the entire scripture by-heart. Otherwise, the boy’s intelligence and memory is quite average. Similarly, the 26 years old telephone operator, Goyanling of China has so far memorized over 15000 telephone numbers with identity of the customers and is nearing his planned target of 18000. Goyanling has not shown any other specialty of mental potential or memory. He is like any other young fellow with an average intellectual level. These two examples again show that even if an ordinary and intellectually average level person motivates his efforts towards a particular goal and is determined to reach the target, his steady mental concentration and strong willpower would accelerate specific activities in his brain and give rise to magical manifestations of mental potentials of particular types. 55 Each one of us can achieve such miraculous targets by internal desire, dedicated attempts, perseverance and focussing of mind. Educing exceptional memory in otherwise ordinary brains or discovering the mysteries of the world would also become possible if the mind remains unperturbed in such endeavors. Rousing Mental Potentials By Simple Training

The functional structure of the brain could be categorized in three parts — primal (³di) brain, middle (madhya) brain and present (var³tm³na) brain. The first one may be regarded as the root, the middle one as stem and the third as the branches along with leafs and flowers of the ‘tree’ of brain functions. The primal brain is endowed with all the knowledge, tendencies and impressions assimilated since the origin of the j^ov³tm³10 till its birth in the present life. The term ‘middle brain’ refers to the source of manifestation of latent or supernormal powers. The ‘present brain’, as the name suggests, is developed according to the memories, knowledge and conditioning resulted from — the bio-electrical processes and the perceptions made through exposure to the world, experiences, education, social encounters etc since the embryonic state till the present time. The three brains are functionally organized one under the other like the layered skin of an onion. The primal brain lies in the innermost core. It is the subtlest but the most prominent of all. It is the original source of consciousness for the development and activation of the other two. The blueprint of the inner character of an individual is stored here. In essence, the seed of one’s personality sprouts from this center. The number of neurons in a human brain is almost double the human population existing on the earth

today. If one second is spent in counting one neuron, it will take 300 centuries to sort all of them in a single brain! These tiny nerve cells have negligible size and weight but each of them could be compared with a complete human being in terms of work potential and highly evolved structure. If the entire human population could be disciplined and motivated to follow righteous path, the world would soon become more beautiful and happier than what could be imagined of the heavens. If all the neurons could be conditioned to function optimally making best use of their latent collective powers, the human brain would certainly manifest divine potentials and supernatural talents.... Because of individual egos and diversities of characters, it may not be possible to control the over 6000 millions of the people inhabiting the earth. However, the population of 10,000 million neurons in one's own brain could be regulated and gradually conditioned for sublime transformations by a person who has a balanced mind and pure and eminent character and who endeavors to excel his mental potentials with strong will and perseverance. Such endeavors are as difficult, important and glorifying as those of becoming an unchallenged emperor of the entire globe. Until the last century, extraordinary intelligence and talents were generally attributed to one's good fortune or divine blessings... Scientific investigations into brain-functions and human psychology have now revealed that such 'fortunes' and acumen could be awakened to a great extent by systematic training and endeavors because the brain of every human is endowed with enormous potentials. Moreover, the advancement of neuroscience and studies on the subtler aspects of human mind has also indicated that the mythological descriptions like — "Hanuman jumping over the ocean...", "Ravana having ten heads...", or, "Sahastrarajuna having thousand mighty arms..." etc, may be rather 56 feasible realizations of human life than being allegorical representations.... Because, the human brain does possess the power, though in a dormant state, which upon culmination can make it Omnipotent. Systematic and intensive training enables even animals do what could normally be regarded as impossible for them... One of the research laboratories in Japan has trained monkeys in pattern recognition and arranging the households and office material in proper order. What more! They are even trained in identifying the liars. Experiments are on to see whether the effects of this learning could be transmitted, likewise other natural habits, into the offspring of these trained monkeys... Professor Montagne of France opines that - as the nature of dolphins and chimpanzees appears to be closer to that of the primitive man on the evolutionary scale, these could be trained better than other animals to do many things which only humans can do in normal course. They cannot be given the voice or the communication skills of humans; nonetheless, proper training enables them to communicate in a language of gesture - including that developed for the deaf and dumb people. Lusy, Lana, Vashu etc, are among the many Chimpanzees in the animal training centers of USA who can understand the meaning of more than 200 English words. Now, they follow the instructions and are further learning with the help of these words. Training the mind of an individual becomes difficult and attempts of rousing its hidden potentials may be impossible, if he is trapped under the vicious cycle of the malice of ego, arrogance and unchecked ambitions with or without the harmful tendencies of lethargy, despair, aggressive impatience, etc or alcoholic, erogenous and similar addictions..... The mingling of these thraldoms could be broken only if one has an internal desire and strong willpower to do so. Auto-suggestion, *sats\{a}ga sw³dhy³ya* and creativity coupled with healthy recreation offer best remedies in depleting the negative tendencies of mind and associated addictions. One should get rid of the inferiority complexes or the feelings of the weaknesses of his mind. If even animals could be made change their natural habits and machines like the computers could be taught then why not a human - the most evolved organism, endowed with so many boons of the mother nature....? Austerity of living habits, optimistic thinking, stability and purity of mind and emotions and creative industriousness are the preliminary requirements if one wants to progress further in refining his talents. Intensive training and assiduity with unsheltered interest and concentration of mind in a selected area do set the clock in motion and gradually elevated associated intellectual potentials. Sharp memory supports learning and intellectual development of mind. It has therefore been given primary importance in most of the training methods, including those of the spiritual *s³dhan³s*. It is highlighted here that, trenchancy of memory is not always a divine boon or inherited fortune, rather, it could be aroused in every one who adopts a serene, disciplined and balanced mode of life. The practices of *pr³ñ³y³ma* and *dhy³na-dh³rañ³* are integral parts of the initial phase of spiritual *s³dhan³s*. *Pr³ñ³y³ma* harmonizes the breathing pattern and triggers maximum supply of oxygen and vital energy to the brain. The scientists of Illinois university and the University of

Oregon had conducted series of experiments on breathing habits. They had observed that the children who were not used to deep breathing had lesser memory and intelligence than those in the same age group who used to inhale more oxygen at a regular pace. The effect was more prominent in the elders. As the rigidity of nerve-walls increases with age, the free circulation of blood and its supply to the brain reduces significantly. More regular supply of oxygen in larger amounts is therefore required to maintain normal functioning of the brain. The practice of $pr^3\tilde{n}^3y^3ma$ maintains this supply harmoniously and thus prevents a major cause of lack of memory. Special kinds of $pr^3\tilde{n}^3y^3mas$ also help activate long-term memory and empower the mental activities. Mental stress or tension severally harms mental creativity. According to a neurologist, Dr. David Heraldfick, forcing the mind to focus on something might increase mental tension. Mental concentration should therefore be intensified in a naturally soothing manner at a steady pace. The practices of $dhy^3na - dh^3ra\tilde{n}^3$ create compatible effects of this sort. An aspirant may select any one of the prescribed s^3dhan^3s which he finds easiest to perform and which also suits his nature. During these practices, the bio-electrical impulses inside the brain are found to be occurring in a harmonized pattern. By little practice every day and with sincerity, one begins to correctly perform these s^3dhan^3s after some days.... Gradually intensifying the level and duration of dhy^3na helps stabilize the mind in a calm state, enhance mental concentration and ameliorate all brain potentials including memory and intelligence. Mental Wizards Or Magical Brains! All elite, intellectuals, corporators and other officials of New York City had gathered in a packed hall. A simple looking man, the main attraction of the programme, appeared on the stage and was instantly shot by a heavy question — “What is the value of 6060 and what will be the digit at the 39th position of the integer value obtained at the 47th step of this multiplication?”. The person on stage sat calmly on a chair and started solving the problem mentally without any calculating device, pen, pencil, paper, chalk or blackboard..... He seemed to have been in a state of deep meditation somewhat like a yogi. The yogis of savikalpa sam^3dhi have the unique potential to extract the vital power of cetana from every corner of the body and focus it at the center of the brain and dissolve their consciousness in the ocean of thoughts. The $cetan^3$ of a yogi in this state unifies with the cosmic consciousness like water mixed in milk loses its separate identity and becomes milk only. The ancient Indian science of such spiritual attainments deals with the subtle aspects of $ja\tilde{A}a$ and cetana and aims at absolute welfare of all living beings. It unravels the mysteries of nature and elucidates the secrets of the origin, existence and ultimate end of life, universe and every form of existence.... Those intellectuals, who consider material based scientific approach as the ultimate, do so because they have not experienced the immense expansion of the science of consciousness. The latter, which works at the level of deep emotions, internal desires and inner sentiments and which focuses at what makes the realization, use, transformation and transaction of the $ja\tilde{A}a$ (material) possible, is often termed by such ‘rational’ thinkers as the science of superstitions. The demonstrations of the power of yoga, like the one described here, often startle such intellectuals and pseudo scientists. The ‘yogi’ on the stage was an Indian who was invited in America because of his unparalleled hold on Mathematics, his superb intelligence, his ‘magical’ mind..... He was an inhabitant of Dhaka (in India, those days), named, Suresh Chandra Dutta. He did solve the huge multiple and also stated the digit at the 39th position of the 47th line. 58 Dutta took about 45 minutes to do all this jugglary in his mind. The person who had solved this problem in the least ever (record) time until then - was a Ph.D. holding professor of New York University. This professor had solved this sum using paper and pencil; he used to solve the problem in parts for two hours every day and had taken eight days to get the final answer. Well, his solution was compared with that answered by Dutt. Ouch! There was a difference! Whose answer was wrong? Dutta’s, or Professor’s? Several mathematicians verified those solutions separately. All of them had found that Dutta’s answer was correct while that of the professor carried mistakes at 19 places. Suresh Chandra Dutta had also solved many other hard problems of mathematics (arithmetic) with same efficiency. Queries about the days corresponding to random dates of future, present and past centuries were responded correctly by him in one second or so. He committed no mistakes and answered varieties of difficult questions with equal ease. His supernormal brain stunned American scientists and intellectuals. Next day, the leading news papers admired Dutta as — ‘Rival of Machine’, ‘Mental Wizard’, ‘Human Ready Reckoned’, ‘Lightening Calculator’, ...etc. November 1926 issue of Indian Review contained detailed articles on the ‘magical talents’ of Suresh Chandra with discussions on — how a normal human being could possess such

supernormal intelligence....? The born-talents of a person are often attributed by the bio-scientists to the hereditary effects driven by the genes. The development of an embryo (and of the complete body too) begins with the 24 chromosomes of the father and 24 chromosomes of the mother. All the characteristics of a person are affirmed to be contained in the genes segmented on the chromosomes. What proportion of the genotypes of the parents could be transmitted to the offspring on an average - was first established by an Austrian scientist named, Gregory John Mendel. After eight years of successive experiments on green peas, he was able to formulate, some time in the 19th century, what is now popularly known as the Mendel's law. In first set of experiments he observed the crops of green peas grown from good (heavy and large) and bad (light and small) seeds separately. The quality of peas produced by matched with that of the seeds. In the experiments with hybrid crop — produced from a mixture of both good and bad seeds, it was found that about three-fourth of the new peas were good and the remaining one-fourth were bad in quality. When the bad ones of this hybrid crop were sown then all the offspring were found to be bad; however, those of the new (hybrid) good lot were again found to be of good and bad quality in proportion of three to one. Several sets of experiments on different species of plants and animals showed similar results and indicated that dominant qualities of the parental genes are carried over in the successive generations. Sometimes these properties or phenotypes may not be expressed in the immediate next generation, but, might do so after several generations..... Other scientists, including Darwin, Hugo, D'Brize, Schermek, Karence, etc, had confirmed the above possibilities and carried out detailed studies on the uncertain and unpredictable phenomena of recombination and mutation (of genes) which cause random variations in the genotypes during the process of transmission from one generation to the next. So far the studies in genetics have confirmed the hereditary effects in relation to the phenotypes mainly concerning bodily functions and properties. For instance, if both the parents have brown eyes, some of their descendents in some future generations are sure to be born with brown eyes. Many diseases like diabetes are also known to be generally carried over to successive generations with some positive probability. However, nothing has yet been concluded about the hereditary influences on intellectual and spiritual qualities. The author of 'Social Life in Animal World' and 59 many other life scientists of high caliber accept that, "how and from where the sentiments of love emanate?" — is yet unresolved. Dr. Cruz argues that modern science has not been able to know much about the system of mind. If we assume that the genes also drive the extraordinary potentials of the brain, the powers of extrasensory perception and supernormal talents would then be regarded as the manifestations of a paramount gene-regulated function of the brain. The exceptionally bright mental processing and memory-retrieval at a rate faster than the bio-electrical flows in brain, etc would also be then affirmed as genotype expressions only. In that case, one would infer that the inherent supernatural properties have originated from an eternal 'genetic' element or an omnipotent divine ancestor. Howbeit, this would contradict the theories of evolution and material based sciences, which regard such arguments as baseless offshoots of myth and illusion. The theory of genetics and the other principles of modern sciences established so far cannot explain the evolution of brain. For instance, several years ago it was argued on the basis of some laws of the physics of brain, that the intellect of a living being should have evolved in proportion to the ratios of the weights of their brain and body. Dr. Devoir's results had annulled such conclusions by simple examples. The above ratio in rabbits, foxes, dogs and horses is measured on an average as 1:140, 1:156, 1:350 and 1:800 respectively. Thus, according to the said principle, rabbit should be most intelligent among the four; but, on the contrary, horse is known to be so. Some species of horse are found to demonstrate significant natural intelligence as compared to some trained and more evolved animals. The above principle does not apply to the human population either. The respective ratios of the size and weight of the brain to that of the body were found to be above average in a handful of scholars like Evan, Turneva, Krampbell, Oliver and Viron. Whereas these are found to be average or much lesser in majority of sagacious, bright personalities; Albert Einstein's name too falls in the latter category. Studies on enormous varieties of creatures have made the scientific theory on brain more complicated and inconclusive. The clear and more definite approach has been to consider the brain substance as different from that of the body because the physics and chemistry of the former are yet to be deciphered completely. The real potentials of human brain are much more than what have been witnessed in child prodigies and super intelligentsia. As we have also described earlier, ample examples of the unlimited power of human brain are

found in human history. Moparse's highly recognized book 'Human Personality' mentions of many such evidences. When a seven years old boy, Benjamin was walking besides his father in Edinburgh, he asked about the date and time of his birth. Within two seconds after his father's reply, he stated a huge number saying — "so I am these many seconds old!". His father got a pleasant surprise. He slowly counted and came out with a figure that was 172800 seconds more than Benjamin's estimate. The little boy quickly cleared his father's doubt, pointing out that the latter had not subtracted two days of the two leap years — 1820 and 1824 that had occurred during the said period. The father was amazed and was feeling proud when he verified that his son's instant mental calculations were hundred percent correct. Graham Bell's invention of telecommunication device stands among the greatest boons of science bestowed on the modern human society. He had devised it at the young age of 20 and got the patent of telephone when he was 29 years old. Wilber and Orville Wright — popularly known as Wright 60 brothers, had also designed and made several flights on the first airplane of the world during the same age group of 20 to 30 years. When they made the record flight on the airplane equipped with a power engine and amazed the world, Orville was only 32 and Wilber was 36 years old. Blaise Pascal's name is also honored in the glorious list of such inventors. It was sometime in 1642 when this 19 years old French mathematician used to work as an accountant when he got the idea of devising a machine for assistance in arithmetical operations. He could materialize this idea within few months because of his exceptional insight in Geometry and gave the world its first calculator..... Moparse has raised many issues in her book and asked — "when will humans discover and analyze the truth behind their own existence as intelligent beings?". The author further states that - unless human psychology is studied up to the deepest depth of human mind, the findings of modern sciences would remain incomplete and cannot accomplish what they are expected to do in terms of true progress and welfare. The occurrences of supernatural intelligence stand as living evidences against the possibility of heredity driven intelligence and mental powers. The presence of exceptional talents was noticed in Shri Suresh Chandra Dutta when he was 8 years old. When an inspector visited his school and asked some oral questions the boy gave correct answers without any pause. The visitor was impressed and out of curiosity, he kept asking more and more difficult problems in Mathematics and the little student continued replying at the same pace.... Multiplying hundred digit numbers or finding square roots or cube roots of equally large quantities was a job of one second for Suresh Chandra at later age (in senior school).... Nobody in the availed history of Dutta family was known to have had super intelligence like Shri Suresh Chandra. A supporter of heredity based transmission of intelligence might assume that the extraordinary potentials were carried over from the ancient or the first generation ancestors – like the rishis.... Even then, unless one considers that the latter had awakened such supernormal powers by intense spiritual endeavors, the logical conclusion would be that – such qualities, reflecting evolutionary culmination of the potentials of living beings, had emerged from a self existing, eternal source..... During his visit to the USA, Suresh Chandra Dutta's intuitive mathematical skills were also demonstrated at the Columbia University and many other institutions of higher learning. His specialty of solving mathematical problems in state of deep meditation gave new ideas to the thinking and imaginations of the American people. Unfortunately, nothing more than exalting surprise and curiosity could emerge from these programs in the absence of serious discussions on the intricacies of meditation and relevant knowledge of the ancient Indian science of yoga along with his 'live demonstrations' of the inner powers of human mind. Had there been somebody who could explain the basics of the Indian philosophy of yoga and the science of spirituality during such demonstrative programs, the possibility of a new dimension of integrated scientific research would have arisen right at that time.... Which might have changed the shape of current research on human brain and psychology. Examples of the mental wizards — like Shri Dutta, not only in the field of Arithmetic, but, in almost all kinds of talents and intellectual deliberations, motivate the modern scientists rethink on the source of the magical potentials of human brain. Immediate challenge before them is to investigate — what kind of hereditary principles, if any, what type of scientific theories, could elucidate deeper and more definite knowledge on human mind?

Measures Of Intelligence 61 There is a well-defined age limit for the growth and maturity of gross body. In normal case, one becomes an adult in biological sense around the age of twenty years. The bodies of men and women in the age group of 25 to 30 years reach completely grown-up state. The age around mid-forties is considered as the middle age at which the trend of biological growth and strengthening begins to reverse.... This is a crude but universally

accepted division of the body-age. However, no such general measure is available for mental age. Many adults behave in naive manner in many respects even after crossing the middle age. Their sense of responsibility, level of thoughts or wisdom does not show any sign of maturity. Many others, on the contrary, are matured enough to adeptly tackle complicated problems at an early age. Talents, intelligence, orgulous capabilities of management, decision making, foresightedness, etc do not seem to have any correlation with age. The measures obtained by the psychologists for the purpose of calibration of mental age are neither objective, nor definitive or universally applicable. Intelligence Quotient (IQ) is a commonly used measure of one's intelligence. This is computed as the ratio of the mental age and biological age multiplied by 100. The mental age is usually computed by subjective methods - for instance, if a child of 10 years behaves like most of the normal children of that age, his mental age too will be set as 10 years. Some kinds of memory tests and examination of problem solving capabilities, general knowledge, aptitude and behavioral efficiencies is also performed to assign a quantitative measure to one's mental age. A child who shows better talents, reasoning and maturity as compared to what is expected of his age is attributed higher mental age; if the biological age of such a child is 10 years and his mental age is 15 years, his IQ will be set equal to 150. Statistical analysis of the surveys conducted by several psychologists shows that, in general, only 2% of the population has IQ of this high level. Those with IQ greater than 200 are considered as exceptionally intelligent. IQ values lesser than 100 indicate successively weaker levels of intelligence.... IQ level between 100 and 150 is often graded between average and fairly good. Although the IQ is a popular measure of testing one's normal mental potentials, it is certainly not absolute or error-free. There are many counter examples where one was inferred as below average by above techniques while his or her intellectual contributions to the world were distinctly remarkable. Super genius Albert Einstein could never score a good IQ in his student life. He was even debarred from a school once because he was not able to answer any questions from the lessons taught in the class. The reason was — he used to go so deep into the subject that, his mind would become practically absent from the class.... Neither the teacher nor the psychological tests of IQ measurements were able to take note of this fact. The whole world witnessed his genius because of his unparalleled contributions including the general and special theories of relativity, which laid the foundations of Modern Physics. Similar to the contradictions observed on IQ and true performance of one's creative intelligence, the hypothesis that — “intelligence is a natural gift inherited since birth”, has also faced controversies and is not accepted in view of the evidences against it. Arthur Linda writes in her book entitled ‘Intelligence Can Be Taught’ that many students with weak IQ are found to do excellent in intellectual fields at later ages whereas those regarded as talented and bright on the basis of their high IQ were failures at higher levels.... Charles and George were twin brothers born in Lechworth, New York in 1939. They were born prematurely by three months so they were very weak physically. When they were three years old, their IQ 62 was found to be in the low range of 60 to 70, so they were declared as mentally underdeveloped too. Sometime in 1963, Dr. William Horwitz of the New York State Psychiatric Institute examined this duo and he felt something peculiar about their minds. He was keen to test whether it was due to some hidden talents in these patients. Dr. Horwitz stated a random birth date and asked George about the day on which it could have fallen. He also asked some more dates and days in the past, present and future in random orders — e.g., “what would be the date and day, two months after a given date...?”, etc. The boys answered correctly each time in a matter of few seconds. It was discovered only then that both Charles and George were able to mentally find the complete dates of any day — hundreds of thousands years in the past or in future — almost instantly. Surprisingly, they did not know the detailed rules of any calendar, nor were they able to solve simple one or two digit summations. Dr. Horwitz had experimented on these twins and tried to decipher some secrets of their exceptional talent but in the vain. He concluded by stating that — “Human brain is endowed with latent sources of immense intelligence which are yet unknown to the modern science and psychology....”. Jadeiya Barcon of England also possessed supernormal talents though he was found to be so dull in studies in the childhood that his parents preferred not sending him to any school. He could not even learn reading and writing. Its amazing that without any exposure to elementary Mathematics, he had started solving complicated arithmetical problems few years later.... Barcon had terrific memory. Once he was watching a drama in a theater....; after an hour's show, he could correctly tell how many words were uttered by the artists in different dialogues and what number of steps —

movements of feet were taken by the dancer during that period.... He was also able to narrate all dialogues so well as if he had been rehearsing since long. He used to multiply pairs of numbers as huge as 365,365,365,365,365 in a minute's time. Though, he had no knowledge or training in Arithmetic, he stood successful in a large numbers of tests conducted by the experts to adjudge the authenticity of his exceptional mental power. Dr. D.C. Reef and L. H. Sneider had reported of similar talents of a person in 1931. This man was able to find the square root of a four-digit number in 4 seconds and cube root of a six-digit number in 6 seconds only. John Von Neumann, a distinguished mathematician, is recognized as the father of Computer Science. He was able to solve hard problems in Algebra and Logic without the help of any calculator or arithmetical operations. Although maximum examples of exceptional talents are found in the areas pertaining to Mathematics, demonstrations of such skills in other disciplines too are not insignificant. J. H. Pullen was honored as 'Genius of Erlsewood Assinum'. This great engineer had amazed the world in early 19th century by his 10 ft. high three dimensional model of a huge complicated structure of a ship. He had designed this model after 3 years of hard work. He developed each component of this ship with intense care. Pullen had also fabricated a machine to manufacture about a billion wooden pins required for fixing the base and side sheets within the outer frame of this ship. Dr. Martin W. Burr had examined a 22 years old patient of epilepsy sometime in 1818. This was a unique case. Howsoever complicated and lengthy text in Greek, Japanese or Denise languages was read in front of this patient, he was instantly able to narrate it as it is... Gotfreed Mine possessed similar talent but in the field of Fine Arts. His extremely charming and lively paintings of little 63 children and Kittens had gained significant popularity in Europe. Kind George VI also purchased one of his artistic creations. Some of his works are kept in the museums of Berlin, Zurich and Bern. It was sometime in 1970, when Prof. David S. Viscount had tested the supernatural musical talents of Harriet in Boston. This lady was able to reproduce the musical compositions of great musicians like Mozart, Vithovan, Schwartz, Debuchi, Prokophiyeva, Bardy, etc in their original styles. She used to play musical instruments marvelously. Remarkably, she had never undergone any training in music and was unaware of formal knowledge of musical notes, amplitudes, tunes etc. Moreover, upon listening to any musical composition she was able to tell the exact period when and where it was originated and also describe the details and interesting aspects associated with its creation. She was also able to play an original composition of one musician in such a manner that it would sound like the creation of some other established musician. For instance, she used to play 'Happy Birth Day' in a large number of different tunes each of which was quite popular and enchanting.... Justice Charles Evan Hughes, former Chief justice of America too is recognized as a wizard of numbers like Shankuntala Devi of India. Justice Hughes' memory is compared with that of a modern electronic computer.... Once he dictated a speech to his stenographer for about two hours. Though, he had no written notes, he was able to repeat the same speech as it is after some time. His unique intelligence is still a matter of great curiosity and interest to the people of America. Until Dr. Horwitz researched on abnormal cases like that of George and Charles, it was believed in the early 20th century that exceptional talents work on the basis of recollection of patterns stored in memory. Scientists have proposed different hypotheses to explain, in parts, the existence of extra sensory powers of the human brain. Some attribute this to the possibility of special kinds of yet unknown hormones and neurotransmitters, some others argue that a super computer like special neuronal system exists inside the brain which is rarely activated.... Some psychologists like Dr. T. L. Brink consider the left side brain as the source of hidden talents, which needs to be stimulated by immense concentration.... Howbeit, none of the approaches of the neuroscientists have led to any viable conclusions. The hypotheses focussed on relating intelligence and other mental potentials with heredity have also proved to be nothing more than speculations. Modern psychological approaches are also confined to behavioral analysis and insignificant measures like IQ. These considerations focus only on a small fraction of human intelligence which accounts for cleverness and presence of mind in general. The genius which gives rise to great discoveries and inventions is beyond the grasp of current research. The source of intuitions, insightful imaginations and eminent thoughts cannot be reached via these approaches. It's only a tip of the iceberg of human intelligence which has been realized and studied so far.... The acquired knowledge, intensive training, talents and creative endeavors of the past births do bear their subtle inscriptions on one's mind which offer manifold returns in the present life and so on..... The scientists and scholars of spirituality consider the samsk³ras assimilated — during the

endless journey of the soul — in the extra sensory domains (mana, buddhi, citta and aha@k³ra) of the mind as the source of inspiration for shaping one's intellectual potentials, talents and conscious, subconscious 64 and unconscious activities. Rousing of specific samsk³ras from this accumulation results in sudden elevation of one's mental powers up to supernormal levels. Talents With Insanity! Bioelectrical sparks in the fourteen hundred grams jelly-like stuff of human brain play wonders.... These may sometimes lead to the awakening of old memories, rousing hidden talents or, on the other extreme, make one practically mad. The gamut of peculiarities of insane mind also includes many notable cases. Several years ago, three special children were admitted in the mental hospital of Bristol in England. These children were completely mad according to expert psychiatrists. They were unable to perform even the essential chores of day-to-day life. Despite this insanity, they were experts in different areas of creative talents. Peterson, a 14 year old in this group was 'gifted' with an exceptional talent in music. May any expert from any corner of the world play howsoever-difficult tunes on violin before him, in response this boy could reproduce them excellently in the same order with perfection. At times, while listening to a tune, he even used to suggest some modifications and make the compositions more melodious. Another boy, David Keet was a fantastic painter. He had to look at a scenery or design just once in order to draw beautiful picture of the same. He was equally good at re-sketching all kinds of architectural designs. He used to be always busy drawing something on the paper as per his imagination. Just by seeing a photograph of the World Trade Center (USA) this insane boy had drawn attractive three-dimensional picture of this popular building. No one could believe that this kind of eminent painter happens to be mentally retarded.... The third boy was Sevenize whose mind used to work like a high-speed computer while solving arithmetical complexities. The day of any date in the past 700 years and historical events, if any, occurred on that date were uttered by him as and when asked in such a manner as if he is viewing the incidents on a film projected in front of his eyes. Ironically, unless engaged in the above activities of their liking, the boys used to behave very aggressively and force the visitors escape from the hospital. Such cases pose unbeaten challenges before the neuroscientists. Who knows, great talents like those of Menuhin (in Music), Picaso (in Fine Arts) or Ramanujan (in Mathematics) might be hidden in the latent layers of their minds! Or, is it that only specific portion of the neural network in the brains of such persons is activated permanently while other functions - those pertaining to normal behavior and basic wisdom are suppressed? How their body-functions regulated to a healthy level in the later case? Whatever be the reality, one thing is certain that such exceptions do give us a glimpse of the Omnipotent character of the cetan and its Supreme source. HE perhaps wants to teach us — how limited and illusive is our knowledge against the absolute truth and at the same time give us the feeling of how gigantic and diversified is the expansion of our tiny brain..... Are Super Brains Cranky Too? Noted scholar and psychologist Holmes had met many mental wizards. Some of them also had good contacts and friendship with him. He had keenly observed the common features in their personalities. He had also analyzed the information available on many other exceptional talents whom he could not 65 meet or observe personally. His studies had drawn interesting conclusion that - super intellectuals are also eccentric to some extent. Holmes had reported evidential incidents along with logical arguments in favor of his inference. His main argument was that – wizard of a particular discipline of knowledge or talent inadvertently focuses all his mental powers along a single track. As a result, he reaches high levels of sagacity in a particular area of expertise but, due to the same reason, he tends to lack proper attention or wisdom in other walks of life and commits blunders at times. His day-to-day activities and social behavior too is often so haphazard that people begin to consider him as whimsical in many respects. Shakespeare too has supported above conclusions and expressed the views that — although there is no insanity or deficiency in the minds of super talents, because of their excessive interest and involvement in limited activities, they gradually tend to neglect many facts which are important for other civilized persons. Valetta Scot has been a popular poet in Europe. Interestingly, many a times he used to regard his own poems as that of a reputed poet 'Viron' of earlier times and present them before the audience with great reverence. He would realize the illusion only when one such poem published under his own name was shown to him. Noted philosopher Schlitz often used to be so engrossed in thinking that even the friends, sitting across the table, with whom he was conversing sometime back, would appear stranger to him and he would even ask them for introduction and purpose of their visit... He naturally used to repent whenever his conscious mind would

come down to a normal level from the journey deep beneath the unlimited ocean of thoughts..... Many such stories are reported about Albert Einstein too. Once he called on a friend over dinner. He somehow got the impression that it is his own house and the friend is visiting him. Long after the dinner was over, he continued discussing something or the other with the latter; he would look at the watch but keep quite out of formality.... When it really became too late, he thanked the friend for visiting him and giving so much time.... and also fulfilled the formality of inviting him to visit again... It was indeed amusing for the host! He laughed and conveyed the truth to the absent minded scientist who had wasted precious time due to an abnormal illusion.... Alexander Duma has made significant contributions to French literature. He was whimsically particular about the choice of ink and paper. He would write novels only on blue colored papers, poems on yellow papers and play scripts on red papers. He used to hate blue ink and always wrote with some other colors. Mopansa was habitual to writing while sitting in the right corner of his room. But, often he used to be so confused about the directions that he would first go to the left corner..... Surprisingly he used to be out of the tangled state of mind soon after completing the job in hand. Carlyle has reviewed the literary works and life of Charles Lomb. He comments that Lomb was no doubt distinguished and respectable in terms of his contributions to the literary world. However, his personal life and routine activities were so abnormal that one could easily mistake him as a variegated lunatic. 66 Shailey, the celebrity English poet was dead against the people who would plan and work towards materializing wars. He often used to write long letters to preach such acrimonious fellows..... But, he was crazy enough not to post any of them. He would instead close the letter in a bottle and throw it in the river Thames, with a hope that the medium of water will easily carry his message to its proper destination.... Hundreds of letters were flown by him in this 'noble' venture..... It is said about a German poet that he used to keep ice slabs beneath his feet and always - even in the chilly weather of winter kept all the windows open because only then he was able to create good poesy! A pianist of Poland was in great demand and used to be invited in many theater programs despite his high charges and crazy behavior. He had a funny habit..., he would never sit where the piano and his chair is set initially. Rather, he would move around the stage and try arranging the chair here and there till he found a place suitable to his whim....; he would play his instrument only while sitting at that particular spot. Somerset used to draw a wicked eye on every paper kept on his table. Whenever questioned about this 'habit' he would be unable to give a definite answer and attribute this to some unknown inspiration.... French writer Emil used to count the road lamps on every street he walked along... in case he felt that he has committed a mistake or left some lamp-posts uncounted, he would go back to the first corner of the street and continue recounting... Why he used to waste time and energy this way was never clear to him either. He used to state this as an unavoidable habit.... Another scholar named Bacon, used to rove around in an open cart during the rainy season. He believed that drenching would offer him blossoming benefits as it does to the plants.... The mighty kings like Changez Khan, Alexander The Great, Mohammad Tugalak, Nadirshah and Aurangazeb etc, could never enjoy anything in life because of their craze for conquering larger and larger pieces of land and enslaving more and more kingdoms.... They were never able to see whether the already grabbed regions were managed well or not, or, whether there was any revenue obtained from the conquered states....; they just liked battles to continue around them..... Experts who had analyzed Hitler's life and psychology comment that he was only a bewildered adventurer; he had no foresight or analytical mind to assess the consequences of his whimsical egotist actions. The so called book-worms or those engaged in excessive reading and writing or any other activity out of over-ambition or uncontrolled inclination towards a particular hobby are also found to be eccentric in one respect or the other in general. The holy Bible quotes at one place — "too much of studies has made you mad...." Supernormal Talents – Proofs of Extrasensory Assimilation In normal course, our gross body grows gradually keeping in harmony with processing of the biological system. The evolution of brain and mental development also take place in an orderly manner in general. The rate of progress may be different and the influence of learning environment, training, motivation and endeavors of the individuals may also play a significant role in enhancing intellectual potentials and wisdom..... Despite this 'normal' level of diversity, there exist some people whose brilliance and talents are indeed exceptional and cannot be explained by biological, psychological or any other scientific theory or law of nature. The history of mankind has witnessed many people born with such exceptional talents. In some it appears to have roused all of a sudden. The

subtle (extra sensory) impressions of the cumulative 67 mental potentials and knowledge assimilated during the previous lives seem to manifest supernormal functions in such mental wizards. A French boy named John Luis Kardiek had started pronouncing English alphabets at a primitive age when the voice of most normal children is heard only when they cry - he was a baby of three months at that time...! By the time he celebrated his 3rd birthday, he was able to fluently read and speak Latin. He had learnt French, Hebrew and Greek when he became 5 years old. Within next one year, he mastered over the diverse subjects like History, Geography and Mathematics. This child prodigy left the physical body at an early age of 7 years. William Sydis had taken the entire American continent by surprise as he, at the age of just two years, had demonstrated masterly command over written and oral expression in English. In next six years he had gained similar expertise in six foreign languages — including Greek and Russian which were hardly used in America those days. Distinguished intellectuals of his time were startled upon hearing about the existence of fourth dimension in one of the eminent lectures given by 11 year old William. The three visible dimensions of the space were considered as ultimate until then. Equally shocking was the fact that the supernormal intellect of this boy had disappeared in the teenage.... Thereafter he lived with average mental potentials. George, the son of a farm-laborer in Devin, England had started manifesting extraordinary expertise in Mathematics when he was a child of two years age. At the age of 4, he was able to orally solve difficult puzzles in this subject in a matter of few seconds to two minutes' time, whereas the champions of Mathematics used to take at least half-an-hour to resolve the same problems with the help of pen and papers.... Like an esoteric event, George lost this talent after crossing 10 years of age. He was an average student all through his life after that and passed Civil Engineering with great difficulties. William Henry Betty was a celebrity child actor. His extraordinary talent in the field of acting had made him a super star in Europe when he was hardly 11 years old. The entire film industry was surprised by the performances of this born-actor. Covens Gordon of London too was a child actor born with similar talents. People were crazy to watch his acting; the army was called to control the crowd during one of his popular shows. No other actor was able to receive the high amounts he was paid those days by the producers. What more! even the session of the House of Commons was to be postponed once because, there was a special show by this enchanting child star on the same date which the members were not ready to miss at any cost.... Those who do not believe in reincarnation and consider human beings as mobile plants or living machines, they may not accept the existence of the cetan (soul) after the death of body. How would these so-called rational thinkers explain the extraordinary talents expressed since birth and the supernormal intelligence manifested in biologically normal humans? All plants and animals grow and manifest specific potentials as per their natural tendencies. Then why should the living system of humans be allowed by nature to break this universal rule? Is there nothing special in human mind? What are the limits of its inner expansion and the sources of extrasensory powers? In-depth investigation to resolve such queries, particularly in view of the authentic evidences of supernormal memory, brilliance and other talents, would elucidate the existence of subtle domains of human mind and the assimilation of samsk³ras of the previous lives in the inner cores of consciousness. 68 Refinement Of Talents In The Laboratory Of Life People are often heard blaming the complexities and hardships of life for their insignificant intellectual development and lack of talents. They try to seek reasons of their own deficiencies in the circumstances. This type of evading attitude is illusive and misleading. The truth, as expressed by the eminent thinkers of all times and as also evinced by the lives of many great personalities, is quite different, rather, contrary - it recognizes impedance and adversities in life as the best opportunities for stimulating the internal power of mind and rousing the hidden talents. Glorious Indian scholar, justice Ramchandra Dattatreya Ranade opines that challenges and testing times activate the otherwise dormant powers of our minds and open up the ways for cultivation of newer potentials. Renowned Chinese philosopher Zang Thyang finds the entire history of the ascent of human intellect as full of examples of awakening, refinement and sublimation of the mental potentials by struggling with the hindrances and hardships of odd circumstances. Psychologists describe tragic moments and difficulties as integral parts of human life. If one realizes their importance and accepts the challenges posed by adversities, one can make good use of them in several respects. In fact, troubles and tragedies are not so fierce and painful as they appear from a distance or in imaginations..... It is one's attitude and mental preparation that makes all the difference. Under the same

circumstances, in which most people might cry and curse their fate, some others may receive new inspirations and find opportunities to test and refine their inner strength and talents. Weak mentality creates terrible circumstances in its negative thinking and illusive imagination and keeps losing internal peace. On the other hand, people with firm and matured state of mind remain calm and balanced in all conditions – howsoever disturbing and disastrous these might be. Their mental strength gives them courage to think and endeavor to find a solution and fight the adversities with dignity. Their sincere efforts in turn exalt their hidden capabilities to a great extent. In his book entitled ‘Psychological Study of Problem Solving and Adventure’ German psychologist Von Des Geer has described bodily problems, mental complexities and circumstantial adversities as natural components of human life. According to him, our mind is totally engrossed in a focussed domain when we search for a solution to come out of a difficult situation or resolve a complicated problem..... This is a good exercise to penetrate the core of mind. This activates the dormant power stored in the deeper layers of mind. Solving mathematical puzzles is therefore considered as a good exercise especially, for accelerating the mental development of young children. The same principle applies in the adventurous moments in later stages of life. While resolving a worldly difficulty at its peak, attacking an intellectually challenging problem or venturing an apparently tough task, all our existing physical and mental potentials get collectively engaged in a common task and multiply our strength and talents significantly. Sports competitions serve similar purposes in a pleasant manner. Games like Boxing, Kabaddi, Football etc help enhancing physical strength and the games like Blocks arrangement, Cross-words, Puzzles of numbers, Chess etc support sharpening of mental skills. Erudite psychologist B. Ghislaine writes in ‘The Creative Process’ that one who has successfully struggled with the hindrances and adversities all through his life becomes much more strong and talented than those who have always enjoyed the so called happy life of comforts and luxuries. He had shown by experiments on many school children, teenagers and youths that occurrence of some kind of challenge or trouble is necessary for the creative use and exaltation of one’s capabilities. 69 Deliberate acceptance of impedance and hardships in life and practice to face them boldly and intelligently also open up the path of steep rise in specific abilities. Training of military and police personnel is the best example of the above mentioned productive efforts. Their training indeed consists of adventurous performances of conquering variety of obstructions which appear, at a superficial level, to be nothing less than tortures..... However, the reality too is well known. Passing through such ‘tortures and adventures’ leads to the uplifting of the trainees’ physical and mental potentials to such heights that they indeed accomplish wonders in the battle fields. Their terrific performances often appear to be superhumanly.... Gold does not get its pure brightness unless constantly heated and gleamed in the terrible heat under fire. It would appear dirty and dull without this purification process. Human personality too becomes truly eminent, impressive and dignified after passing through the warmth of serious difficulties and boldly facing the challenges of life with perseverance of high ideals. Calamities play important role in refinement of talents and overall personality development. However, these are like double-sided swords and may lead to altogether opposite effects. Those who get scared and succumb without struggling till the end remain the losers.... On the contrary, success ultimately glorifies those who face all circumstances with a sportsman’s spirit and sincerely try their level best to fight the adversities. We ourselves are responsible for either kind of consequences. The calamities of time may prove to be a curse or a boon according to how we have tackled them. One, who welcomes bad times and hardships as calmly as he would accept the apparently favorable circumstances, lives a sporting life and is cheered by ultimate benefits. His life also becomes a source of inspiration for many others.... We will find the same secret lying at the foundation of the edifice of glorious lives of the history making great men and women of all ages. Most of them were born with hardships and utterly adverse circumstances of life. The great personalities, who were born with a silver spoon in hand, like revered princes Buddha and Mahavir, etc, had willingly chosen to renounce the wealth and comforts of life. They followed the thorny path of adversities and challenges because, the latter indeed offer the best means of shaping and sharpening the diamond of human idealism. No one can reach the high realms of viable successes without the ladder of overcoming the adversities by optimistic and thoughtful endeavors. Hindering circumstances are as important in the attempts to refine the personalities as hard labor in an industry or good taste in food.... The secrets of the unparalleled successes of the industrial giants like Henry Ford, Jamshedji Tata, Jamnalal Bajaj, etc

also reveal the same truth – the roots of their lives grew healthier and stronger in the climate of struggle and hardships. In spite of reaching remarkable heights in business, these altruist personalities preferred austerity and unperturbed industriousness to comforts in their personal lives. The wealthy and prosperous people who undermine the benefits of adopting such ideals gradually suffer from the mal-effects of excessive luxuries and addictions of one kind or the other. The possibility of such negative developments is naturally annulled in case of those who keep themselves occupied in hard work and creative thinking to solve the complexities of their own or others' lives. The latter kinds of people attain glorious talents while progressing in the noble missions of their lives. The cowards, greedy or lusty persons who do not have any mental or inner strength get scared of even a glimpse of a danger or a possibility of hardships; their life ends under self-imposed stress and turbulence... without reaching anywhere near the goal of true happiness. 70 That 'there is no progressive movement without obstacles' sounds odd at the first instance. Thinking a bit deeper on this statement makes its validity clearer.... In fact, this is a scientifically viable principle, which applies to every field of life including the activities of our body. If all the friction of the earth's surface was removed and it were made absolutely smooth, we would not be able to walk even an inch and slip down at every step. We cannot fix a nail in a heap of cotton because there is practically no resisting force there.... The Chhandogya Upanishada considers the above principle as the root cause of the continuous changes taking place in the natural environment of life. It is stated in this scripture that the Omnipresent Supreme Consciousness of the Brah[®] wants every form of life to culminate up to its original, absolute level. It offers enormous opportunities for this purpose, in the form of ever-new manifestations of nature in all the ja^Ã and cetan forms. The fluctuating circumstances make the solutions and means of earlier times as irrelevant and inappropriate in the new situations. The biological and physical conditions and emotional states are also dynamic in nature. New endeavors, new courage and skill is required to meet the challenges and demands of the present along with due consideration of the consequences and future aspects.... This triggers a cycle of progressive movement in every walk of life. Ibasina – a great thinker of ancient times had described the world as a laboratory designed by Mother Nature for successive development and evolution of her children. In his views, this mother of all living beings trains us by creating troublesome situations and complications in our lives. The terrible times, impediments and challenges posed by its unsteady circumstances at physical and psychological levels of human life are like instruments offered for exaltation of people's potentials. As the mental development of school children is supported by making them play with varieties of toy and puzzle games, the dynamic form of nature in the domains of our lives also teaches us new lessons and stimulates our dormant powers... We must adopt a sporting attitude and optimistic temperament to realize this fact and endeavor to make the best use of the laboratory of nature for the amelioration of our qualities and capabilities. Why Mental Complications and Insanity? Psychological aberrations and diseases do not have any visible symptoms. They are often too difficult to be diagnosed correctly. Most of their effects are so subtle that there appears to be no problem with the patient and no possibility of a serious harm to his health can be expected without a deeper analysis. Even in some psychiatric cases, the patient only appears to be impudent and preposterous. There is no sign of — whether it is in his nature or what has been the type and cause of the mental discrepancies or physiological abnormalities which have put him into the swamp of psychological disorders and deficiencies. In the absence of apparent symptoms many psychological complications and associated mental diseases are not cured rather, not even noticed. The family members often ignore even the physical (bodily) problems of women as pretension and illusions. Then, where is the scope for recognition of their mental stresses and psychological problems? Psychological diseases are also not cared for because of the lack of public awareness about their varieties and consequences. Despite their subtle presence and mild manifestations, the severity of harms caused by mental complexities and psychological disorders is in no way lesser than that of the gamut of somatic 71 diseases. Many people have reached high realms of success despite physical disabilities and injuries of the body. However, no psychiatric patient or mentally retarded or disturbed person has yet been able to accomplish, on his own, something remarkable in human history. Sagacious scholar of Sanskrit, Maharshi A^U³vakra's body was bent at eight places including back, neck, limbs and shoulders. Trend-setting intellectuals like Cha^ñkyā and Socrates were deadly grotesque in appearance. ^Âdi Shankar³charya was suffering from fistula in the anus when he made the erudite contributions to the adept analysis and propagation of

Vedānta Philosophy. Saint Surdas and several other celebrity poets were blind when they made historical additions in literature. Helen Keller, despite being deaf, dumb and blind, had mastered in the literature of several languages and other disciplines of knowledge. We can also find ample number of incidents in human history where bed-ridden people had made masterly contributions in the fields of arts, science and literature... These examples further approve the fact that body is like an instrument while the brain (mind) is an independent controller. Disruption in proper functioning of this regulating authority makes one disable indeed. A physically handicapped person might help others in several respects because of his experienced mind and creative knowledge... but, mentally handicapped or diseased one practically becomes a burden on his family and friends. The occurrence of insanity is increasing in today's society at a rate faster than that of any disease of the body. The inconvenience caused to others because of uncontrolled and abrupt behavior of the mad ones raises the need for setting up of mental hospitals and psychiatric care and rehabilitation centers. In view of the present trends the number of such centers in any country might super-seed the number of jails there! People suffering from different kinds of psychological disorders outnumber those facing bodily ailments and diseases. The number of eccentrics, whimsical, mentally disturbed and unbalanced and psychologically disharmonious individuals is so large today that only a small fraction of human population might be found in vigorous mental health. The cranks or mentally disorganized people by and large hinder the harmonious progress of the entire society. It is lamentable to note that no significant effort has begun to prevent the growth of insanity or psychological complications in human population, notwithstanding the possibility that the impediment caused by this problem might prove to be stronger than the challenges of poverty, malnutrition, illness and illiteracy etc. Crimes are also consequences of mental excitations motivated by abnormal sentiments. These are carried out in almost insane or intoxicated state of mind. Many a times it is observed that thieves and burglars repent on their misconduct and want to leave the amoral activities. They are also aware of the life histories of people who have excelled ordinary lives through the sincere path of honesty and industriousness. They accept the advice and support of well-wishers in this regard and even try to adopt propriety of conduct.... But, somehow their mind gets trapped in such unusual excitations sometimes that they can't help committing the same mistake again.... The addictions of smoking and intoxication often prevail because of the pressure of evil habits and lack of proper treatment of the root cause — psychological complexities. People addicted to narcotics and liquor etc are usually aware of the obnoxious consequences like losing health, money, prestige, friendship and support of the near and dear ones and they even try coming out of the clutches of the untoward tendencies... However, the storm of mental and emotional aberrations and weaknesses shuns away the reasoning and retards their resolutions in no time and almost compels them to consume the apparent 'slow poison' again and again.... Sociologists may call it a result of stubborn or wicked tendencies and blame it to deterioration of social environment but, in psychological terms, it is a state of helplessness much like that of a person suffering from high fever or severe headache etc. The individuals possessing criminal or aggressive instincts are called "sadochopaths" in Psychology. Analysis of the mental state of such subjects indicates some kind of abnormality, imbalance or disorder in their psychological makeup. Mental and emotional peace, stability and harmony are signs of good mental health. The large numbers of tiny components of the brain work collectively with adaptive connectivity and co-operation. Even a slight perturbation or disorder in this harmony and synchronization results in a variety of psychological abnormalities. Modern psychologists classify the functional domain of mind into four categories, which need to be systematized for maintaining mental balance. Analysis of — how and to what extent the mutual compatibility of these entities, namely, Effect, Thought, Behavior and Mood, is disturbed, sets the basis of diagnosis of psychological diseases in general. We shall discuss some of these aspects below. (i) Effect: This term refers to the soundness and awareness of mind. A person lacking in this ability cannot envisage other's reactions to his behavior. He cannot reason about the consequences of his activities. His desires and instincts are ultimate for him...; he cannot think beyond.... The gamut of his actions and imaginations remains confined to the present circumstances and conditioning of his mind. This accounts for lack of maturity and vision and results in naive and even pernicious activities on part of the concerned individual. Such persons are not considered worth giving any responsibility. People often make fun of them and laugh at their childish self-centered behaviour. Because of the deficiency in mental effect, such individuals cannot even notice other's fun,

scorn or insulting behavior. (ii) Thoughts: Any hindrance or abrupt fluctuation in thought process shakes the smooth flow of reasoning and imagination.... A person devoid of sound thinking loses analytical abilities too. He cannot assess the correct potentials of available means and circumstances and tends to overestimate or be prejudiced about the outcome of any effort. He cannot judge the feasibility or applicability of his planned projects. His estimates of time and resource requirements too are often far from being realistic. Imagination and reality have no difference for his bewildered mind. He practically lives in an imaginary world. People suffering from disorder of thoughts often become boasting daydreamers and fly high without any basis. On the other extreme, if their imaginations and flow of thoughts is oriented in the negative direction of gloom and despair, they lose confidence and face great difficulties even in the transaction of daily chores without others' support. The abnormal and disorderly thinking sometimes eludes the sense of ethics, morality and social etiquette and one thinks and talks so awkwardly that might embarrass the listeners... (iii) Behavior: False impressions from other's behavior and lack of recognition of other's intention - are immediate consequences of disharmony of the behavioral judgement system. People facing behavioral disorder cannot distinguish between friends and foes. A teenager girl fallen in love often creates such intense impressions and prejudiced convictions about her boy friend that even if the so called lover exploits her, she willingly submits her life in his hands. Her beloved appears to be most faithful to her and she refuses to consider any advice of any well-wisher which attempts to warn her or prevents her from furthering her love affair. This kind of immature love often proves to be futile and disastrous for the innocent girl. 73 Other extreme of the partial insanity or frenzy of the above kind is over- skeptical behavior. People subjected to this abnormality feel insecure and look at every activity and persons or things in contact with suspicion. They get false impressions of some people as if the latter would conspire to kill them or attempt maligning their image or seriously harm them by things like black magic etc.... They often remain scared by the self-created imaginary possibilities of accidents, death, assaults, irreparable loss, jail, separation from the near and dear ones, bad omen, etc. Such people cannot resolve even minor problems of life. Even for small issues, they may be seen sending the complaints and grievances directly to the highest authorities – even to the Prime Minister or the President, because they just don't have any faith in any officer or authorities at a lower rank... Some times they develop false notions as if they are exceptionally intelligent, mighty or great personalities endowed with extra sensory powers. This category of psychological disorder is called paranoia or megalomania in which the 'patient' lives with false inferences and imaginations about every facet of life.... (iv) Mood: The temperaments of a 'moody' person change so frequently that he often appears to be eccentric or almost mad.... Some times they are too enthusiastic, cheerful and optimistic while at some other times, without any apparent cause, become so worried, apprehensive and subdued, as though a demon's stick has fallen on their head. The negative moods induce "depressive maniac". In this state of mind some people begin to feel as if they are being attacked by incurable disease or the end of their life is too near, ..., etc. In other extremes of the tides of their moods, such maniacs feel convinced – without any reason or evidence, that their destiny would flourish all of a sudden because of winning an election or a lottery or obtaining a hidden treasure... etc. At times, in the abnormal upbeat moods they also presume that they can rule over divine powers and do whatever they desire for.... The disorders listed above are present to some extent in a vast majority of people today. Mostly it is our ignorance or negligence of maintaining psychological fitness, which allows mental perturbations of this sort. Except for the cases of head injury, wrong surgical operation or shock treatments, there is very little possibility of an abnormality arising due to a change in the biochemistry or structure of the brain. Nature has made marvelous arrangement for protecting this precious organ – from external injuries and environmental fluctuations – under the compact covering of the skull. At physiological, biochemical and bio-electrical levels too, brain has been given utmost importance and the natural system takes care of preventing intrusions due to random changes in body's functions and internal environment. It is mainly the mistake of the individual self — its inherent tendencies and conscious mind, which mishandles this delicate unit (organ) because of ignorance or negligence. If an untrained or careless driver is allowed running a sophisticated car, the end result is quite obvious — damage or total dismantling of the vehicle. Similar would be the fate of a computer if a computer illiterate or mischievous system's operator were given charge of it. How best a working system or tool is utilized largely depends on the efficiency of the user. An utterly delicate and orgulous

organ like human brain also requires attention and optimal use for marvelous performance at intellectual, mental and physiological levels. Human life is constantly subject to the ups and downs of exquisite and adverse circumstances, good and bad experiences, pleasant and painful encounters..... If one loses patience and mental balance 74 with every small change, the frequent excitations or depressions, even if of mild nature, would disrupt the harmonious functions of the sensitive system of brain. Sometimes people expect a lot from a project or begin an ambitious task with enthusiasm but get wild or extremely upset if it does not succeed due to lack of substantial support or means or due to circumstantial hurdles etc. The heat generated inside the body in this excited state of mind burns the delicate components of the neuronal connections. Negative sentiments and malice like jealous, hatred, fear, wrath, ego etc, also cause different kinds of damages to the brain and the mental system. These deficiencies or vices arise in the inner core of the repository of sentiments mainly because people are not aware of the origin and purpose of their life. Wrong attitude towards oneself and the world around also hinders one's discerning intellect and ability to wisely adjust with circumstances. The science of spirituality focuses at illuminating the inner self and inspiring righteous thinking and sentiments which can refine the subtle domains of unconscious mind and set the attitude and activities of the conscious mind harmoniously. Adoption of spiritual principles may deplete the root causes of eccentricity and insanity seen prevailing in human life today. Why Is Man Scared Of Death? Since the manifestation of its existence, human life remains confined within the barriers of time.... Every moment of one's survival also amounts to corresponding loss in his life-time.... Until past several decades, it was believed that there is no decay inside the body during the period of its growth... but the scientific findings have revealed altogether different facts. As George A Volhem has established in his book entitled "The Search For Ways to Keep Youthful", our body is constantly subjected to decay since the time of birth. Millions of cells die almost every second and are replaced by the new ones. This in other words, implies that the body under the effects of the eternal laws of nature continuously marches towards death since the unfolding of life.... This effect becomes more evident with aging... It is an unfortunate part of one's existence as a human being that, though he has to live within the barriers of time and space he does not want to accept it.... Most people enslave their lives under the thraldoms of desires and selfish attachments and survive as 'captured' within the influence of surrounding environment and circumstances of life of which death is an alert "watchdog".... The realization that the comforts and joys of life now available are not permanent and life itself would end after a finite span of time under the universal laws of nature and that no one has any control over his or her departure..., makes most people panic. Every sensible person knows very well that death represents the line of separation between animate and inanimate forms of existence. This difference cannot be annulled by any school of thought or by any effort.... This fact implies the limits of one's existence and the temporary nature of one's life.... One has to face intense impediments in any attempt to mold the circumstances as per his will; this also reminds him of the limitations and uncertainties of his life. An intrepid and mentally strong person may never succumb to any pressure but, as the existentialists put it, he, like everybody else, will have to accept his inability in evading the eternal laws of nature and life.... Commitment of mistakes of one kind or the other by every one sometime in life... and helplessness of everybody in the event of death are best indications of the limited potentials of human beings.... The deliberations of existentialism also focus on the most sensitive issue and weak point of human life while remarking that - one might successfully struggle and overcome all the obstructions during 75 life but, in no case, he can ever avoid the ultimate event — death. What is there in the void of the 'life after death'? This esoteric question stands as an impenetrable shield in front of human intellect? Looking at death from the angle of the existence of life would show it as a tragic moment of elevated and delicate sentimental state of a person during which, his Self knocks at the boundaries of the gross body. And, in want of a reply, it remembers — in absolute silence, those relatives and friends who had departed the body in front of him and had disappeared in the subtle world there after... His mind soon begins to enjoy the possibility of reunion with those 'lost' souls... Whether one really has above kinds of experiences moments before death may not be proved in any laboratory because the dead one is no longer available to verify his reactions.... Nevertheless, many spiritually refined personalities, parapsychologists and people with extraordinary acumen have independently expressed similar views from time to time about the feelings of individual self at the time of death.... Manifestation of the existence of the soul through the medium of the body of

someone else and the metaphysical experiments of communication with the souls outside the gross body also help decipheration of such esoteric experiences and subtle memories of life before and after death.... Parapsychological studies on reincarnation are often based on awakening of such memories.... Fears of death, thoughts of end of life and vanishing of the existence of individual identity...., usually make one feel lonely and depressed... Still, no one would like to accept the positive thoughts that death is a natural part of the process of life and a human being should willingly accept it like other natural activities of body...., etc. Such arguments or thoughts would sound unreasonable and imaginary in view of the common observations that in spite of suffering from incurable diseases and severe pains and hardships, most people would not like to die immediately... There is always an intrinsic desire to live more. Hopes and attachments with life keep them tied to the present thralldom. It sounds like an unavoidable tragedy of human life that a person who spends all his time in this charming world as a social being has to depart all alone in the end.... Nobody, howsoever dear or near, can come to his help or accompany him in this last journey nor is there any committee or group of individuals to welcome him at the other end... No apparent guidance is available to him towards venturing into this new phase of "life after death...". It is said that one is not so much frightened by death as by the thought of leaving the world all alone and by the imaginations about the possible pains and horrors of reaching an unknown destination.... It may be noted here that ascetic saints and sages who have harmoniously detached themselves from the thralldom of worldly affection and attainments live independently as liberated souls all alone throughout their life despite being involved in altruist social activities and surrounded by large number of disciples or needy people... Because of their reclusive attitude they remain free and never feel vexed or scared of the loneliness. One might learn something from their sacred and satisfied life and cultivate optimistic faith that – his soul will continue to exist. It is only the body made up of flesh and bones that will be destroyed after death. The end of this biological barrier would liberate the self to move freely in an open domain of eternal consciousness.... Such thoughts and convictions eliminate all fears of loneliness and mysteries associated with death. In the liberated state (after death) the confinements of sense organs and perceptions are broken and the individual self gets an opportunity to feel its serene and eternal existence as a soul. In this state, free from all burdens and bondage of life, it realizes the possibility of its ultimate expansion, culmination and absolute completeness. 76 Many people believe in this philosophy and accept, in principle, that occurrence of death is a state of transition during the endless journey of the soul. However, because of their inability of deeper contemplation and realization of the Omnipresent eternal existence of the Supreme Consciousness – in particular, and of the soul in general, these ideas and faiths remain only at an abstract level of their thoughts.... Human mind cannot easily contemplate on abstract ideas. This is the reason why, by and large, human society has hypothesized the manifestations of God in some mythological characters representing divinely perfect human beings. As per his imaginations man has assigned visual forms of different manifestations of the Almighty whom he could worship, pray and in whose shelter he could search absolute protection and peace. Human mind has also created blissful imagination of heaven – a divine world where the soul could rest in peace along with the departed friends and relatives and be blessed by the serene company of the souls of angels, saints and great personalities. Interestingly, the trenchant intelligence of some people has also envisaged the reciprocating reactions of evil sentiments, negative thoughts and deeds and that of the malice of character and thereby hypothesized the existence of hell – a system of deadly torturous punishments in return of one's sins. There exists an esoteric subtle and complementary form of Nature – called anti-nature, beyond the perceptible Nature that we see pervaded around us in a wide variety of animate and inanimate components and activities. Sudden encounter with an extrasensory experience of the existence of the anti-nature creates horripilation, unknown fear, curiosity and illusion in the minds of those who experience it as well as those who hear and read about such experiences. In the modern age of analytical thinking, people have attempted thorough study of the subtler domains of human mind and of extrasensory perceptions. As early as in 1933, C.G. Jung had expressed the views in his book entitled 'Modern Man In Search Of A Soul' that — "modern man has made vigorous and sustainable attempts to understand and make use of his conscious mind. Now he should move his attentions to the extrasensory powers of inner layers of mind and realize that arousing these potentials would give rise to supernatural effects and activities....". This assertion of a renowned psychologist and thinker of the present era clearly signifies that the study of extrasensory potentials has

gained recognition since quite some time. And that, people have tried understanding and verifying that such potentials do not result from external effects, rather, they are educed from within – from the deep core of the human mind. Today we are living in a world of suspicion and uncertainty where the possibilities of wars, unreliability of treaties and protocols, scarcity of honest and noble leaders,, etc seem to have become a matter of fact. Common man feels insecure about the healthy survival and protection of his body and his financial and cultural independence, which he has gained after assiduous efforts. The advanced civilization and intellectual evolution have unfortunately offered much more of what could be regarded as contrary to the initial expectations. The vision of creating a happy and prosperous world by intellectual and technological progress has been proverbially proved to be futile like the plans of sucking oil from sand.... This has disappointed the thinkers and well-wishers of human society at large. In Jung's words – “man has now lost hopes of adept creation of any judicious organization. Our dream of ushering into a golden era of peace, prosperity and ideal progress of life now appears like a mirage. Sceptis about future shape of politics and waned possibility of reformation of human society should make every sensible person try elevate his own inner potentials so that he could make best contributions in the creation of an environment in which he could at least shape and control his own future....” 77 In terms of pure intellectual evolution, today we have reached that edge the next righteous step from where would give us a glimpse of the extrasensory existence of human intelligence. No thorough researcher any longer denies the possibilities of supernormal intelligence and extra sensory potentials (ESP).... Manifestations of the powers and talents of extra sensory perceptions, clairvoyance, telepathy, supernormal memory and evidences of past memory after rebirth... etc have now become specific topics of research and have gained more attention now as compared to the earlier time in modern history. It would be appropriate to again quote Dr. Jung here. He writes in the above mentioned book that — “today's man will not accept or follow any religious principle on account of faith alone. He would approve its validity only if adoption of its teachings and implications inspires compatible soothing effects on his own spiritual experiences”. There are no two opinions that the concepts of spirituality are gradually making specific place in the intellectual and sentimental domains of human life. The increasing interest of people towards the inner potentials of mind indicates that man has tested the creative as well as destructive use of the immense power of material based scientific and technological developments but none has provided him with stable peace and security.... Now, he seems to have been inspired by the power of sentiments and seen the bright spot of hope under the metaphysical shelter and divine guidance of that eternal, omniscient, and ultimate power of the soul. With the enlightened support of his inner self and the righteous orientation of the intellect, he would be able to create an environment of life where there will be no room for uncertainty, suspicion or insecurity and in which human life would be illuminated by THY glow.... Mind Is The Foundation & Body The Edifice Body and Mind are intermittently linked with each other. If the body suffers an injury or disease, the mind feels uneasiness, heaviness, irritation and restlessness because of which one can't sleep and also feels depressed and weak.... Similarly, in a troubled state of mind body is subjected to associated effects. In a state of fury, eyes become red, lips vibrate and whole body is charged with excitation... In a frightened state of mind, throat dries up, legs tremble, downy hair on the skin stand in horripilation and there is sudden rise in breathing rate.... The popular saying “healthy mind in healthy body” – is used to emphasize the importance of physical fitness and maintenance of body health. Reality, on the other hand, intensifies the converse more - the body being controlled by the brain and mental conditions can remain healthy only if the mind is happy and vigorous. At a superficial level, food-intake seems to be the major source of energy for regulation of the bodyfunctions. But, it happens only if the metabolic processes continue at normal pace.... In case of indigestion the consumed food putrefies and produces poisonous substances and gases which enter different parts of the body with the blood stream and cause toxic reactions or impede the normal functions of tiny organs... Over-eating or consumption of non-edible stuff is a common cause of indigestion. The other, more internal, causes include – inappropriate secretion of required chemicals or hormones from the mouth, stomach, liver, intestines etc. In this case even small quantities of light and fresh food are not digested. Disorders at the mental level are found to disturb the hormonal secretions necessary for healthy metabolism. Thus an unhealthy mind indirectly converts the cherishing and nourishing support for health into its destroyer... Regular supply of pure blood is essential for maintenance of body and brain functions. More important are the bio-electrical

currents which originate in the brain and constantly flow through the nerve fibers, which activate the intra-cellular and inter-cellular communications and help healthy survival and functioning of the multi cellular systems in the body. Waning of this bio-electrical supply weakens reactions inside the body - at cellular as well as organ level. The fluctuations in the internal mechanism are soon reflected externally as reduced vitality and physical strength and gradual deterioration of health in general... As the essential tasks performed with the body in day-to-day living cannot be stopped nor could the professional and social commitments be performed without exerting it, the body weakens more rapidly in above conditions and it cannot resist the attacks of various diseases. Unless cured, its health continues to perish and may eventually invite untimely death. Digested food adds to the formation of blood, which is purified by the kidneys, intestines and lungs... Heart circulates pure blood via the arteries to different parts of the body... The non-stop functioning of the heart appears to be fully automatic. But, in fact, like any other organ or subsystem of the body, heart too receives the necessary energy from the 'power house' of the brain. The bio-electrical energy generated in the brain is supplied through the nerve fibers and bundles connected to the spinal column. How crucial and orgulous is this supply can be clearly seen in the marvelous processing of hormonal secretions from the endocrine system. The arcane carriers of biological information - the genes play vital role in fundamental processing of living system ranging from reproduction to expression of hereditary effects... The genes too receive the activation energy from the bio-electrical impulses sent to the cells from the brain via the nerves and the spinal column. Lubricants are supplied to a machine to prevent the damage and decay of its components due to friction and heat. The sinovial fluids, blood and flesh serve this purpose for the maintenance of body parts. Power generators or engines supply the required energy to the machines operating in a factory. The brain works as a power generator in the 'factory' of our body. Apart from being the center of expression of conscious mind, of imagination, thinking, contemplation..., etc, this organ continuously generates and supplies energy and information signals to the large number of functional units in the body at molecular, cellular and organ levels. This fundamental organ itself receives the energy of life from the omnipresent cosmic energy through the medium of consciousness. It is often compared with the Geo North Pole because the latter also receives (cosmic) energy from the sun and supplies that to the earth much like what the brain does for the body at a smaller and subtler level. It is no longer considered sufficient to attribute a disease to unbalanced variations in v³ta, pitta, kaÚa, ³di, b³di, kh³di¹² and decide the mode of treatment accordingly. Rather, the analysis of patient's psychology and his mental condition has become an integral part of thorough diagnosis and cure of complicated diseases. Latest investigations have shown that root cause of all diseases lies in mental complexities and disorders. A sizable number of variegating and ever more complicated diseases of the modern age fall under the categories of psychosomatic disorders. Most of these arise due to complications, stresses and imbalances at the mental levels. Other causes, including those pertaining to body conditions only play a supporting role. This is the reason why investigations and analysis of patient's psychology is given due importance in comprehensive checkup of a patient in reputed medical centers these days. It is certainly not necessary that mental disorders would lead to apparent insanity. However, there are many implicit and mild forms of insanity reflected in eccentric behavior, illusive thinking, perplexity, short temper, aggressive attitude, excessive worry, skepsis, fear, jealous, impatience, etc, which are also part of the manifestations of psychological disorders. Sentimental malice, immoral thoughts and character shake the natural harmony of the mental system. Inner inspirations try prevent the mind from such malice but the mal-effects of evil tendencies — 79 nurtured by undisciplined life-style, ego and avoidance or self-restrain, untoward habits and passion for sensual pleasure try pulling it in the opposite direction... This internal rift often gives rise to split or dual personality. Mental and emotional weaknesses and pressures of situations triggered by negative thoughts and ambitions suppress reasoning of people. Frequent excitations and tensions result in stressing the nerves and hence the whole body...; this pressure affects the sensitive and already weak organs more intensively and generates psychological as well as physiological disorders. Nature has endowed the body of every living being with marvelous self-organizing and adaptive physiological system, which, if kept undisturbed by maintaining disciplined diet and physical exercises, can automatically take care of common problems caused by minor injuries, environmental fluctuations or variations in normal routines, etc. However, as no tree could survive for long if its roots get rotten or diseased..., this system too

cannot function normally if its foundation controlled by the mind is shaken or weakened in any respect. Realizing this fact, aspirants of healthy and active life must observe the peace and harmony of mind. Piety of thoughts and morality of character are essential to achieve success in such endeavors. Control Of Physiological Activities Specific kinds of electrical impulses are continuously emitted from the human body. These signals can be recorded and analyzed with the help of appropriate sensors and signal processing devices. Characteristics of the transmitted waves can be used to measure the internal state and functioning of the body system and thus to investigate the perturbations if any in normal condition of the latter. The electrical currents transmitted through the heart are found to be most powerful. Suppression or excitation of these impulses below or above the normal level may endanger one's life.... Brain also sends varieties of electrical impulses – transmitted as neuronal signals outside the body, as per the state of mind.... These signals are found to be weaker but more complex than those emitted from the heart. The electrical waves transmitted through the muscles and skin usually have high frequency. Analysis of the prominent waveforms recorded from the body's electrical signals indicates high correlation between the recorded patterns and the patient's mental condition and the internal state of his body. Decipheration of these patterns is therefore used as a diagnostic measure. This can also be used as a means for personality test because the reflections of the internal state of mind have intimate relationship with the psychology and character of a person. Renowned psychologists Dr. J. Chemia and Dr. Barbara brown have carried out intensive research on electrical signals of human body. Their conclusions show that — not only the physiological system, rather, the level of conscious activities and vigor of mind could also be refined by appropriate conditioning of the specific electrical signals transmitted through the brain and other parts of the body. The researchers consider biofeedback technique as very effective in such experiments. They also express the view that without more rigorous study of the interrelationship between the mindbody functions and the internal and external activities, we cannot proceed much with the possibility of improving the level of one's consciousness and its impact on mental potentials. The experts of Yoga-Vidy³ know that various disciplined exercises of yoga play substantial role in controlling mind-body functions in a harmonious manner. Purity of thoughts and sentiments is a necessary pre-requisite for effectiveness of yoga s³dhan³s. Attainment of higher realms of consciousness and blissful state of deep trance is not possible without the refinement of mental domains. These demand long-term dedicated practice with sincerity and perseverance. Modern experiments show that the training of mind performed in initial phase of yoga practices can also be 80 accomplished with the help of auto-suggestive techniques of biofeedback. The effects of this technique could be visualized on-line by physical instruments whereas those of yoga exercises are experienced only internally. The biofeedback experimental setups are equipped with signal processors, which display the variations in the subject's mental and bodily electrical activities on-line. The subject can also see the reflections of his mind through the varying patterns of intensities and colors on the light bars of the Biofeedback instrument and adjust his mood accordingly. Multi-channel Physiographs connected to these instruments can simultaneously display the nature of activities in the brain, heart, other organs, muscles, skin tissues, blood and even in certain cellular subsystems. One can control these activities by pondering over the feedback and giving powerful auto-suggestions accordingly so as to improve the quality and characteristics of these signals by associated regulation of the physiological and mental functions. Dr. Elmer Green, another psychologist of high repute, argues that - as mind is the sole regulator of the body, it should be possible to control over the activities of all parts of the body at organ and cellular levels by appropriate training of the mind. Common problems like muscular stiffness or stretching and headaches caused by mental tension etc. can be easily removed with the help of biofeedback techniques. In such an experiment, the subject looks at the electromagnetic radiation of his muscles on the EMG (Electro- Myographs) and uses his willpower to 'order' his own muscles to stretch or compress accordingly in response.... Regular practice of this sort with increasing concentration and mental strength offers positive effects of the kind comparable with those of releasing tension and generating mental peace by accelerating the impulses of alpha- waves from the brain. The biofeedback principle works mainly by autosuggestion. No external help or presence of doctor or psychologist is required once the subject learns the method of adjusting the positions of electrodes on his body. Dr. Edmond Davon has successfully applied the biofeedback technique for rousing the mental alertness and determination of several physically impaired or disabled patients and thereby activating proper

functioning of their weak or disabled organs. He also believes that biofeedback method can bring immediate positive effects in eliminating the rigidity, inactivity or tension of muscles and regulating the neuro-muscular dynamics. Most people do not have any control over the functioning of the heart. But, for the experienced experts of yoga practices, it is quite natural to vary the pulse rate, heartbeat and hence the blood circulation etc, as per their will. Sincere practise of specific types of postures (mudr³s and ³sanas) and activities (kriy³s) of yoga enable them to control the nerve-muscle dynamics too. It is well known in medical sciences that irregularities of heart-beats can give rise to a varieties of cardiac problems ranging from sinus tachicardia to heart failure. Harmonizing the heart beats and blood circulation prevents such risks and also offers longevity to a great extent. Dr. Green's study of biofeedback experiments on a large number of cardiac patients showed that the subjects, having heartbeat of the order of 110 per minute, were able to gradually bring it down to the normal level of 70 per minute. This was achieved by regular practice with the help of biofeedback and autosuggestion for about 3 months. According to the researchers, the external excitations reflected in controlled exposures of red, green and some other bright colors of light illuminated on the biofeedback equipment provide psychological boost and help the subject maintain his determination and use it with greater efficiency and force. The results also revealed that exaltation of willpower correspondingly enhances one's control over the internal processes of his brain and body.... 81 Hypertension stands a top the list of most frequent and major diseases of this century. Billions of people world-over are found suffering from high blood pressure. In India alone, this number might cross 5 billion on an average. Several hundred thousands people join this class of patients every year. No medicine or Doctor can provide permanent or long-term relief for this problem without risk and restrictions. It has been classified as a psychosomatic disease, which most often arises due to mental stress and complexities, so its remedy should also be searched in the evasion of these causes. Specialists have found EKG Biofeedback as the most suitable technique from above viewpoint. In these types of methods, patient's mind is enthused by positive thinking on the one hand and his willpower is accelerated by refinement of his sentiments on the other. This technique has proved to be significantly effective in harmonizing the blood circulation and heartbeat, and in regulating the blood pressure. It is universally accepted fact today that increasing stress in day-to-day life has been the major cause of most diseases of the modern times. Every component of the body ranging from the outer layer of skin, veins, arteries, muscles and the internal system of nerves – all get adversely affected by mental stress. The exercises of Īav³sana and Īithil³sana offer instant relief from tension and induce relaxation of mind- body imbalance. However, people now a days have no patience or time to perform even these easy yog³san³s. Therefore, a hybrid technique incorporating mental strengthening and training of body with the support of external electromechanical instruments has been devised these days. Monitoring of the body- temperature with the help of autosuggestion and thermal sensors (- for constant measurements of even small variation in the former) also falls in this class of biofeedback techniques. Common complaints of headache are cured by this technique because it allows one to enhance the temperature of specific muscles or nerves and thereby increasing blood circulation in the targeted portion of the head. G.S.R. biofeedback technique similarly accounts for desired control and variation in the electrical resistance of the skin. Increased electrical resistance of skin indicates weakening of tension and stimulation of harmonized activities inside the body... Excitation or restlessness of mind is first manifested in the variation of skin resistance. Autosuggestion based meditation coupled with the electronic sensors and facilities of recording the positive effects with the help of sensitive devices constitute experimental designs for such applications. This technique is often called as 'electronic meditation' which is expected to be practised at large scale in the 21st century. Dr. Barbara Brown writes in her noted book entitle "NewpMind New Body" that transformation of mental excitation into relaxation by Biofeedback is the most significant achievements of the present era. It would indeed be a remarkable contribution of medical technology to the healthy survival of human society, if the yoga-s³dhan³s of controlling the conscious and subconscious mind be taught with the help and support of appropriate biomedical instrumentation. Restraining The Agile Mind Spiritual schools of thoughts always emphasize the need for controlling the mind. No s³dhan³ can be performed with an agile mind. But, there is no s³dhan³ that can restrain and stabilize the mind with immediate and intense effect. Practices of dhy³na - dh³rañ³ and pr³ñ³y³ma are considered to support the concentration and hence the stability of mind. However, it is too difficult to condition the mind for these kinds of

practices either. 82 To most people it appears impossible to retain the mind in single state even for few minutes. Because of its natural tendency, the mind keeps jumping like a frog from one thought to another, one feeling, ambition or imagination to altogether different state of reflections almost continuously.... There is no barrier of time or space on its movements. Even a negligible part of a second is enough for it to traverse from the earth to the moon, the sun and far beyond....; or, to enter the horizons of future directly from the domains of the present or the past.... It is naturally agile like wind. It cannot be tied up or kept confined within a limited domain. It is said that if tied up a wild deer would break its legs. In a free state, the reckless deer runs in almost frenzied state hunting for the source of the ecstatic flavor of saffron which in fact is stored in his own naval.... Human mind also keeps wandering in search of joy, bliss and peace without realizing that the root of such realizations indeed lies right within its inner cores.... Passion is a natural tendency of human mind. It likes to be in a state, which offers it soothing pleasure. Insignificant and monotonous activities do not interest it. Vibrant butterflies and humming bees keep flying in search of sweet pollen of the flower. Its fragrance attracts them and they are engrossed in collecting it from the flower as soon as they find one. Animals get trapped and even risk breaking their limbs because of their eagerness to catch an object of their liking.... The human mind too gets carried away by the fascinations and passions of one kind or the other. Unless compelled, no living being could remain confined to a single state without any change or freedom. Nobody likes captivity. No prisoner could be retained in a jail without the arrangement of strict guards, police, barracks and lockups.... As soon as a pet bird finds the cage open it flies away... Human mind is also like a bird; the unlimited expansion and gamut of natural beauty fascinates it. It wants to float freely in the gigantic ocean of ever-new imagination. It cannot be tied up with a single thought or activity or be focused steadily on any object far too long. Restraining the agility of mind offers uncountable boons. It is indeed an immortal source of immense power of consciousness. If engrossed in an activity of its interest, it can accomplish the associated tasks with magical success. The secrets of professional, artistic, scientific and even spiritual attainments lies in the focused absorbency of mind in corresponding thoughts and activities with intrinsic interest. This is the reason why a controlled mind is compared with the kalpa v—kīa. Everyone aspires to gain miraculous endowments from this 'K³madhenu' or 'Turkey Horse' but knows no ways to catch and restrain it for this purpose. Concupiscence, sensual pleasures, greed of tasty food or picnicking and funfair, and everything pertaining to bodily enjoyments and luxuries, gorgeous life style, unbeaten thirst for name, fame and power, and similar ambitions induced by ego, are predominant fascinations of human mind in general. It usually flies with the imagination and keeps planning for the fulfillment of one or the other of these vitiating desires.... As the crow sitting a top the mast of a ship floating midway in an ocean sees no goal in any direction, human mind also keeps flickering within the vicious cycle of inherent instincts unless inspired and engaged in a creative and interesting activity. The hobbies add tastes of min_ change with time and may be oriented in specific direction by dedicated endeavors. The natural trend of such changes is well known. Small children always like and insist for playing with toys... After they grow little older they like to play with the kids within their age group.... Teenage passes with ever-new dreams and enthusiasm for success in school and playgrounds etc.... Maturity of age shifts the domain of their mental interests towards earning and enjoying a married life.... Old people mostly like to listen to devotional songs and stories in a comfortable and relaxed state... The alacrity and ever-active tendency of a child's mind turns upside down in the later 83 phase of elderly age. These alterations show that interests or aptitude of mind cannot be characterized definitely. Variations in circumstantial effects and development of personality mold the inclinations and liking of human mind in a natural way. The flow of rivers and drains is oriented according to the downward slopes and obstructions on its way. The interests of human mind are also flexible and transmutable. Mind does not have a rigid character like that of a rock, rather, it is soft and fine like mud which if drenched could be molded by an expert potter into any desired form.... The eternally energized 'vehicle' of mind can be driven along any path. Changing its route is very difficult initially but proper conditioning and disciplined training - by educating creative interests and inspiring its attitude in specific manner, make it move as guided by its motivating force. The trained animals of a circus excellently perform the tasks that are not compatible with their natural tendencies and potentials. Rigorous practice, willpower and perseverance could al o transform thejaptitude, habits and interests, of human mind significantly. Wild or stray animals cannot do anything other than

what they are triggered for by their natural instincts. But, when they are captured for specific training or kept as pets, they learn to 'behave' as per their master's orders. The analogy fits well in respect of the fickle mind of humans. The inherited tendencies and samsk³ras accumulated in it since the long sequence of past births are usually dominated by desires of sensual pleasures, self-satisfying imagination, vibrant nature, etc. In the present birth too it likes to follow the familiar path and its basic instincts prompt it to enjoy despotic life.... It runs behind what fascinates it. But, human life has its own personal and social constraints.... Humans cannot have wild freedom like the animals. They have to follow certain norms and obey certain disciplines. These compulsions are not acceptable to the mind and it keeps wandering for one desire, thought and imaginary creation to another in a reckless manner. Like a thirsty deer running behind a mirage, it flies continuously in multiple directions without caring for the moral validity or reasonable justifiability of the chosen paths... It jumps like a monkey from one layer to another in the open-ended domain of its ever-growing ambitions and imaginations... A monkey does not sit on a single branch of tree for long and jumps here and there to feel new tastes of joy there and swing with new thrills.... The nature of human mind is more agile.... One has to transform its foundation – the source of its basic instincts, in order to try restraining it to get creative outputs.... The focus of attention and attraction of mind can be altered by dedication for transmuting its inner strength. Animal instincts dominate its activities because mostly its accumulated samsk³ras happen to be of the same type. Because of its first encounter with human life it remains unaware of the glory and noble purpose of this rare opportunity. It naturally finds it difficult to adjust with the strange environment.... Nevertheless, the collective efforts of refined intellect and pure sentiments, together with one's prudent reasoning and willpower inspired by the soul, can kindle the flame of nobility in it. This serene effect may be educed with the help of logical arguments, living examples of great humanbeings, rational thoughts and thereby convincing the mind about the excellence and dignity of humanity as compared to the malice of unchecked instincts. Refinement of sentiments and arousal of prudence elucidate before it the facts of how great and blissful are the endowments of moral, pure, idealistic and dutiful life... Because of the influence of extrovert attitude and lack of faith in religious preaching, the practices based on pure devotion are no longer suitable for training the minds of most people in the modern 84 age. The philosophy of pure karmayoga appears to be more appealing and effective in refining the mentality and elevating the character of masses in the present circumstances. Altruist transaction of duties towards the welfare of entire human society and healthy survival of the ecosystem of nature may be considered as the best ways of realization of God. Ascetic attitude, altruist service, compassion, and dedication to moral duties and disciplines may be regarded as manifestations of divine qualities. Adoption of such virtuous tendencies and idealism creates a soothing environment of beatitude in the inner cores of mind. Having undergone such an experience, the mind remains calm and enjoys performing every duty-bound task with sincerity and due concentration. The tiny tailor-bird weaves its nest so elegantly as if its whole life and self prestige is kept at a stake.... We should also be inspired by the high realms human dignity and complete every task in hand with interest, enthusiasm and sincerity. Practice of being faithful to our conscience and rousing compassionate sentiments of service inspires the mind the mind coherently and the latter begins to realize and adopt ideal principles of life which would be expected of a true human being – the crown of divine creations on the earth.

Tendencies Of Mind Can Be Reoriented There could be no two opinions about the immense power of human mind. Human brain too is indeed a perfect creation of the omniscient. The marvelous role of unconscious mind in auto-regulatory functions of the brain and that of the conscious and subconscious mind reflected in the active manifestations of mana, buddhi, citta, and aha³k³ra is beyond comprehension. The nature and qualities of mind shape one's personality in general. The intelligence-driven attainments in science, arts, philosophy, medicine, education etc and the spiritual realization too become possible through this orgusous medium. In ehort, humans have enjoyed the status of highest evolutionary development as compared to other creatures and made remarkable progress in every dimension of life only because of the creative power of mind. Evolution of consciousness and the system of mind is synonymous with the evolution of mankind and humanity.... The decline in the standard of mental tendencies is equivalent to vitiation of human life in all respects. The classical method of inspiring one's inner self and transforming his mentality seemed to have slow effects in the fast moving mode of life today. However, what matters is the deeper impression of learning on one's mind. Whatever be the mode of teaching and learning,

perceptions through the eyes and ears constitute the major source of knowledge acquisition. Noting that what one reads or hears has direct bearing upon his mind, speech and writing have been used as the major medium of propagation of different schools of thoughts and also for the purpose of training and orienting people's mind in specific direction. *Swādhyāya* and *satsanga* are recommended as ideal practices for the gradual refinement and culmination of the powers of human mind via reading and listening about the essence of sagacious deliberations and glorious endeavors of great personalities, saints, social reformers and altruist philosophers. Focused thinking and contemplation are integral parts of these types of training methods. With the advent of technology, varieties of audio-visual presentations have become more popular these days and are found accommodating in the over-occupied or hectic routines of people these days and especially effective for the younger generations. Neuroscientists are investigating for development of techniques which could have rapid and intense effect on human psychology and 85 which would enable drastic changes in one's attitude. If this research leads to their expected success, it may become possible for them to convert a dacoit into a saint overnight. However, in that case, the independence of one's thoughts could also be suppressed and get oriented in any direction through scientific treatments.... As discussed earlier, such developments might be welcome in psychiatric therapies. But, the disastrous risk of their misuse by handful of dictators cannot be annulled.... Neuro-hormonal chemists like Dr. Skinner assert that it is not too long when the esoteric system of endocrine glands would be understood up to a greater depth and the hormonal secretion and bioelectrical flows inside the human brain could be controlled by scientific treatments. Control over such functions of this tiny organ — of three pounds weight, consisting of about thousand billion neuronal cells — will be the most remarkable achievements of modern science. Other developments of science and technology have largely offered excellent means and comforts to the human population. The progress in transformation of one's psychology would, as per the initial confidence of the researchers, also bestow the opportunity of changing one's personality and converting him into a reflex of a divine or a devil being...! Dr. Allen Jacobson and Mark Rosenberg of Germany have conducted neuroscientific experiments to investigate whether a highly evolved brain could be transformed into a primitive one? Or, could the potentials of intellectually developed minds be transmitted into the brains of mentally weaker ones and uplift the latter intelligence too? Since its advent, the system of education has been based on the method of teaching in which a more experienced and learned person guides, teaches and trains the illiterates or less educated ones. A noble teacher has the capability to rouse the intellectual level of his students. The ancient as well as the modern institutions of learning have regarded teaching as the best method of transmission of knowledge and of intellectual civilization. The Ayurvedic system of medicine recommends herbs like *Br̥hm̥*, *Āmal̥*, *Ītvar̥*, *Aīvagandh̥*, *Sarpagandh̥*, etc. for enhancing the grasping power, alacrity and memory and enhancing the strength of brain. In the allopathic system, several brain tonics have been synthesized from chemicals and tried out in experiments on neuro-hormonal secretions too. It has been found that the synthetic drugs provide support for short duration only; these are prohibited from long-term use because of harmful side effects on the nervous system. The modern experiments on transfusion of hormones from one brain into another have not been successful so far. Moreover, these have often caused lethal reactions. Adept analysis of the known functions of the brain has shown three major components of active brain – one, which governs the motor and sensing activities; second, which controls auto-regulatory activities of respiration, metabolism etc; and the third and the most important part, which pertains to the mental and intellectual functions. It is the evolution of the latter that is associated with mental and intellectual development of the human beings. Other activities of the brain are almost automatic and are transacted in different living beings in different forms as per the nature of their gross bodies. The physical structure of brain has evolved according to the anatomy of the organism. The brains of some creatures are tinier than the tip of a pin while some others have huge and heavy brains. Whale's brain is bigger than that of a man – after all, the controlling device of such a huge body has to be large and stout too! But, the units of the intellectual functions of this huge brain are in primitive state as compared to that of the intelligent beings – the humans. 86 Dr. Vividson and Dr. Velekov, zoologist and psychologist respectively by profession, consider that the possibility of mental development largely depends on the duration and level of contact and interaction of the less evolved ones with those endowed with greater mental potentials. The example of trained animals of a circus fits well in support of these assertions. It has

been found that the mental and sentimental development of these animals is highly dependent on their master's nature. Influence of the latter's company for longtime makes their sensitivity and responsive behavior resemble his emotional and mental tendencies. The elephants and horses in the artilleries of a state used to understand the language and gestures of their kings and army generals. The kings used to easily commended even wildly frenzied elephants because of their affectionate influence on the pet animals' psychology. The horses of Rana Pratap, Rani Laxmibai and Napoleon Bonnapart are popular in History because they were not only obedient to follow the commands of their brave masters but also used to understand the latter's sentiments and behave accordingly. It appears to be the influence of the impressive personalities and strong willpower of these intrepid kings, which had inspired such potentials in their horses. It is said that brain continuously emits impulses of consciousness, which spread like a subtle fragrance and influences all living beings in the surrounding atmosphere. The intensity and expansion of the domain of attraction of this 'bio-magnetic' force depends upon the level of one's personality. It is more powerful in case of mentally strong and intellectually elevated impressive personalities. If these currents of consciousness are transmitted towards somebody, the latter, unless his own aura of mental and spiritual influence is more powerful, is certainly inspired and affected as per the nature of the stronger intellectual and emotional impulses. Gradual transmutation of the potentials of the unwise or dull minds is certain to occur, though at a slow pace, if the latter consistently live in the trenchant company of the mentally strong, serene and sagacious personalities for a long duration of time.... In the experiments on sending electrical signals to brain, electrodes and transducers are required to be attached to the brain of the subject. With the advancement of radiation biochemistry, efforts are on to use special kinds of radioisotopes. These, if injected or supplied orally into the blood stream of the subject, would make the blood serve as an aerial or transducer to receive the electrical signals without any external electrode or transductive device. The 'charged' blood when supplied to the brain would transmit corresponding signal and accordingly affect the bio-electrical activities there. This in other words would mean that, with the help of these developments scientists and doctors would be able to reorient one's thinking and control one's mental and intellectual potentials by supplying specific kind of 'radio-processed' or 'electrified blood' into his brain..... Just imagine! The materialization of above possibilities would enable the concerned scientists have a remote control over the minds of the masses with the help of micro-subtler waves as they do at present to regulate the functions of space crafts from their laboratories on the earth. This will practically convert human brains into receivers of radio signals and virtually lead to transforming the human population into that of robots. Modern research on the metaphysical and psychological front has attempted scientific investigations into the possibilities of telepathy - communication between two distant individuals without the help of any radio device or wireless etc. A research group under the guidance of Dr. Rhine at the Duke University, North Carolina and Dr. Whittley and associates at the Cambridge University have independently conducted series of experiments on these aspects of mental power. They have found that, to some extent, the power of communication via the waves of consciousness is present in everybody. Howbeit, only those possessing exalted levels of pr³ñā and mental and spiritual strength 87 are more successful in telepathy. In some people it is aroused since birth while some elevate it by dedicated practices with mental concentration. It has been observed that strong emotional and affectionate linkage also makes it possible for two individuals to transmit or receive each other's messages without any external medium of communication. The ancient scholars of spirituality had made a break-through and remarkable progress in using subtle powers of mind for telepathy. The scriptures also describe of the trend-setting influences of spiritually culminated personalities in shaping the course of events during their lifetimes.... God Shri Ram had inspired ordinary monkeys and apes with such a divine force that these animals could dedicate themselves to a noble cause, which, in worldly terms was no less than risking life for others' welfare.... They indeed made unparalleled contribution in the victory of good over evils and became immortal in history. In order to eradicate the roots of devil emperors from the world, Lord Krishna laid the foundation of Mabh³rata and stimulated the minds of Pañ³āvas by his supernatural mental power. The blissful impulses of his afflatus which use to churn the sentiments of the Gopies and the righteous direction of thoughts and immense courage generated in Arjuna's mind by his supreme intellect are most popular chapters in every scripture on Krishna. Relatively later periods of history have also witnessed the influence of the mental and spiritual energies of some

great personalities. Gautam Buddha's powerful thought-waves charged millions of people and drew them towards the path of penance leaving all luxuries and comforts of life... Hazarat Mohammed, Jesus Christ, and Zoroastrian, etc were able to transform the mentality of masses and make them follow a religious life by divine influence. Not all of the priests or religious leaders and social reformers, despite their eloquence, scholarly achievements and charitable activities, can influence the audience or reorient the attitudes of devotees as much as the spiritual saints could do. It is the level of spiritually refined emotional consciousness and the inner strength of mind and character which along with noble deeds makes the preaching lively and effective in real sense. Spiritual charge of the presence of N³rada was so powerful that even few words of his advice could illuminate the lives of V³lmik^o, Dhruva, Prahl³da, Sukany³, etc with the glow of righteous devotion and thereby aroused them up to the levels of absolute saints. This transmutation had bestowed the divine blessings on those devotees forever... The great spiritual saints of the modern era like — Samarth Gur^ç Ramdas, Swami Ram Krishna Paramhans, Swami Vivekanand, Gur^ç Govind Singh, Swami Dayanand Saraswati, and Sant Kabir, had also inspired thousands of people in their life times. Thus, they had offered invaluable help to the excellence of life and culmination of the pure ideals of humanity. Their lives and gospels continue to guide millions of people even today.... It was the spiritual influence of the Mah³tm³ existing in Gandhiji, which attracted the masses from all walks of Indian society to sacrifice their lives in the freedom movement.... Īaktip³ta is a process of transmission of spiritual energy in which the bio-electrical impulses of pr³ña emanated from the spiritually stronger person enter the brains of the deserving devotees and charge the latter with terrific mental potentials and vital energy in a matter of few seconds. The examples of conversion of iron into gold by touch of the p³ras stone or that of kindling thousand lamps from one — are often cited to illustrate the intense effects of such transformations. The modern scientific research on orientation and external control of mind may also incorporate reinvestigations into the scientific basis of emotional influences, and spiritual transmissions and transmutations.... The collective efforts of the neuroscientists and spiritual experts should take care that the developments in this regard would be used only for the purpose of treatment of psychiatric 88 problems. And, only the great personalities dedicated to the altruist service of mankind would be allowed to control the psychological applications concerning change of one's attitude or specific orientation of one's thoughts and sentiments... Progressive Refinement Of Ideology Children like to float in the imaginary world of fairy tales.... Depiction of imaginary characters like ghosts or supermen and tales of animal world interest them a lot. They do not have thoughts but only imaginations.... Unstable or unreasoned thoughts are often driven by illusive imaginations and they fly like dry leaves or sand particles in the stormy winds of dreamy reflections. They might keep one's mind occupied whole day but in vain. The popular anecdote of Sheikhchilli nicely illustrates the voids of arbitrary imagination and daydreaming: This character loses what all he has in hand and faces scornful laughter of others due to his over-ambitious plans based on unmindful imaginations in hypothetical dream land.... Many a times people fly high with future plans and hastily resolve to do several things in a state of emotional excitation without taking note of reality. Their unreasoned attempts generally lead nowhere despite wastage of time, energy and resources. Failure and disappointment coupled with loss of their selfconfidence and authenticity in the eyes of others – are the usual outcomes of such projects. Accidie and tendencies of negligence or indifference driven by dullness are manifestations of another kind of negative mentality, which triggers a self-imposed hindrance on one's progress. People used to unnecessary prolongation of work remain self-satisfied in their inactive state and never feel the need to improve.... they are virtually lethargic about every aspect of progress in life. Somehow passing the days and running the daily chores as forced by circumstances seems to be the essence of their survival. Human population has plenty of such idiots or mindless lazy buggers who are humans only by virtue of their body. Humans by nature are supposed to strife for betterment....; struggle for liberation from suppressions and from the deprived and downtrodden status of life.... The boon of mind has been bestowed on human beings so that they could aspire, reason, plan and endeavor for self-development and all round progress. Nonchalant attitude and extreme inactivity or dullness appears to be a psychological deficiency, which could be a result of long-term effects of oppression, negative thinking and mental complications.... Thoughts are some kind of impulsive actions and reactions of the mental system. All the components inside the body – at the molecular, cellular or organ level, continuously remain

active. Externally, the sense organs too are always busy in actions and perceptions of one kind or the other. The conscious system of mind in normal case remains constantly active throughout one's lifetime and its activity is what gives rise to the thought process.... Thoughts could be meaningful, sound, creative, or, could as well be futile or baseless on the other hand..... They could be derived from sound reasoning and logic or could be vague responses or arbitrary reactions of agile mind. Positive thoughts could lead to creative outcomes while negative or immoral thoughts could invite decline and fall of one's character and even nurture misdeeds in the society as a whole. The extreme levels of thoughts of either kind are usually intensive and induce specific streams of power which vibrate the setup of mind and manifest what is termed as the thought power. Progress in any dimension of life proceeds with the consistent support of suitable thoughts. Cultivation of virtuous or destructive talents both depend on the nature of thoughts. 89 The intellect of an individual is free to decide its own ways. If maligned by ego and greed, it chooses to follow the path of instant benefits without bothering about fairness and purity of means or caring for untoward consequences. Atrocious personalities, extremists, criminals and those afflicted to evil addictions and passions usually fall prey to this malice of intellect. The 'benefits' of immediate success lure the immoral tendencies of intellect and suppress the reasoning about fall-outs like — loss of authenticity and strength of character and possibility of closing the doors for bright and happy future. Birds and fishes get trapped in the net due to similar tendencies of impatience and shortsighted greed and loose their lives as a consequence. Many so called learned and matured people are also pulled along an unethical path because of the dominance of passion and force of the associated illusive or untoward thoughts. They do not have time and patience to think about the glory of morality and ecstatic possibilities of progress along the righteous path. This irony may be termed as 'folly of wise'.... This downfall is equivalent to the mindless act of burning hands in a careless play of crackers or fireworks. The inner faith and convictions of an individual transcendently shape his intellectual development and cultivation of talents. Gravitation of faith on a righteous or on an immoral ideology and the way of life and orientation of convictions towards good or bad characteristics educe certain power of determination. This has the potential to drive the intellect and conscious thinking in the corresponding direction and accordingly get anything, howsoever good or bad, done from the concerned individual. Smugglers, dacoits, hoodlums and tyrant culprits are usually endowed with tremendous courage and talents motivated by immoral and negative sentiments, desires and faith. Their determination too is very strong. Otherwise, they would be pulled back by the natural voice of humane sentiments and thoughts. Unless the driving force of greedy attitude or negative pressure of wrong convictions is too strong, they would remain in a state of dilemma or perplexity about the pros and cons of their actions. These types of destructive courage, strength or talents are also illustrative of the immense potentials of mental tendencies. The brighter stream of mental strength, intellectual potentials and talents emanates from high ideals and faith in the eternal dignity of humanity. Adoption of moral idealism with inner faith edifies one's aspirations and thoughts and inspires evolution of consciousness. Mind is educed accordingly and motivated to follow the path of excelsior. The life histories of great personalities — whose ideologies and deeds were closed to the absolute truth and glory of humanity, offer constant guidance and encouragement to such awaken minds. Individuals inspired by righteous intellect rise high along this noble path of progress and also benefit from continuous refinement of their talents and personality..... The activities and life of most people remain confined in one way or the other to protection of health and expansion of wealth and power. People are also generally attentive of preventing wastage or loss of their materialistic resources and potentials. The efforts to enhance the prosperity and to prevent losses depend upon one's attitude, abilities and circumstances. However, in one form or the other, the focus of all activities of life pertains to the materialistic or perceptible aspects only. The most important issue of channeling the invaluable resources of time and thoughts largely remains unnoticed. The loss or wastage of either of these 'invisible' resources is more deteriorating than diminishing of prosperity or any other worldly loss. Among the two, use or misuse of the power of thinking has predominant effects. Disorder or perversion of thoughts leads to whimsical, immoral and abnormal behaviors. 90 Ignorance or indifferent attitude towards continuous improvement in the quality and sagacity of thoughts and neglect of prevention of this 'eternal power' appears to be the major cause of the stagnation of progress or the backward status of life in larger part of the human population. Even intellectually bright and active

people sometimes do not care about what transformation in their attitude and way of thinking is required to enlighten their future with better possibilities of overall progress and culmination of their lives. Most people do not bother to note what minor changes in their thought process would mold their personality towards better performance and achievements. They do not know which direction to focus the thoughts and how to reorient them creatively for specific purposes. Seed is the fundamental cause and tree is its manifestation.... Optimistic and courageous attitude and progressive and reasoned thoughts are the seeds which sprout creative enthusiasm and boost one to endeavor for the shaping of a happier, brighter and excelling future. Realization of this fact and consequent endeavors to sublimate transformation and amelioration of thoughts lays the foundation of productive and glorious future. Reflections Of Mind In The Mirror Of World Feelings of cheerfulness, enjoyment, dejection or gloom largely depend upon the state of our mind and its emotional makeup. Same effect is reflected in our impression of an object or person as beautiful, ..., unpleasant or abominable,, etc. All the material or abstract objects are inanimate, they have varieties of shapes, colors, properties and names but no consciousness. Despite having a tangible existence in the world, matter by itself does not possess any potential to interact with people or express its 'sentimental' reactions.... It is our own conviction or conditioning of mind which labels something as good or bad, soothing or irritating, suitable or useless etc. Things in one's own possession often appear to him as beautiful and precious whereas many other objects could be regarded by him as unnecessary or distressful.... The illusive impressions created by our own mood, our own tendencies and convictions project someone or something as good or bad for us. Although, everything created by the almighty has its own specificity, it is typical of human nature that creates false impressions about them as per its variable tendencies. A person gets attracted towards something, makes intimate relationship with it or attaches affection or distaste on it, as per his liking and mental impressions. Mother Nature creates nothing as precious or abominable in this world. Everything existing in the universe is part of the supreme creation and has its specific importance. The same is true about the existence of humans too. However, humans have a choice to adopt any attitude towards life, towards the world, towards everything at any time.... and have perceptions and consideration of 'facts' accordingly. Change of attitude changes the impressions of mind and its perception of the world around. Change of attitude can, in no time, transform the feelings of distress and animosity into the soothing sentiments of joy and love.... The reactions and impressions of our mind are naturally reflected on our face - especially our eyes. The expressions of face project, like a mirror, the current state of one's mind. Eyes instantly convey the message of heart as an automatic process. Just by looking at one's face we can make out whether he or she is happy, angry, disappointed, sad, or at pains.... Whether one likes or hates something or what one feels about someone is easily seen in his eyes. 91 Psychologists read and analyze the expressions of the eyes and face and specific movements of limb, sitting posture, etc to infer the subject's mental status. They consider the intimacy of the body and mind as the source of diagnosis of any disorder in either by the specific reactions and responses reflected through the other.... The dissatisfaction and agonies pervading in the human society today largely appear to be imposed by people's false convictions and maligned attitude. The complications of negative or disorderly attitude often put the mind under unnecessary stress and tensions. These effects are reflected on the face too and despite having good physical health and appearance one looks repulsive. Invidious thoughts and sentiments give cruel or indignant expressions on the face too. Even if one tries to show humility and puts a virtual mask of cosmetics or artificial expressions, his crippled lips, stretched eyebrows and the hardened muscles of his face open up the secret of his internal strife, restlessness and disturbed notions. The feelings of envy, hatred, fury, abomination etc. excite the mental vibrations and disturb the natural harmony of thought process and emotions too. This state of mind is prone to untoward thinking and illusions. Stable and calm state of mind on the contrary helps deep thinking and contemplation. In such condition of mind, the flow of thoughts and sentiments is inspired by ecstatic impulses of the inner cores of consciousness. Whatever falls within the domain of serene thoughts and soothing sentiments is embraced by the compassion of pure mind and therefore appears to be pleasant and affectionate. One feels unique bliss and peace of mind in such state. The nervous system and neuronal machinery of brain too get relaxed in this state; the scattering and dispersion of mental powers is controlled and malice of negative thoughts and emotions diminishes. The gamut of conscious powers then gets focused onto its origin and recharges the mind and body with

immense energy. Pure mind, in a state free from the malice and stresses of — jealousy, animosity, wrath, eroticism, anxiety, worries, selfish attitude, etc, can focus its unlimited strength on the innermost center of consciousness. In such a serene state couple with piety of sentiments it can link itself with the cosmic consciousness to be blessed by the nectar of divine bliss and eternal love.... Attainment of this state purifies the thoughts and sentiments and also brings sublime transformation of the overall personality. It transmutes the inner self into a source of divine inspirations and culminates the individual self up to divine heights. As awakened souls, we should endeavor change our attitude to see the good that dwells in everything of the world, everywhere in the universe. This would rouse the eternal flow of compassion and pure love and every object, every individual, every event would begin to appear before us as pleasant, affectionate and part of our own expanded existence. Inculcation of positive feelings orients the thought process too in the righteous direction and supports attainments of the above state of beatitude....

Amelioration Of Sentiments Too Human entity basically exists as an ensemble of sentiments. God has arranged for its manifestation by endowing it with a marvelous brain and gross body – made up of the five basic elements (panca tatva). The caliber of one's thoughts and hence of his character and deeds depends upon the nature of his sentiments and emotions. Eminence and purity of sentiments is reflected in the excellence of behavior and virtues, which open up the path of progress and escalation in every aspect of life. 92 Malice of sentimental core on the contrary proves to be bathotic because of its debauching influence on personality. Aristotle had mentioned that – emotions control the activities of mind and body like a mighty master governs his enslaved employees or servants. Refinement of sentiments and thoughts ensures protection of physiological and mental well being. But, disruption or perversion of this serenity and harmony results in varieties of diseases and mental problems. These views of the great thinker of 200 BC have been confirmed and re-emphasized with a difference of terminology by the modern researchers of Psychology and Psychiatry too. Professor Powell Simonov of the Soviet Academy of Sciences has identified two classes of emotions - positive and negative. Feelings pertaining to hope, enthusiasm, confidence, love, courage, cheerfulness etc fall in the first category, which induces favorable effects on the mind and body. The waves of negative sentiments associated with anxiety, despair, tension anger, envy, concupiscence etc cause stress and excitation of varying degrees in the brain and disrupt the mental and physiological health. One has the choice to mold the shape of his emotional makeup as per his intrinsic faith, convictions, desires and overall attitude towards life. Disorder of emotional harmony is as pernicious to the health of the body and to the strength of personality, as the existence of termites in wood. It gradually ruins one's life.... Even the so called positive sentiments, could cause negative effects on the healthy survival of social harmony if they encourage egoistic tendencies, materialistic possession and selfishness. Serene sentiments impregnated with the purity of a child's inner self on the other hand always inspire love, compassion and co-operation in everybody's heart and bridge the diversities in human society. Eminent philosophers of all ages have described human being as originally endowed with pure and sublime sentiments. Howbeit, the transformations of attitudes, declining value-system and artificial mode of life has maligned the serenity of people's sentiments today. The pollution in external and internal environment of life are offshoots of these man-made hazards. Weakening of the edifice of human sentiments has invited varieties of sufferings including psychosomatic disorders and diseases... at the personal level along with mistrust and mutual strife on the social front. According to the adept scholars of Human Psychology, narrow-mindedness or selfish sentiments diminish the strength of personality at physical, mental as well as at spiritual levels. Egotist, selfseeking people are therefore more prone to psychosomatic disorders and often suffer untimely death as a result of self-imposed tensions and complications. One who has broadened the domain of emotions – far beyond the peripheries of selfish motives and desires, is more likely to enjoy healthy and progressive life with successive evolution of his inner strength. People's love and respect and divine blessings are naturally bestowed on such altruist, serene and industrious personalities. Malice of sentiments and attitude result in corresponding negative effects. Without inculcating purity of inner self and refinement of sentiments and thoughts, one cannot expect to serve towards the welfare of society; even his own life can not gain anything worth the dignity of humanity. Clever and selfish mind may bring materialistic success at superficial level of life but the soul of such a person continues to pinch his inner self against his misdeeds and eventually eliminates all peace and 93 happiness from his heart..... Even in the external domains of life such people

hardly enjoy true respect and affection of anybody. The social system by and large disapproves their self-centered possessive attitude and they end up facing envy and scorn of most of the people in contact.... Renowned psychiatrist Dr. H. F. Dunbar emphasizes the importance of generous attitude, altruist sentiments and discerning thoughts inspired by goodwill in maintaining healthy body and mind. According to him, joyous tendencies and humorous temperament ensure good health in general. The glow of the face and the brilliance of eyes of the people endowed with pure sentiments and righteous attitude reflects high level of their vitality. The (bio)magnetism of their personality can easily attract and impress other persons. Malice and complicity of sentiments amounts to wastage of vital power in striving for mental harmony and depletes the desires of escalation of life. This consequently suppresses all enthusiasm and gives rise to aboulia. External medicines and other remedial practices might offer temporary support in improving the disorderly, dejected, or depressed state of mind and lack of liveliness.... But, substantial positive and viable effects could be attained only by refinement of the sentimental and emotional domains. Channeling pure sentiments in the light of prudence accelerates the elevation of physical and mental status and spiritual developments. *Spiritual Healing - New Frontiers Of Therapeutic Developments* In the holy G^ot³ Lord Krishna describes the human body as analogous to a chariot having the sense organs as the horses, mind as the groom and the soul as the master. The relationship of body and mind is similar to that of a governed and a ruler – the activities of the body run as per the instructions of the mind. The human mind, like a groom, accelerates and controls the movements of the ‘horses’ of sense organs – the desires of mind are manifested in those of the senses.... No external or internal activity of the body can be directed against the will of the mind. The autoregulated functions such as, blood circulation, respiration, muscular movements, perspiration, excretion, sleeping, dreaming, etc are governed by the unconscious mind through appropriate processing in the brain. The conscious mind shapes the behavioral and perceptive transactions of the senses and associated activities of the body.... Thus, mind appears to be the sole ruler of the ‘estate’ of the body. Disorders and deficiencies in the normal activities of the body most likely have their roots in the perturbed state of malfunctioning of the mind. In a democratic state, the subversion of social harmony, decline of economic system or hardships of public life may not be blamed over to the discrepancies in the government machinery and policies alone because several other factors — such as, anti-social elements, public indiscipline, etc also play significant role there. However, that is not the case with the living system of the body. Mind happens to be the predominant controller and chief manager of the vast estate of the body. No component or processing inside the body could disobey its will and instructions. Thus, it sounds reasonable to seek the root of psychosomatic disorders and diseases in the patient’s psychology. Trends in modern medical sciences seem to have concordance with these conclusions of the ancient sciences.... Dr. Robert D. Roy, reputed psychologist and psychiatrist of America has surveyed large number of cases of incurable diseases. His analysis has revealed that majority of these diseases were results of 94 the complications, complexities, excessive worries or malice prevailing in the patient’s mind. He considers that intricate diseases are manifestations of instability and deformation on the psychological front. Dr. Daniel Kapok of Canada is also an expert in Human Psychology and Psychiatry. He opines that even simple diseases like common cold sometimes continue to persist in spite of best medical treatments. The reason for such occurrences is straight - some disturbances in the harmonious functioning of the mind. The germs or viruses of common cold are quite different from those of other infectious diseases. The immune system naturally develops sufficient antibody repertoire to fight against the antigenic effects of Polio, Smallpox etc. This is how the likelihood of recurrence is annulled in these cases and remedies of vaccination are also effective in prevention of such diseases. However, immunity does not work on common cold. Sometimes it recurs frequently and becomes chronic. People often develop resistance against the medicines for common cold. They might suffer from it for long time due to lack of effective treatment. Many experts of medicine too accept it that basically there is not direct cure for common cold. It is also defined as some kind of allergic reaction or manifestation of disorder in the state of mind. Realization of the crucial impact of mental functions on health, and examination and treatment of patient’s psychological features is given due importance along with medical, pathological and other investigations in good hospitals now a days. Medical practices of psychiatric physicians are gaining increasing support in the developed countries and big cities where people are more health-conscious. The psycho-physiological methods offer

comprehensive treatment and are therefore found more successful in treatment of otherwise incurable diseases too. Looking at the current population growth, it appears that these modes of integrated approach might replace some of the established systems of therapies in future. Another stream of therapies working directly on the vital power of mind is Spiritual Healing, which has promising role to play in noninvasive treatment without the help of medicines or external devices. Dr. Harry Edwards has presented several methods and principles of spiritual healing in his book entitled "Truth about Spiritual Healing". He has also discussed quite a few cases that were declared 'incurable' by the medical specialists but were successfully treated by spiritual healing. Mr. Manoharlal Kudalkar of Bombay was suffering from severe sutrañ roga. In spite of trying out varieties of systematic treatments for long time, his problem advanced rather than showing any signs of improvement. The spiritual healing provided by Dr. Edwards offered him total relief from this disease in about 3 to 4 months. More remarkable was the case of Elizabeth Wilson of London. Some time in 1909 when she was only three years old, Elizabeth suffered pain in the spinal cord. It was so severe that she was kept bed ridden straight on the back for the whole year and treated with heavy doses of medicines. Unfortunately the trouble, instead of subsiding, continued to grow more severe. By the age of fourteen years, she was unable to bear the pain and could not even walk... This lady remained practically handicapped till the age of thirty. She had tried varieties of therapies popular at that time, but all her doctors finally gave up and declared her disease as incurable. Around 1940 her parents heard about Dr. Harry Edwards. Like a miracle, she became all right after undergoing the latter's spiritual healing cure only for few weeks! William Olson, also of London, was suffering from prolapsed disk. X-rays showed it as a serious problem. No surgery was feasible. He tried out many medicines and remedial techniques but in the 95 vain. Within few days of spiritual healing in Dr. Edward's hospital, Olson became walking without the plaster jacket on his waist. Few weeks later, he was relieved of the problem completely. In the later years of life, he also traveled over 16000 kilometers in a single without any pain or difficulty. In the above cited book, Dr. Edwards has elucidated spiritual healing as a perfect method which works on eternal principles whose outcome can be scientifically verified. He argues – "Orange, like any other fruit is good; that is why it grows and blossoms in nature. If a piece of orange is found in bad condition and taste, that does not mean that the purpose of its origin has gone ill or the process of its growth itself has gone wrong.... The bad piece is a diseased or damaged fruit, which is not its original form. Any kind of deficiency or disorder in any product of nature occurs, either due to abnormality inherent since the time of its birth or caused by external effects during further development. In other words, nature by itself does not commit any mistake – no system, object or living being could be naturally diseased or bad. There is always a cause other than the natural tendency of an entity which disrupts its original properties; and if the cause is not natural, it should always be possible to remove it and bring the system back the natural form and condition during the latter's life time...." Dr. Edwards also cites the example of the human system to illustrate its conditioning: "Human body and mind, like the fruit of orange could also be subjected to internal weaknesses or external influences. For proper nourishment and prevention of the possibility of downfall and damage, the connection between the fruit and the branch on which it grows should be strong. The linkage, which connects a human being with its eternal origin also needs to be kept alive and continuously strengthened for healthy survival of the former. Ideal maintenance of this linkage is the key to the sustenance of healthy functioning of the body and mind. Health means natural or normal state of existence. Disease, by definition, reflects a deviation from the naturally normal conditions. Cure of a disease means bringing the original natural system back in its normal state. This can be and should be achieved by appropriate remedies to eliminate the causes of disturbance and counter the unnatural transformations elicited by them." According to Dr. Edwards, the fundamental objective of any attempt on revival and maintenance of health should be focussed at connecting the individual being with its origin – the perennial universal source of vital power. What is the use of a radio set without electrical power supply? Human body and mind too cannot function without continuous supply of vital energy and spiritual force. The methods of Spiritual Healing indeed aim at harmonizing this supply by re-linking the patient's consciousness with its eternal origin.... Modern methods of treatment – especially Allopathy is based on considering human entity as specific ensemble of biochemical and physiological combinations and processing in a physical system. Here, the cause of any disease is searched in possible variations or transformations in the associated elements or reactions at the organ,

cellular or molecular levels. Drug therapies, non-invasive techniques, surgical operations etc are aimed at controlling the identified (if any) disturbances of these sorts in the functioning of the body - including the brain as an organ in it. The effects of such treatments do balance proper reactions and set the biochemical, bio-electrical and physiological functioning of the interconnected sub-systems in the body well in order in many cases but do not annul the possibilities of recurrence or adverse side effects..... Such approaches and therapies, as described by Dr. Edwards, do not achieve the fundamental principle of health. As discussed by erudite experts and successful doctors like Harry Edwards, total and viable health can be attained naturally by having proper linkage of a living being with its source of life... The origin of life resides in the Eternal Cosmic Spiritual Force.... The processes of spiritual healing establish 96 and strengthen the patient's linkage with this Supreme source of life and therefore easily treat complex diseases permanently. Apart from diminishing the declared 'incurable' disorders and diseases, the instances of offering eyesight to the blinds, voice to the mutes (including born blind and dumb)... etc are also achieved by this therapy. The effects of spiritual healing appear miraculous. However, Dr. Edwards sees no surprise in such treatments. He argues that - something is astonishing if it occurs in a supernatural manner or appears to have taken place due to some esoteric reasons. But, spiritual healing works on well-explained and logical principles. In his words, "every phenomena has a reason of occurrence and every process, every kind of transformation in the natural state of system requires some power.... Spiritual Healing makes use of the vital energy, which cannot be measured by physical instruments nor can it be described in the terminology of matter based sciences. Its effects and mode of functioning appear to be mysterious or astonishing to most people mainly because of their inability to sense the subtle world beyond the three dimensional expansion perceived by their sense organs." As the description of color has no meaning for a born blind, understanding the mode of spiritual healing is not possible for people unless they have experienced the existence of vital force in themselves or realized the spiritual domains of life in the inner self.... Special kinds of knowledge, training, acumen and experiences are required for mastering any branch of science or practising any mode of therapies. The same is true in case of spiritual sciences too. With the dedicated efforts and inspirations of experts like Dr. Harry Edwards, several therapeutic centers for Natural and Spiritual Healing have been established around the world. This therapy has now received recognition and favorable response everywhere because of the successful treatment of thousands of complicated and otherwise incurable disease in the past three to four decades. As mentioned earlier, mind is the principal regulator and conductor of the brain and body functions. Psychologists consider it as the omnipotent ruler of the body. The Indian Philosophy however, regards mind as an envoy of the soul, which has been appointed by the latter to govern the functions of life. Thus, it is the lack or abundance of spiritual power that is the basic cause respectively of deficient or perfect maintenance of healthy activity, harmony and strength of the mind and the body as a whole. That Supreme Power of the eternal consciousness (of Brah³) can create the cosmos by a single solemn; it can create, transform and destroy Nature.... It is impossible that linkage with this Omnipotent eternal source of life would not result in ideal maintenance of health at physical, mental and spiritual levels. Unlimited boons of systematic use of the spiritual power and vital energy bestowed by this infinite source are results of a subtle process, which is as scientific as the bio-electrical reactions. Though belated, the truth behind these principles of ancient sciences has been realized in the modern age and hence, spiritual healing - under different names, such as Reiki, Pr³ñika etc., is gradually becoming an effective mode of alternate and preventive medicine. Sublimation Of Spiritual Element – Ultimate Goal Of Life Of the five basic elements (panca tatvas), p—athvi, jala, vayu and agni constitute the gross body. The subtle element of ³k³ia has a latent but most important role to play in manifestation of life. This element exists in harmony with the spiritual element of life and has direct linkage with the soul. It is 97 reflected in the refined levels of pr³ña and is regarded sacred and eternal. In scientific terminology, the etheric element pervaded in the universe corresponds to 'physical' manifestation of ³k³ia. Scientists researching on subtle aspects of cosmos agree with the metaphysical concepts that ether is an energetic glow of the an eternal expression of existence. Revered philosopher of all sciences, Aristotle, describes this as a reflection of omnipresent consciousness. What and where is the origin of life? How to decipher its existence? Scientific quests for these remain unanswered till date. However, some researchers have been able to elucidate the nature of universal elements present everywhere in the space and to conceptualize the existence of etheric element as well. It is now

believed that this subtle element – the akāśa tatva has direct effect on enhancing the vital energy. Every form of matter existing in nature is constituted by different molecular, atomic, subatomic and even smaller components having different structures and physicochemical properties. The substance of human-body is also constituted by such elements. The universal laws of nature are therefore applicable to the human body too. The micro-atomic aura of particles inside the body continuously emits its specific energy waves within and outside it. According to Dr. J. C. Trusts' principle of atomic aura, the subtle particles spread in the cosmos would also emit unperturbed vibrations which accelerate vital energy supply in living beings. The intensity of such effects is high in humans as compared to other organisms. A person can extract maximum vital power from this eternal source by purifying and harmonizing his own system of life. The so-called fine cosmic elements hypothesized above are also considered to be present in the inner cores of human self. The domain of these subtle elements in the body has been identified as neuro space. In her book entitled "The Secrets of Atomic Age", Vera Stanley Edler mentions that ageless wisdom exists in this region. This core of the inner self is attributed as the source for spiritual realizations. Cosmic counterpart of this domain is referred in the scriptures as the divine world where life exists in an ageless form. Linking consciousness with this layer of the deepest core of mind takes one into the time less experience of absolute bliss.... Maharshi Kañda, who is cited as the most ancient scientist of atomic properties, has conveyed in his Vaiñika Darāna that this world is made up of tiny particles (atoms and subtler particles).... The description of the five basic elements is a gross classification of what constitutes the jañā (material) and cetan (conscious) components of nature. At the root of all creations...., all activities of nature, there lies the subtlest form of eternally energized 'particles' which are called fine cosmic particles in modern theories. The Indian science of yoga was developed by the —īies in the immemorial times to enable its researchers (s³dhakas) decipher the physico-chemical properties, basic nature and origin of all jañā elements existing in this world and also realize the eternal source and diverse manifestations of the cetan. A true yogi – ardent s³dhaka and expert of this ancient science makes best use of his mind, body and worldly resources and lives an ideal life. He attains complete beatitude and absolute liberation (mokā) after death. A human being is born with the unique potential of thinking, which makes him different from other evolved animals. Talking in terms of fine cosmic particles, the evil tendencies of a person are said as constituted by the so termed 'dark particles' and the virtuous character by the 'bright particles' of this ensemble. A human entity is a combination of both born with a potential of further evolution of either.... Further evolution of thoughts and associated transmutation of sentiments should therefore define the natural goal of his life.... 98 The soul of a human being consists of divinely pure, eternally illuminated fine cosmic particles, which are called divine atoms in the language of spiritual sciences. Transmutation of thoughts inspired by refined sentiments activates the aura of these latent particles and reflects the eternal purity of the soul in one's character. The gamut of spiritual practices – including yoga s³dhan³s, up³san³, dhy³na - dh³rafl6ñ³, etc aim at diminishing the strength and effects of the 'dark particles'. These are focused at enhancing and edifying the 'bright particles' in the body and mind and thereby activating sublime transformation of the j^ov³tm³ (individual self) in high realms of divinity. Dedicated endeavor to improve the attitude, quality of thoughts and sentiments accelerates the growth of the 'bright elements' in the body and mind. Creative implementation of this refinement, in the character, behavior and deeds generates the inner environment for the clear reflection of the glow of the divine particles.... On the contrary, adoption of artificial life style and malice of thoughts and character weaken the force of compassion and human sentiments and gradually cover the afflatus, the inner inspirations of the soul by a thick layer of the 'dull (dark) particles'. The negative influence of the latter results in corresponding weakening of the mental and physiological health and vitiation of character.... All aspirants of eminent and blissful life should therefore pay due attention to the refinement of personality and sublimation of spiritual element of their inner self.... Revolution Of Attitude - Silver Line Of Bright Future "Attitude shapes the way of life. General mentality and level of thoughts creates specific environment of life in human society. Every action — be that creative and balanced, or, whimsical or destructive, is a consequence of thoughts inspired by the conscious or unconscious mind or inner instincts. Eminence, maturity and depth of thoughts supports planning and materialization of viable excelsior while the thoughts emanated from evil intentions and negative attitude malign the environment and divert the progressive trends towards decline and fall at personal and social levels of life. The

quality of thoughts and sentiments of every individual implicitly influence, with a varied degree of impact, others in his contact” – these views expressed by Sir William James, a noted psychologist and philosopher apply to all ages of human civilization.... The rising trends of violence and crimes seen today across the world are natural consequences of the pollution pervading the ideosphere – the environment of thoughts and emotions. The radioactive radiation generated by the atomic explosions, and the other kinds of poisonous effects of industrialization have been destroying the ionosphere and the biosphere.... These dangers have cautioned the scientific community and every thoughtful mind, which can foresee the dark future of life on the earth vis-à-vis the present state of polluted environment. The blind race for wealth and power motivated by selfish attitude and ego is the root cause of virtually putting the human society at an edge of extinction. The declining standards of value-system in human society have polluted the intellectual and social domains more severely. The crisis of faith, feeling of insecurity and increasing bitterness among people has devoid the human life of peace and happiness in present circumstances. It is high time that we all think about — How to save perishing humanity? How to combat the pollution pervaded in every direction of the biosphere and the ideosphere? How to reset the natural harmony of the ecosystem? How to build the social atmosphere of mutual faith, amity and altruist co-operation....? In one of the recent world conferences organized in Toronto, Canada, sagacious thinkers and leading scientists had discussed some of the above issues concerning the future of our planet. Speaking on this occasion, Prof. John W. Walker of Britain had all praises for scientific and technological 99 developments of the modern times but, he also pointed out how the poisonous mentality of aplomb and selfish attitude has put our lives in the pathetic state of crisis today.... We have no control over the misuse of technological advancement. There is rigging, exploitation and pillage in all walks of life today. In his views, the pollution of thoughts is more pernicious than that of the air or water. The power of human mind was the focus of discussions in the above conference on search of possible solutions for the healthy survival of human society. It was collectively emphasized there that drastic change in the materialistic attitude is inevitable in any serious attempt to protect the existence of human race. It is the craze for material wealth and comforts, thrust for name, fame and power and corresponding decline in humane ideals and sense of harmony at global level, which has led to the blunders ranging from social and economic exploitations, excessive consumption of natural resources, to atomic weaponization.... The man-made hazards have shaken the balance of ecosystem and put a question mark against the possibilities of existence of life on the earth until the next millenium. Reversal of the ‘consumerization of the philosophy of life’ is therefore the most pertinent demand of our times, which deserves immediate action. Learned Professors of the Neuroscience and Mental Health Department of the Massachusetts University have observed a serious lack of compassion in people’s attitudes towards each other and towards the environment and nature as a whole. They express the need for refinement of people’s mentality to evolve an eco-friendly philosophy of life based on high ideals of humanity. In their views, a positive change in the attitude and way of thinking would bring corresponding transformation in the mode of life. This in turn would create an environment in which human heart would be brought out from shadows of inhuman sentiments and desires... It will then breathe in the fresh blow of love and compassion for all. Philanthropic scholars and intellectuals of other disciplines too feel that evolution of thoughts and sentiments is unavoidable today and that it can be achieved by collective endeavors. In the earlier times too the human society has boldly survived threats of disastrous crises by arousing its discerning intellect. There is a light of hope in collective refinement of our attitude today as well.... The views of Dr. George R. Bach of America in the present context reflect his in-depth study and adept analysis of Human Psychology. He observes that – the pressure of passions for sensual pleasures and materialistic comforts has captured the natural instincts of our serene inner self within the thralldom of selfishness and aplomb. Self-interests dominate our thinking and if left unchecked these narrow mindedness and egotist tendencies virtually push us to acquire more and more pleasure and power without caring for moral values or fairness of means. Dr. Bach has named this mentality as “Handsome Devil”. Materialistic and selfish people, whose minds are engaged in the hedonism – a term coined by western philosophers to express the influence of ‘handsome devil’ – suffer from total lack of peace and trust in their personal and professional lives. These negative effects influence the lives of many others too because of the direct or indirect interactions with the formers. Hedonism is reflected in the instincts of cruelty, eroticism, criminal mentality, etc and

often results in psychological disorders and suicidal inclinations. According to psychological theories, such tendencies emanate from the evil instincts, from within, and also gain strength and excitation from the compatible thought-waves transmitted by others in contact. When this effect of hedonism spreads across larger sections of the society, it becomes a “sociogenic monitor” and leads to disastrous consequences. The present state of human society appears to be under such an attack because of which we see rapid decline in human character and moral values..., and, hardly find any sign of improvement despite higher rate of education and materialistic progress. 100 Who will turn this negative trend upside down? How would people’s mentality and mode of life follow the righteous path? Scholars of Philanthropy and visionaries argue that — “Those materialistically progressive and successful groups who have contributed to develop this atmosphere to convert the human society into a consumer society owe the responsibility to wipe out the illusions and pollution generated by their fallacious deeds. These ‘culprits’ include those intellectuals and leaders, whose voice and pens have spread the philosophies of ‘survival of the mightiest’ and ‘smart use of skill and opportunities for immediate gains...’, etc. It is the duty of front line scientists to prevent misuse or commercialization of their inventions for the selfish motives of few powerful heads...”. A positive change in the attitudes of the elite and the ‘mentors’ (leaders) of the society would induce corresponding effects in the others too and gradually create an enchanting environment of mutual trust and collective awareness to purify the philosophy and way of life at all levels. Renowned psychologist Robert Anthony believes that – “The energy waves generated by the fission of a tiny atom are spread in all directions in the surrounding areas and gradually expanded in the cosmos. Similarly, the transmutation and expansion of compassionate sentiments and thoughts – inspired from the inner core of the human-self with the force of trenchant faith in high ideals of humanity – would educe immense mental energy with a potential equivalent to that of the Sun. This would generate a unique power to influence infinitely vast domains of collective consciousness. Our mind has the capacity to absorb this psychotron energy and get charged accordingly.... This astonishing source of mental energy can orient one’s desires, imaginations and ideology in creative directions and bring out positive changes in a magical way”. As per the expert opinion of Dr. Anthony, the energetic flow of one’s thoughts influences the development of his personality and the environment of life. It does so as powerfully, as the electromagnetic waves control the gravitational attractions, and repulsion and unperturbed rotations of the planets in their respective orbits — everywhere in the limitless expansion of the universe.... In fact the principle of functioning of the ‘mental magnet’ resembles that of the magnetic force in nature. A magnet attracts iron particles; in a similar manner, the ‘attracting power’ of trenchant and focussed mind attracts specific thoughts compatible with its nature. Equivalently, the force of more powerful thought-waves influences the weaker minds. The waves generated in water pond after throwing a stone traverse in a circular manner. If two stones of different sizes are thrown in the same pond at two different points, the circles of waves generated around them will be of different diameters according to the sizes of the stones. Soon the waves of the bigger one would be superimposed over the smaller waves completely.... Equivalent effects are also seen on the domains of ideospheres of human thought processes. The energy waves of clear and powerful thoughts inspired by the pure instincts of awoken inner self are relatively more intense and possess wider domains of influence. Generation, enhancement and expansion of these are the needs of the day to ensure all round progress, peace, happiness and bright future....

Self-Restrain: A Sign Of Prescient Wisdom An atom bomb is protected under a strong solid covering with due care to prevent the occurrence of processes which might cause atomic fusion or fission. This is necessary to annual any risk of accidental explosion of the bomb. Precaution and safety are essential before the accumulation and retention of power of any kind. It is more important in case of the psychic power or the power of the soul. 101 Aspirants of exaltation of spiritual powers have to simultaneously learn the methods of - arousing and protecting the internal power of consciousness which naturally exists everywhere in the individual self (and hence in the mind and body too) and absorbing the spiritual power attracted from the cosmic domains. Self-restrain is the most important aspect of spiritual endeavors. One might enhance the vital powers of the body and mind by dedicated practice of specific s³dhan³s or prescribed training. However, all effects will go in vain if the energy of pr³ñā so acquired is allowed to go waste in over excitations, sensual pleasure etc. This would be like attempting to fill a tank with water and also letting it flow out freely through the holes. Curbing this loss by blocking the outlets is the first requirement. Spiritual

s³dhan³s would not show any effect unless the cause of loss, misuse or wastage of vital power and physical and mental potentials is controlled by sincerely adopting self-restrain. This needs clear identification and adept analysis of desires, habits, attitude and mode of living and gradually molding them towards asceticity by steady control over ambitions, greed, excitations, etc followed by appropriate reforms in life-style with firm determination and will. Desires and ambitions emanate from the inner domains of mind and initiate the process of disturbing the harmonious flow and natural use of the vital power. This effect triggers those activities of the sense organs, which account for excessive consumption of this power and potentials of the body and the mind. Practice of self-restrain should therefore be focussed at this root. Controlling the agility of mind and improving its tendencies sets the basis for disciplining the body and mode of living. Serene and calm mind begins to obey the instructions of the inner self. Once it comes under the control of the soul, elevation of the physical, mental, intellectual and spiritual power is easily accomplished by any of the recommended s³dhan³ procedures or other practices of internal amelioration. Adoption of self-restrain is essential for ideal progress in any walk of life. It is a must for excelling bodily, intellectual, mental and spiritual levels of human life. This is why it has been described as a necessary duty, as well as a religious discipline, by the saints and sages of all eras in all parts of the world. One who observes austerity and disciplined life with trenchant control of mind is sure to be healthy, strong, bright and more talented and has the potential to impress and influence others too. Practice of self-restrain is extremely difficult for those who are habitual to luxurious life style and cherishing sensual pleasures. Comforts and pleasures are, to some extent, necessary for relaxation of the body and recreation of mind. But, the trouble begins, when one gets carried away by such facilities, and starts enjoying them with greater interest and attachments. For example, eating food is essential for sustenance of life. However, when the greed of tongue overcomes the metabolic requirements of the stomach, then eating varieties of delicious preparations in an uncontrolled manner becomes a 'natural' habit. Over-consumption of lavish or heavy food disturbs the harmony of metabolic reactions. This successively affects other functions inside the body and thus 'invites' a variety of diseases. Consequently, more of the vital power is used in placing the body-functions in order at the cost of further loss in vitality and resistance and lack of efficiency in the activities of the mind too. Once someone gets used to luxurious comforts and sentient titillation, he desires for more of such pleasures. This begins a vicious cycle and traps his intellect and conscious mind too. All his thoughts and activities of life virtually get focused on finding the means of more materialistic possession and joy of temporarily satisfying the ever growing thrust for sensual pleasures. Here, the misuse of his 102 natural potentials and talents commences which unnoticeably opens up the gates for weakness, worries and wrathful or depressive tensions in future. It should be recalled that the human body is a 'dynamo' for generating power. The currents of vital energy continuously flow inside this excellent system through its bio-electrical regulator – the brain. This power should be protected and creatively used for improvement of physical, mental and spiritual health. This can be achieved only by preventing its loss and wastage through the leakage of the unmindful aspirations and activities pertaining to luxurious enjoyments. Discipline and practices of self-restrain are necessary as well as sufficient for protection and gradual transmutation of the repository of immense powers existing in one's body and mind. Lord Krishna remarks in the holy G^ot³ – "Na Te^u Ramate Budhaⁱ". Meaning: Realizing the importance of self-restrain, wise people always keep away from the thralldom of worldly comforts and sensual titillation and joys. Importance Of Stable Temperament Until recently it was believed that malnutrition, seasonal variations and germs and viruses are the major causes of diseases and that most diseases spread through infections which receive extra support from filthy surroundings and bodily weakness. With the advancement of neuroscience and increasing trends of psychosomatic problems it has now become clear that the diseases and disorders generated by imbalances and aberrations in the mental functions outnumber those caused by germs and viruses.... It has been found by thorough experimental research that the ups and downs of temperament, mental excitations and depressions affect blood circulation, body temperature and also disturb the harmony of other physiological and biochemical activities inside the body.... As a result, the mutual compatibility or affinities of different molecules and chemicals inside this complex system is transformed into abnormal reactions leading to lethal effects or unnatural immunogenic interactions.... These often give rise to high fever, swelling, body ache and stiffness, arthritis, etc, and if prolonged, raise the risks of cancer, auto-immunity, insanity,....etc.

Manifestation of the effects of the above kinds are usually recognized as the symptoms of some deficiencies or internal injury in specific organ or component of the body and a remedy is sought through oral or intravenous antibiotic medicines or surgical operations. More or less all methods of medical treatment popular in the modern times work on the principle of diagnosis and cure in terms of the strength and functioning of the body components only. This approach is not comprehensive and therefore fails in complete eradication of the disease. Sometimes the problem recurs in more complicated form due to the side effects of earlier treatments; ever new diseases and disorders are born because of the attempt of unnatural control over the body-functions by external effects without touching the root cause of the problem. The plethora of such 'practically incurable' diseases and the psychosomatic disorders of varied severity elucidate that in one form or the other, disorders and deficiencies or weaknesses at the level of brain and mind lay the foundation for the birth and growth of above kinds of complications. As the flying clouds keep changing their appearance, disruptions of the harmony of regulations of the brain (mind) is also manifested in ever new varieties of physiological diseases and mental complications. 103 Termination of heart beating was once upon a time considered the final sign of death. The concepts have changed now.... It has been proved that the patterns of heart beating depend upon mental conditions and brain functions and that the latter is indeed the real indicator of presence or absence of life. Today, brain death is a universally accepted definition of death; even if the heart stops its continuous pulsation one is not declared dead in case his brain shows signs of activity..... Brain-diseases and disorders can be classified in two broad categories - structural and sentimental. The structural categories pertain to abnormalities or deficiencies in brain at the anatomical, physiological or electrochemical level. Brain-injury, severe headache, brain hemorrhage, paralysis, brain-infections etc fall in this group. Medicine and surgery are tried as remedies in such cases. Genetic abnormalities are considered as major causes of underdeveloped brain. Sometimes the negative reactions of medicinal treatments undertaken during pregnancy, stroke on the womb or radiational effects also cause serious damage to the normal anatomical development of the brain of the foetus and the child is born as mentally handicapped or with mental spasm. Current research on the structural deformations and diseases of the brain includes wide varieties of topics ranging from specific areas of cellular and molecular biology to bio-electricity and neuromuscular dynamics. Other aspect of brain functions is quite delicate and esoteric - especially in case of humans as it deals with sentiments and emotions. Among the known faculties of mind, the qualities of intellectual activities are often analyzed in connection with - one's academic background, general atmosphere in which one is born and brought up, his training, experience, analytical potential, creativity etc. Generalizations could be made in this respect to identify an ideal socio-educational system for upkeeping the average intellectual level of the people. However, sentiments are rather too subtle and personal and therefore cannot be analyzed with respect to such general measures. Sentiments seem to depend largely upon the samsk³ras accumulated in the unconscious mind and influence one's psychology and attitude. It is a common observation that, even the people born and brought up in identical conditions react quite differently to same events.... Even the tragedies or major incidents of life do not perturb some people while some others make havoc of minor happenings as well. The sudden variation in the temperaments of the latter kinds of people often vibrate the deeper layers of their mental consciousness and disturb the harmony of the super-conscious regions too. This results in serious complications at psychological levels. The memories of ups and downs of life fade with time if one has not taken them on the heart, otherwise, they leave intense impressions on the delicate surfaces of the mind and may cause psychosomatic disorders or psychiatric problems in the long run.... Frenzied or insane state of mind is in a way an extreme state of emotional imbalance. In this state a person does not realize what he thinks and does. His uncontrolled 'thoughts' flow in any arbitrary direction.... Etiquette and social responsibilities have no meaning for him; an insane person can't even manage the routine chores of his personal life. Such persons can't take care of themselves.... In an excited state of mind they might inadvertently assault or harm others. Thus, from the point of view of their safety and security of others they are often kept in mental hospitals, where the specialists could offer systematic treatment. It is startling that in most psychiatric cases, the structure and functions of the brain components are perfectly healthy. It is some kind of mental shock due to sever loss, tragedy, insult, breach of faith, occurrence of a frightening incident etc which devastates the sentimental harmony and stability of

the endocrine system. Psychiatric analysis of large number of such patients indicates that over 104 sensitivity or emotional excitations weaken the mind and increase the chances of mental disturbances of significant intensity. It is therefore advised to keep the mind detached from the fluctuating conditions of life. Favorable or adverse incidents on personal, social and professional fronts should be faced intelligently and with due interest and care; but, they should not be allowed to create impressions on the mind so intensely that this sensitive system would get shaken or disturbed. Unprecedented challenges, unexpected loss or gain etc do not affect mentally stable and emotionally strong persons as much, as they do to highly sensitive or emotionally weaker ones. Wise men therefore practice for stability and calmness of temper in all circumstances. The state of *sthita pragyat*³ is defined in the Indian spiritual philosophy as an ideal state of stability of sagacious mind. A *sthita pragya* person performs his duties efficiently and lives a happy and peaceful life because of his excellent control over his thoughts and emotions. His mind accepts the adversities and advantages of time with a balanced, matured and sportsmanly attitude. Despite living a normal duty-bound life, he remains detached from the diversities of circumstances, aspirations and expectations. Attainment of this state of immense internal happiness, unperturbed patience and righteous attitude implies culmination of knowledge and wisdom. We should train our minds to face the world with stable temperament. It should be constantly reminded that loss and gain, honor and insult, opportunities and obstructions, favorable or adverse circumstances are two sides of the same coin. The ups and downs of life are natural like high and low tides in an ocean. The adversities should be faced boldly with an optimistic attitude that - the powerful blow of time will soon evade the difficulties because nothing is permanent in this world. Such thoughts educe courage for creative endeavors. Favorable circumstances and gains may be accepted with humility to enhance the chances of progress while remembering that availability of such opportunities is only temporary..... Maintenance of enthusiastic but balanced temper teaches the art of living righteously and successfully. Depth Of Emotional Center Brain and Heart have supreme importance in sustaining the flow of life and health of the body. Heart as an organ continuously supplies pure blood to every other organ including the brain and also distributes vital energy to every component of this living system. In spiritual sciences, the region of heart is described as containing the extrasensory center of emotions, source for the expression of the inner self. The astral body is considered to have subtle linkage with the inner core of this domain. Sentiments, beliefs, inspirations, compassion, affection, courage intrinsic faith in high ideals emanate from this center. It is in the depth of heart where lies the source of divine inspirations which can transmute the life of an ordinary person into that of a great individual....., an angel.... Purity of sentiment and esteem faith in truth, morality and high ideals reflects the awakening of divinity existing in one's heart (inner self). Maligning of this sensitive region of intrinsic values and inner emotions on the contrary is bathotic. It debauches one's personality and may eventually convert him into a cruel man, an audacious, acrimonious giant, a living ghost... The serene sentiments of pure love and compassion (*bh³va sa@vedan³*) emerge from the inner self and like the manifestation of a seed into a tree, expand in the wider domains of life. They influence the near and dear ones and have the strength to inspire all the living beings that could think or feel. Purification, transmutation and illumination of *bh³va sa@vedan³* lead to the spiritual sublimation of the *h—adaya granthi* (the covering of the inner self) and results in the betitudeous state of ultimate 105 realization of God and attainment of absolute bliss. The divine faculties of soul are aroused in this state. The scriptures of yoga describe the region of heart as the location of the *an³hata cakra* - extra sensory energy center (ESEC) in the cardiac plexus. As per the descriptions of the existence of the *laÚ cakra*s — the *m_l³dh³ra cakra* (ESEC in the pelvic plexus), the *sw³dhiÚh³na cakra* (ESEC in the hypogastric plexus), and the *mañip_lrita cakra* (ESEC in the epigastric plexus) precede the *an³hata cakra* in an upward direction along the spinal column. Spiritual endeavors of the *yoga s³dhan³s* transmute the vital power through the activation of the *laÚ cakra*s. The upward flow of the subtle currents of *pr³ña* sublimate the successive layers of physical, mental and emotional powers. This edifies the *s³dhaka*'s sentiments and ideology much above the peripheries of egotist and selfish attitude. The animal instincts of living for carnal pleasures vanish and altruist sentiments impregnated with high ideals of humanity begin to grow along with prudence of thoughts. Further amelioration of one's tendencies, faith, virtues and deeds becomes possible only if the heart – domain of emotions and sentiments is refined by divine flow of warm *bh³va sa@vedan³*s.... After the activation and sublimation of the

h—adaya granthi, a human being becomes a divine being in the same body. This opens up the path of absolute transmutation of his knowledge and potentials in the righteous directions.... When his inner self is covered under the darkness of evil instincts and selfish desires a man is no better than an animal. He cannot think of refinement of his intellect and sentiments by endowment of generosity, love and compassion and by pursuing altruist activities with moral ideals. But, when the subtle voice of the soul is heard and the inspirations of divine love and faith in the divine disciplines are firmly established in the inner domains of heart, the malice and complexities of mental tendencies start waning out.... If one realizes this upthrust and motivates his activities in conjugation with the dignity of humanity, his inner self begins to illuminate with the charge of sublimated energy of pr³ñā. The upward flow of pr³ñā in such a saintly person can reach the an³hata cakra without any impedance and eventually vibrate the h—adaya granthi. The secrets and importance of opening the latent covering of the h—adaya granthi are elucidated in the 88th Īloka of the 18th section of the AĪ³vakra G^ot³. Here Maharshi AĪ³vakra explains to King Janaka that – “breaking the shell of the h—adaya granthi implies decomposition and sublimation of selfishness into selflessness, transformation of ego into altruist sentiments of love and compassion...”. Opening of this g—anthi (knot) liberates the mind from the tendencies of raj and tam and triggers it to move freely in the unlimited domain of the soul. One, who has purified his heart and has successfully uprooted the arduous tendencies of ego and unending worldly desires, is certainly far above other humans whose lives are entangled in the slime) of excessive materialistic possession and attachments of sensual pleasure and selfishness....”. Esteemed Greek philosophers and astrologers like Agrippa and Brunoes have compared the inner core of the heart — the center of the subtle existence of soul with the limitless core of the cosmos within which all the planets of the solar system revolve around their respective suns, the suns move around the giant suns...., and the galaxies move and expand timelessly..... Because of this similarity between the core of the ‘universe’ of the cetan and the jaĀa cosmos, the hearts of spiritually refined persons can sense the mysterious activities of nature and acquire the knowledge of cosmic events beyond the barriers of time and space. 106 According to the above philosophical deliberations, a human being exists within the core of the jaĀa manifestation of the cosmos and the cetan reflections of the cosmos exist in the inner core of his heart. The inner self of a person is therefore as vast as the cosmic creation of the Omnipresent. The soul is a fraction of the Supreme Consciousness. God and humans thus share a common linkage. The heart – the domain of cetan³, the inner self, is indeed the center where unification of the soul (individual consciousness) with its eternal origin (the Supreme Consciousness) can take place in human life. Because of this coherence, all religions, saints and sages of all ages and the philosophers of the origin and ultimate goal of life emphasize the importance of purification of the heart by the refinement of sentiments and elevation of emotions in concordance with the original divine nature of the soul. The science of spirituality aims at the absolute refinement of heart and attainment of the state where the mind enters the deeper layers of the inner self and realizes the divine glow existing in the individual consciousness. Every human being is free to purify his sentiments and sublimate the power of his thoughts and gradually move upwards in the direction of transmutation of humanity into divinity..... Human Mind – Source Of Eternal Bliss Human body stands as a masterpiece of the marvelous artistic creation and absolute excellence of the Omniscient. Development of such a superb automatic machine of unimaginably advanced technology in this three dimensional world is beyond question because even the complete decipheration of the internal structure and in-vivo functions of this unique device has not yet been possible for the modern sciences. Each and every component of the human body of height 5 feet and weight 60 kg on an average is endowed with amazing potentials. In spite of the excellent specificity of their body-structures and certain potentials that are beyond the reach of humans, no creature existing in this world can compete with the perfection of the human body. What makes a human being a special creation or the most evolved organism is principally his brain. Elucidation of its anatomy and bio-electrical activities — through the ‘galaxy’ of interconnected neurons has posed challenging problems before the front-line researchers in allied areas. The neurotransmitters secreted from the synaptic connections between the neurons have attracted the neuroscientists the most. Recent findings indicate that specific kinds of neuro-hormonal secretions are associated with emotional variations too and it is now being investigated – how to upkeep one’s intellectual sagacity, mental creativity and emotional stability by maintaining regularity of specific neuro-chemicals. It is interesting to note that what has been the focus of attraction

of the neuroscientists in particular and of all scientifically minded people in general was studied in depth by the rishis – the Indian sages of yore, through adept introspection and spiritual endeavors. They had realized the role of the *lāŪ* cakras in controlling the bio-electrical currents and the endocrine secretions. They had successfully attained supernormal potentials by activating these extra sensory energy centers. While deciphering the astonishing powers of human brain, they had discovered that the sahastr³ra cakra (extra sensory center of cetan³ in the deep core of the upper brain....) is the master regulator of the conscious activities in human body and mind. This crown center stimulates the endocrine glands and triggers hormonal secretions. The sahastr³ra cakra was visualized by the rishis as a subtle ocean of currents of consciousness, which are manifested in continuous bio-electrical flows inside the brain. These spiritual mentors had 107 found that smooth activation of this crown cakra generates the feelings of immense bliss, compassion with acumen and afflatus. Advancement of neuroscience has defined new frontiers of collaborative research in the areas of Neurochemistry and Psychology. The intermittent roles of mental and emotional conditions in neurohormonal secretions and vice-versa are becoming clearer with this research. It is also being argued now that one can orient his emotions or expand intellectual potentials as per his aspirations by regulating the neuro-hormonal secretions in a suitable manner.... The discovery of a major group of about thirty neurotransmitters called meptadrymes was a major breakthrough in neuro-pharmacology. The concentrations of these chemicals are found to be dense around specific center in the brain. These are available in so less quantities that extracting them is like, as Dr. Donald Zandon of the Pharmacology department of California University points out, separating a pinch of salt from the water of a swimming pool. The discovery of hormones like encephaline and endorphin has been of great help in understanding the relationship of the endocrine system with human psychology. One, who can stimulate the secretion of encephaline in difficult situations, can remain free of all tensions and worries in all circumstances. Presence of encephaline and endorphin is found to be intense in those centers of brain the endocrine column (su³lumn³ n³Ã°) which are associated with the sensation of pain and pleasure and are supposed to maintain the emotional variations. Some endocrinologists opine that the ancient Chinese therapy of acupuncture is equivalent to the modern technique of stimulating specific hormone secreting center with the help of electrodes. They have also found that the practices of yoga nidr³ and the positive effects of the biofeedback techniques and hypnosis result in accelerating the secretion of the natural painkillers like encephaline, which calm down the mental fatigue and tensions. Absolute peace and beatitude is the eternal desire of the soul. This desire is manifested in the aspirations and endless search of the mind for happiness. However, as a deer eagerly hunts for saffron, unaware of the fact that this source of heavenly scent is present in its naval, a human being too continuously runs behind materialistic means and wanders in worldly activities, with a hope of acquiring more and more happiness... But, without paying attention to his own inner self that is endowed with an eternal source of divine bliss in its deep core.... Search for happiness in materialistic means, sensual pleasures or in satisfying the ego...., is like a mirage; its illusions entangle the individual consciousness in the net of worldly attachments and darkness of ignorance about its own divine origin. This illusion and hope of immense bliss becomes a motivating force for an individual to live in this world and it also proves to be the major cause of the endless journey in one or the other form of life.... Etasyaiv³nandasy³ny³ni Bhç³t³ni M³tr³mupaj³vanti – B—ahad³rañyaka 4 | 32 Meaning: The afflatus and feeling of enthusiasm, satisfaction, completeness and absolute peace which a s³dhaka experiences (upon culmination of spiritual endeavors) is indeed the reflection of the blissful state of the soul. Modern Psychology and other branches of brain sciences describe that the source of cheerfulness exists in our own mind and emotional center. The science of spirituality elucidates it as lying deep within the inner self – in the core of the eternal bliss cell (³nandmaya kosh). Advancement of neuro108 hormonal chemistry has given new dimension to the research on human brain and its subtle counterpart – the mind. A comprehensive look at the psychological complications in above context shows that extrovert attitude and over-ambitious search for momentary happiness by materialistic attainments give rise to excessive competition and strife and hence to tension, despair and mental and emotional disorders.... If one introspects himself and endeavors to realize the immense source of bliss existing in the innermost layer of his mind, he can resolve all his problems and see the guiding light for culmination of life in the righteous direction to reach the ultimate state of eternal peace.... Adoption of spiritual disciplines and dedicated practices of the s³dhan³s of purification of the inner self ensure viable

success in these endeavors. 109 Uncountable Boons Of The Almighty The formation of human body begins by the meiotic combination of sperm and ovum of the biological father and mother. Parents or guardians also look after the healthy growth, education and development of the child. The natural love and affectionate protection and support of the parents is duly recognized by the children when their turn of bearing the responsibilities arrives.... At the gross level, visible support and help of any kind deserves grateful acknowledgement as part of courtesy, humility and sense of social responsibility. But, do we also realize how grateful we should be to the eternal creator who has blessed us with the boons of life – the pr³ña and consciousness. Whose divine glow kindles the light our intellectual and sentimental faculties? Whose love, inspirations and strength are constantly available to us throughout our life...? Every component of our being, every moment of our life should be grateful to HIS grace.... The condition of mother's womb for the protected sustenance of the embryo is so perfectly organized by nature. How would such an orgulous development of child have taken place otherwise....? It would have been born and died like insects, in the excessive heat, cold or strong winds in the embryonic state if there were no compatible environment available in the womb. God is so kind that HE has also arranged for the availability of natural and complete food in the form of mother's milk in advance, before the birth of the child.... After birth, an infant needs constant care and nursing. This too is superbly managed by the divine sentiment of motherhood and love inspired by thou.... At every stage of life, thy- generosity is reflected in diverse forms of materialistic, social and emotional support received by an individual from nature, family and friends..... It sounds ironical that a grownup person ignores the fact that all his achievements have come into existence because of the direct or indirect cooperation of the society and natural environment. Most surprising is the observation that he forgets his eternal origin and the omnipresent parent of the cosmos who has bestowed health, intellect, love and unlimited invisible boons on his life.... That Omniscient power is not perturbed by this ungratefulness of HIS child, rather, it continuously bestows its blessings and provides adequate environment for vigorous development of the youths into responsible citizens.... HE has also arranged for a system of emotional and physical security in the form of familial and social relationships where one can also find a compatible life partner to share all ups and downs of life and progress with mutual trust and affectionate cooperation.... It is indeed by the grace of God that nature has made man and woman complementary to each other so that both could gain a feeling of completeness in each other's company and march towards higher goals of life as responsible members of the society. It is so kind of HIM to have endowed the human body with a remarkable defense mechanism of the immune system. HE has protected all organs of the body under the compact covering of flesh and skin. HE has also offered us – ultra sophisticated audio visual system of ears, mouth and eyes; an astonishing brain to think and create wonders in HIS wonderful world..... No technological development would ever produce a sensory motor system with such strong but flexible components as the system of nerves, muscles and intestines of the human body. How finely the bones are fixed in even the tiniest part of the body that it can move, rotate, lean and turn in multiple directions without losing its balance..... 110 Be that the visual properties of the retina of the eyes, sonic sensors of the diaphragm of the ears, sensitive filters of the kidneys, the automatic pump of the heart or the stout and mobile stands of the legs....., etc, every organ, every faculty of the human body and mind reflects the supreme intelligence and absolute perfection of its creator in every respect. Such a Supreme Being could be none other than that Omniscient, Almighty, and Eternal Creator – God. Unless we realize the fact that we are creations of HIS divine grace, we cannot know our own self.... Negligence of HIS colossal blessings amounts to disrespect of our own existence. This ignorance diverts our life towards a suicidal path where we gradually lose the potential of our mind and body because of our own carelessness and untoward actions and virtually reach an edge of extinction.... The body of a living being is like a fort provided by nature for the protection of the soul, as a tool for manifestation of the latter's presence.... The house where we live appears to be constituted by walls, roofs, floors, doors, windows etc. These are only gross components made-up of bricks, stones, concrete, cement, iron, wood, etc. The gross components of the human body such as the heart, kidneys and other organs, blood, bones, muscles, skin etc are made up of tiny cells which can be seen by powerful microscopes. Trillions of these basic building blocks constitute the visible component of body and almost an equal number continuously floats in the body-fluid from one corner of the body to the other and participates in the repair of the injured parts or internal damages of this fort. Each cell is a complex living system

endowed with a gigantic universe of bio-molecular activities. These tiny units continuously die and are instantaneously replaced by new ones during the lifetime of the body. This marvelous automatic functioning at micro level appears to be miraculous. As we look deeper into the infinitely many interconnected activities at cellular, molecular and atomic levels, we come closer to the realization of the immense grace of thou bestowed on us.... What we discussed above pertains only to the gross body. Thy blessings do not end here.... HE has endowed us with a limitless inner self where HIS eternal inspirations exist as subtly as the rays in the sun, atoms in matter or fire in a spark.... HIS afflatus echoes in the inner self and reminds us of the basic objective of culmination of life to reach the ultimate goal of the soul.... But, we don't hear HIS voice because of our extrovert attitude and illusions of worldly attractions and egotist attachments. Our ignorance and ungratefulness weakens the linkage of our mind and heart (emotional center) with our eternal root. We thus invite varieties of pains, sufferings, tensions, strives, diseases and mental agonies instead of submerging our soul in the limitless ocean of beatitude and acquiring pearls of absolute knowledge, divine bliss and peace which human life indeed deserves. We, the intelligent beings, commit the blunder of shunning the golden opportunity of all round progress made available to us in the form of human life.... Ironically, we attribute it as our wisdom...? Herbert Spencer has described the presence of God in the depths of the inner self as – “God is an infinite power impregnated with immense love for every living being.... That is why it reminds everyone of its eternal discipline to alert one about the disastrous consequences of the sins and misdeeds. It also inspires the mind towards morality and altruist activities by bestowing its affection in the form of miraculous support or good omen from time to time...”. “We follow the rules of our government because breach of law leads to rigorous punishments. Although, one is free to do whatever which is not constitutionally illegal, one feels insecure or experiences a hidden apprehension while indulging in immoral or unethical activities. This fear is a clear indication of the warning conveyed by the divinity present in our soul... Those, who become alert and obey this subtle instruction, benefit by further strengthening of their inner powers while 111 others risk following a path of decline and fall. Those who neglect the advice of the inner God are most unfortunate.....”. The Omnipresent Supreme Creator bestows his love and support to every living being since the moment of manifestation of life in it.... HE protects everyone and helps successive development along the journey of the soul.... Human beings are extremely lucky to have been blessed by the faculties of thinking and feeling.... Once a person crosses the boundaries of childhood and becomes matured, the Omni-kind thee starts teaching him the lessons of righteous conduct to remind him of his responsibilities as a human being – the eldest son, the crown prince, the heir of thou f0 power. HE exists within us and cares for us like a perennial guardian. In spite of this if we remain unaware and often disobey his disciplines, we would be those unfortunate ones who diminish their own destiny and exhume their own graves.... Perfect Use Of Rare Opportunity It is said that human life is that rare opportunity, which even the divine spirits aspire for.... Monotonicity is always boring even if it consists of heavenly pleasures.... Diversity has its own beauty. Varieties of delicious food items make a feast more enjoyable. A bouquet of multi-colored flowers looks more attractive. Varieties of designs of jewelry and clothes add color to the artistic beauty of these items.... Human life is considered as a chance to experience the widest gamut of circumstances and acquisition of enormous types of talent and powers... Because of its multiple manifestations and diverse tendencies, human life appears to be more challenging and ecstatic. Humans often dream of heaven and want to live in that timeless and ageless world of divine beings. But, they do not know that it is the nature of their own mind because of which ‘the world beyond reach always appears to be more attractive...’ The same type of food howsoever tasty does not satisfy us for long time.... We do get bored of living under same circumstances, performing the same routine, and therefore want a change.... Tourism fructifies because of this internal desire of people to visit newer places, enjoy newer experiences.... As humans desire for heavenly life, the divine beings too want to take birth as humans and experience the eventful sojourn of thid life. All the _eties of the divine power, worshiped in the temples, have been given a human like depiction. This signifies the intimate relationship – between divinity and human life – that was visualized by the acumen of the spiritual experts of ancient times. It seems the Almighty has applied all HIS creative talents in designing the human form. It is indeed superior to the varieties of orgulous creatures existing in the universe. Elephants and lions may be mightier than humans in general but the skillful performances of the gymnastics, boxing, karate etc demonstrate that human

could overcome even the might of the wild animals.... No living being is endowed with such a beauty, artistic taste and creativity and intellectual talents as a human being is. The adventures, scientific discoveries and inventions, artistic performances and constructions made by man are magical in many ways. The spiritual attainments made possible by people on this earth further prove that a human being is indeed a heir of thou. Modern man has been very successful in materialistic developments. If he decides and dedicates his endeavors to the evolution of his internal world, astonishing accomplishments like the ancient yogis will not be beyond his grasp. The siddhis like añim³, laghim³, mahim³, etc, of the rishis – as described in the scriptures, are not rhetoric representation.... They can indeed be attained by dedicated 112 spiritual endeavors (s³dhan³s) by anyone who live a sacred duty-bond life within the disciplines of morality. The magical potentials of siddhis emanate from specific extrasensory power centers in the human body. The brain (mind) and the heart (repository of sentiments) possess divine powers in their inner depths. The concept of varieties of Gods in the Hindu religion is an allegoric representation of the divine powers inherent in the human consciousness. The Cow has been described as a holy animal in the Hindu system and in some religious pictures, different types of Gods are depicted in specific parts of her body. Whether a cow possesses latent centers of spiritual energy in those parts of her body might be doubtful... But, it is indeed true incase of a human being. Supernatural talents and powers of spiritually refined people are living examples of this fact. Every soul is a fraction of the Brah[®]. Significantly large portions of HIS divine powers have been bestowed on human consciousness. The origin of divine streams of powers of different manifestations of God may exist any where in the in cosmic expansion of the Brah[®] but, they do have subtle connections with the specific extrasensory centers like the 16 cakras present in the human body and brain. Activation of this connection by spiritual s³dhan³s results in arousal of associated divine faculties. This is what is conceptualized as the incarnation of specific God or divine power in a human being.... Indian philosophical deliberations signify that human life is a rare opportunity, which is available after the arduous journey of the soul through 8.4 million yonis¹³. One's birth as a human being is a great boon, as it bestows the unique opportunity to the soul for absolute culmination and liberation to unite with its eternal origin forever. It is only in the human life that one is given a freedom of karma (action). Savants recognize its importance and sincerely endeavor to purify all dimensions of their lives. They also transact their duties with due care and responsibility to add to the viable prosperity and ideal progress of the world created by the grace of God. They make best use of HIS kindness and reach the levels of great personalities, divine souls, angels, or, incarnations by their virtuous deeds and refinement of personality. The average duration of traversing through the 8.4 million yonis would be of the order of several billion years. Just imagine! After this long wait and passage through punishments of past sins...., the human life comes as the only chance for cultivating good omen by noble endeavors and sincere performance of altruist duties and selfless service.... It is a great pity that most people again get trapped into the sinful activities because of the evil tependencies of the _ast births and the illusive attractions of endless avarice, ego, lust and selfish attachments. This attraction is powerful like intoxication. Its force covers the intellect of the careless and ignorant persons. Such people might be successful materialistically, but they do nothing distinctly better than animals in the sense of using the gifts of nature. All activities of their lives, in one way or the other, revolve around sensual pleasure. Filling the stomach and concupiscence driven reproduction – are the two basic outcomes of their so-called diversified activities... Even animals perform these two tasks efficiently as per their natural instincts. They too fill the stomach and indulge in sexual pleasure. What is so special about humans, if they arrange for protection and comforts of their body and of the people related to it; or if, their achievements are motivated by satisfaction of the ego? That way, 113 animals also fight for their defense and roar against their opponents to show their dominance...! If the similar activities are repeated, though with sophistication, varieties and touch of intelligence, throughout the human life too, it would prove to be a blunder like that of throwing away a diamond because of its misidentification as a useless piece of broken glass.... Only a frenzied ignorant woodcutter would make coal of sandalwood and sell it for few pennies.... Spending human life under the dominance of the dreary tendencies of ego, lust and selfish attachments is an equally preposterous act. It would also be a dishonor of the Supreme Creator who has handed over thou potentials to humans as precious 'trust-money' for the betterment of the world and transmutation of the powers of soul. What could be more unfortunate than going back to HIS kingdom empty handed

after wasting and even misusing all his boons because of ignorance and cupidity? Most of the ambitions of most of the people are generally found to be extrovert. These are often associated with name, fame and wealth for oneself and for the children.... There is no end to such desires... As particles in an atom vibrate continuously, so do the activities of the world. Nothing is stable here.... The aspirations and expectations of people also change with the changing trends of the world and with the eternal movements of time. Bubbles grow and burst in water because of the tendency of air to spread from high to low pressure...., into the open space. Events and movements of human life are also short-lived like the bubbles. The gamut of activities in the life of most people fluctuates as part of the game of 'hide and seek' between expectations and trials – motivated by materialistic desires. Towards the end, when death arrives at the doorstep, it becomes shockingly clear that a golden opportunity of enthronement was lost in futile attempts and naive games of making forts of sand.... This realization at the last moments brings nothing except penitence and wounds; it hurts the inner self too. This internal agony makes death - a natural instance of transition, the certain event of the departure of the soul from the body - a terribly painful event. Time never comes back! Every moment of our lives is precious. If spent creatively, every second could prove to be a pearl in the necklace of human life. Exploration of the limitless ocean of the power of the inner self and proper use of the gigantic treasure of time, thoughts, sentiments and physical potentials of the marvelous instrument of the body..., could make human life meaningful and help accomplish its true purpose of sublime transmutation of the soul in its eternal divine glow... <>

(Footnotes) 1 Transmission of pr³ñā from higher level to the lower one. 2 Which amount to about a billionth fraction of a millimeter. 3 A research center for the integration of modern sciences with the ancient Indian sciences aimed at the welfare of all living beings. 4 One who performs the s³ dhan³ – ascetically disciplined exercise or endeavor. 5 A harmonized breathing exercise for extracting vital energy. 6 114 115

Personal Idealism/Axioms as Postulates

←Contents **Personal Idealism** by Henry Cecil
Sturt
 Essay II
Axioms as Postulates
 by F. C. S. Schiller

II AXIOMS AS POSTULATES

By F. C. S. Schiller

I. The Growth of Experience

1. Agreement that the world is experience + connecting principles—why we should start rather than conclude with this.
 2. But (a) *whose* experience? Ours. Why self cannot be analysed away; why knowledge of self depends on experience.
 3. (b) Experience of *what*? The world. But what the world is, it is not yet possible to say completely.
 4. (1) The World not ready-made datum but constructed by a process of evolution,
 5. (2) *i.e.* of *trial* or experiment—original flexibility or indeterminateness of world. Experiment suggested by practical needs—conscious and unconscious experimenting.
 6. (3) Limits of experimenting—'matter' as resisting medium—impossibility of saying what it is in itself. Conception of material world developing in experience. Value of Aristotelian description of a *ύλη* capable of being moulded.
-

7. (4) The 'World,' therefore, is what is made of it—plastic. How far, to be determined only by trying. But methodologically plasticity assumed to be complete. Provisional character of our 'facts.'
8. Bearing of this '*pragmatism*' or '*radical empiricism*' on the nature of axioms. Their origin as postulates to which we try to get world to conform. Contrast with the old empiricism and apriorism.

II. Criticism of Empiricism

9. (1) Its standpoint psychological, (2) intellectualist, (3) axioms presupposed in the experience which is supposed to impress them on us—Mill's admissions, (4) derivation not historical, but *ex post facto* reconstruction, (5) its incompleteness, (6) impossibility of really tracing development of axioms and so unprogressiveness.

III. Criticism of Apriorism

10-25. Its superficial plausibility and real obscurity. Fallacy of inferring from § 9. (3) that there are *a priori* truths.

11. How postulates also yield 'universality' and 'necessity.' 'Necessity' and need.

12. 'Condition of all possible experience' means? Might be (1) cause or *psychical* antecedent, (2) presupposition of reflection (*logical*), or (3) *ethical* or *aesthetical*. Objections.

13. Meaning of '*a priori*'; (1) *logical* or (2) *psychological*? Equivocations of apriorist authority.

14-18. *The a priori as logical*. But why analyse in Kant's way? *Exclusive* correctness of Kantian analysis not to be based either (1) on its *a priori* truth, or (2) on experience of its satisfactory working. Else why should Kantians have tried to better it?

15. Kant's derivation of his analysis from psychology.

16. Even if it were satisfactory, no proof that it would be the only or the best possible.

17. If *a priori* is not in time, its superiority to the *a posteriori* merely honorific.

18. Kant's analysis neither simple nor lucid.

19-22. *A priori as psychical fact*. But if so, has it (1) been correctly described? (2) how is it distinguished from innate idea? (3) does not epistemology merge in psychology?

20. As facts *a priori* truths have a history, which must be inquired into.

21. *A priori* faculties tautologous, and

22. should not be treated as ultimate.

23. Result that science of epistemology rests on systematic confusion of alternative interpretations of apriority. The proper extension of logic and psychology.

24. Intellectualism of both apriorism and empiricism incapacitates them from recognising unity and activity of organism. How this may be recognised by deriving axioms from a volitional source by postulation.

25. Kant's recognition of postulation in ethics—its conflict with his 'critical' theory of knowledge—resulting dualism intolerable. Hence either (1) suppress the Practical Reason or preferably (2) extend postulation to Theoretic Reason.

IV. Some Characteristics of Postulation

26. Postulates at first tentative and not always successful—their various stages and common origin—the theoretic possibility of changing axioms not practically to be feared.

27. Postulates not a coherent system *inter se* except as rooted in personality.

V. The Postulation of Identity

28. Not to be derived out of nothing, but out of a prior psychical fact on the sentient level of consciousness—why consciousness itself cannot be derived—its characteristics on the sentient level.

29. Hence identity (of self) first *felt* in the coherence and continuity of mental processes, and forms basis for the postulation of identity—the practical necessity of recognising the 'same' in the 'like.'

30. Once postulated, identity proves a great success, though never completely realised in fact. Stages of identity-postulation: (1) recognition of others and objects of perception. But these change and so do not provide a stable standard of comparison. Hence (2) postulation of ideally identical selves.

31. (3) Meaning demands absolute identity and recognition leads to cognition—advantage of classification by ‘universals’ which abstract from differences.

32. (4) The use of language, *i.e. identifiable symbols*, connected with the demand for identity.

33. Logical bearings of this doctrine. The practical purpose of the judgment as the clue to the meaning of predication and as determining the limits to which abstraction shall be carried.

34. Limitations and conventions on which the logical use of identity depends.

VI. Other Postulates

35. The concurrent development of consciousness of ‘self’ and ‘other’ = the ‘external world,’ postulated to account for felt unsatisfactoriness of experience.

36. Postulation of Contradiction and Excluded Middle.

37. Hypothesis a form of postulation.

38. Causation a demand for *something* whereby we can control events. Its various formulations relative to our purposes. Sufficient Reason. The absolutely satisfactory as ‘self-evident.’ The infinite regress of reasons and causes limited by the purpose of the inquiry.

39. Postulate of ‘Uniformity of Nature.’ Suggested by gleams of regularity amid primitive chaos. Methodological advantage of postulating complete regularity. Its practical success.

40-43. *The Space and Time Postulates.* Kant’s *reine Anschauung* a hybrid between perception and conception and so a confusion of psychology and logic. Really psychological data have served as basis for conceptual constructions which are methodological postulates.

41. Construction of physical space out of sensory data. Geometrical space a construction to calculate behaviour of real bodies. Antithesis between qualities of perceptual and conceptual space—reasons for postulating the latter.

42. Alternative conceptual constructions of ‘metageometry.’ Their obscurity due to their greater complexity and uselessness. A conceptual space is *valid* in so far as *useful*, but never *real*.

43. Time: (1) subjective, (2) objective, (3) conceptual. (1) Too variable to be useful, (2) a social necessity, but relative, (3) a postulate.

44. Other postulates, *e.g.* substance, passed over.

45-47. *Postulates not yet fully axiomatic.* (1) Teleology—its derivation from the postulate of knowableness. Necessity of anthropomorphism. Rational human action teleological. Why this is not extended by science to nature. Its misuse by professed believers—possibility of future use.

46. Ultimately mechanical methods imply teleology, assuming that world is *partly* conformable to our ideals. But part being given, we must assume all. Postulation as illustrating the teleology of axioms.

47. (2) Religious postulates—personality and goodness of God—immortality.

VII. Concluding Reflections

48. The psychological possibility of instinctive postulation and its relation to logical justification.

49. The method of origins never gives complete explanation. But validity must be connected with origin. Completeness unattainable while knowledge is still growing.

50. Effects on philosophy—a return to practice and a perception of the inadequacy of intellectualism.

51. Belief in the alleged incompetence of the reason due to (1) the putting of questions which have no practical value and ultimate meaning, (2) ‘antinomies.’ But these at bottom volitional and due to a refusal to choose between conflicting aims. *E.g.* the ‘insoluble mystery of evil.’ Methodological necessity of assuming all real problems to be

soluble.

52. Gain to philosophy because (1) more responsibility felt about *voluntary* confusions of thought which (2) are more easily remedied and to which (3) the young are not pledged. Invigorating effect of Pragmatism.

I

§ 1. The first survey of his subject ought to be sufficient to appal the intending writer on almost any philosophic topic. The extent, variety, and persistence of the divergences of opinion which he finds are such that he needs to be possessed of unusual faith and courage not to despair of convincing even an unprejudiced reader—and in philosophy where shall he be found?—that his undertaking holds out any prospect of scientific advance. For it needs no little philosophic insight to perceive that these divergences, instead of discrediting Philosophy, are really a subtle tribute to its dignity. They testify that in our final attitude towards life our *whole personality* must be concerned, and tend to form the decisive factor in the adoption of a metaphysic. As soon as a metaphysic attempts to be more than 'a critical study of First Prejudices,' and essays to be constructive, it will always come upon a region where different men argue differently, and yet with equal cogency, from (apparently) the same premisses. The most reasonable explanation of this phenomenon is to admit that as the men *are* different, and differ in their experience, neither the data which have to be valued, nor the standards by which they are valued, can really be the same. Indeed, the whole history of philosophy shows that the fit of a man's philosophy is (and ought to be) as individual as the fit of his clothes, and forms a crushing commentary on the intolerant craving for uniformity which ineffectually attempts to anticipate the slow achievement of a real harmony by the initial fallacies and brusque assumptions of a 'cheap and easy' monism. It behoves the true philosopher, therefore, to be tolerant, and to recognise that so long as men *are* different, their metaphysics *must be* different, and that even so, nay for this very reason, any philosophy is better than none at all.

But though the ultimate differences of philosophic opinion are probably too deeply rooted in human idiosyncrasy to be eradicated by any force of argument, it is none the less conducive to the progress of every philosophic discussion that some common ground of (at least apparent and preliminary) agreement should be found on which the rival views may test their strength. This is accordingly what I have tried to do, though it was not without difficulty that I seemed to discover two fundamental points of initial agreement which would, I think, be admitted by nearly all who have any understanding of the terms employed in philosophic discussion. The first of these is that the whole world in which we live is experience and built up out of nothing else than experience. The second is that experience, nevertheless, does not, alone and by itself, constitute reality, but, to construct a world, needs certain assumptions, connecting principles, or fundamental truths, in order that it may organise its crude material and transmute itself into palatable, manageable, and liveable forms.

Acceptance of these two propositions does not perhaps carry us far, and I have no desire to exaggerate its controversial value. For, as soon as we attempt to go a step farther and ask what, more precisely, is this experience, out of which, and for the sake of which, it is agreed that all things are constructed, we speedily realise that we have, here also, stumbled unwittingly into a very quagmire of metaphysical perplexities. It is indeed a convenient fashion in high philosophic quarters to treat the harmless truism with the enunciation of which I have ventured to start, as the final term in a protracted course of dialectical philosophy, and to put forward Experience (written of course with very large capitals) as the ultimate explanation of all things. My excuse for not treating my readers (if any) to a similar performance must be that I have neither the heart nor the head for feats of this kind, and that they can always fall back upon the consoling dictum that experience is Experience (with the addition 'of the Absolute' thrown in, if they are very inquisitive), when they have found that my explorations in a very different direction lead to nothing interesting or valuable.

§ 2. I shall accordingly proceed to divide my question into two. If all the world be experience and what is needed to understand that experience, (1) *whose* experience is it? and (2) *of what* is it experience? To both questions again some will be satisfied to reply—'of the Absolute, of course.' If that really contents them, and is all they wish to know, they had better read no further. For my part I hold that this answer, even if it were true and intelligible, is of

no scientific or practical value whatsoever, and hence cannot be of any philosophic value either, except to votaries of philosophies which have no scientific or practical value.

To the first question, therefore, I shall make bold to answer, '*our* experience,' or, if that imply too much agreement among philosophers, and I may not take a common world for granted, more precisely, '*my* experience.'

Here again I must be prepared to be assailed by a furious band of objectors intent on asking me—"Who are you? How dare you take yourself for granted? Have you not heard how the self is a complex psychological product, which may be derived and analysed away in a dozen different ways? And do you actually propose to build your philosophy upon so discredited a foundation?"

To all this the simplicity of my humble reply may, I fear, be thought to savour of impertinence. I shall merely say "Abate your wrath, good sirs, I beseech you. I am right well aware of what you urge. Only I have observed also a few facts which in your scientific zeal you have been pleased to overlook. In the first place I notice that these analyses of the self you allude to are various, and that so the self may find safety in the very multitude of its tormentors. I observe, secondly, that the analysis is in every case effected by a self. And it always gives me a turn when the conclusion of an argument subverts its own premiss. Next I note that these analyses being the products of a self, must, if that self is (like my own) rational, serve some purpose. But unless that purpose is the highest of all (which in your case I see no reason to suppose), the validity of the whole procedure will be relative, and its value methodological. It may be excellent, therefore, for your purposes and quite unsuitable for mine. And, lastly, I observe that an analysis does not fall from heaven ready made; it is the product of a purposive activity, and however appalling it may sound, it remains *brutum fulmen* until such time as somebody *chooses* to adopt it. It is from this act of choice, then, that its real efficacy springs, and if I *choose* to analyse differently or not at all, if I find it convenient to operate with the *whole* organism as the standard unit in my explications, what right have Scribes and Pharisees to complain? For in either case the choice must be justified by its consequences, by the experience of its working, and I am not aware that anything valuable or workable has resulted from the psychological analyses in question. I am therefore sanguine that the assumption of my own existence, which I provisionally make, may very possibly turn out better and be less futile than any of the denials of the self which it may seem convenient to maintain for certain restricted and technical purposes of psychologies which neglect their proper problem in their anxiety to be ranked among the 'natural sciences.'

"As for the other, personal, question—"Who am I?"—*that* we shall see. I say *we* pointedly, because, to be quite frank, I too am still learning what I am, by experience. For unfortunately I was as little endowed with any *a priori* knowledge of myself as of anything else. Hence I can only say, provisionally, that I am *at least* what I am, and what I am capable of becoming. For I have a notion that my career is not yet over. In saying this I do not, of course, lay claim to anything unknowable; I only mean that I am not anything completely known, either to myself or any one else, until I cease to have *new* experience. And if you are content to share these humble attributes and to be selves in this sense, you are very welcome!"

§ 3. I come next to the second question—*what* is I experience? The answer must be very similar. My knowledge of the object of experience—we may call it 'the world' for short—is still imperfect and still growing. And so though I may provisionally describe it by all the ordinary phrases as 'external,' and material, and spatial, and temporal, I do not attach much value to them, and cannot honestly say that I know what it ultimately is. For I do not know what it will ultimately turn into. Not of course that I despair on that account of ultimately answering this question also to everybody's satisfaction (and especially to my own!). Only the world of knowledge always seems to be painted on an uncompleted background of the unknown, and fresh knowledge is always coming in which modifies the total impression. This knowledge is largely (or perhaps wholly) the result of guesses which I cannot help making, like my fathers before me, for practical reasons. As for the character and the details of these guesses, are they not written in the histories of human sciences and religions?

§ 4. In reflecting on these histories, however, I observe several things which seem to have no slight bearing on the question of the nature of the world and our knowledge.

(1) The world, as it now appears, was not a readymade datum; it is the fruit of a long evolution, of a strenuous struggle. If we have learnt enough philosophy to see that we must not only ask the ontological question, *What is it?* but also the profounder epistemological question to which it leads, *How do we know what it is?* we shall realise that it is a *construction* which has been gradually achieved, and that the toil thereof dwarfs into insignificance the proverbial labour *Romanam condere gentem*. As a rule we do not notice this, partly because we are taught to neglect the history of ideas for the sake of burdening our memory with the history of events (which very likely did not happen in the manner alleged), partly because the sciences have a habit of evading the verbal confession of the changes which the growth of knowledge has wrought in their conceptions. Thus the physicist continues to use the term 'matter,' although it has come to mean for him something very different from the simple experiences of hardness and resistance from which its development began, and although he more and more clearly sees both that he does not know what 'matter' ultimately is, and that for the purposes of his science he does not need to know, so long as the term stands for something the behaviour of which he can calculate.

§ 5. (2) I observe that since we do not know what the world is, we have to find out. This we do *by trying*. Not having a ready-made world presented to us the knowledge of which we can suck in with a passive receptivity (or rather, *appearing to have* such a world to some extent only in consequence of the previous efforts of our forerunners), we have to make experiments in order to construct out of the materials we start with a harmonious cosmos which will satisfy all our desires (that for knowledge included). For this purpose we make use of every means that seems promising: we try it and *we try it on*. For we cannot afford to remain unresistingly passive, to be impressed, like the *tabula rasa*^[1] in the traditional fiction, by an independent 'external world' which stamps itself upon us. If we did that, we should be stamped out. But experience is always more than this: it is either experiment or *reaction*, reaction upon stimulation, which latter we ascribe to the 'external world.' But reaction is still a kind of action, and its character still depends in part on the reacting agent. Nor have we any independent knowledge of the 'external world'; it is merely the systematic way in which we construct the source of the stimulation on which we feel ourselves to be reacting. Hence even our most passive receptivity of sensations can, and should, be construed as the effortless fruition of what was once acquired by strenuous effort, rather than as the primal type to which all experience should be reduced. In it we are living on our capital (inherited or acquired), not helping to carve out ('create') the cosmos,^[2] but enjoying the fruits of our labours (or of those of others!). Which is pleasant, but not interesting. What is interesting is the course of the active experimenting which results in the arts, the sciences, and the habits on which our social organisation rests.

I proceed accordingly to consider the mass of experiments which collectively make up the world-process and by their issue determine the subsequent course of affairs. At the outset there seems to be nothing determined, certain, or fixed about it. We may indeed shrink from the assertion of an absolute indeterminism, but it is certain that we cannot say what made or determined the character of the first reaction, and that the first establishment of a habit of reaction is a matter of immense difficulty. And to a less extent this indeterminateness persists as the structure of the cosmos grows. The world is always ambiguous, always impels us at certain points to say, 'it may be,' 'either . . . or,' etc.^[3] Nor were it well that it should grow rigid, unless we were assured that it would set in forms we could not wish to change. As it is, we have no absolute nor initial rigidity. All determinations are acquired, all are ratified, by their working; nothing can be said to be absolutely exempt from modification and amendment by experience of its working.

The intellectual cosmos also neither has nor needs fixed foundations whose fixity is an illusion. Like the physical universe it is sustained by the correspondence and interplay of its parts; or, if we prefer it, floats freely in a sea of the unknown, which now and again buffets it with its waves, but across which the sciences have established well-travelled routes of intellectual intercourse.

The cosmos grows, as we have said, by experiment. Such experiment may have been random at first (as for methodological purposes we shall be prone to assume); at all events it was vague, and its prescience of its issue was probably obscure. In any case its direction is ultimately determined not so much by its initial gropings as by the

needs of life and the desires which correspond to those needs. Thus the logical structures of our mental organisation are the product of psychological functions.^[4]

It must next be admitted that when it is said that the world is constructed by experiment, the conception of experiment is taken very widely and in a way that extends far beyond the conscious experiment of the scientist who is fully aware of what he does and what he wants, and precisely controls all the conditions. Of the 'experimenting' which builds up the cosmos the scientific experiment is only an extreme case which even now is comparatively rarely realised. Most of the experimenting that goes on is blind or very dimly prescient, semiconscious or quite unconscious. To what extent there is consciousness of the experimenting depends of course on the mental development of the beings engaged in it; for while in the lowest it is infinitesimal, the more intelligent they become the more capable they are of taking the experimenting into their own hands.

But from the experimenting itself there is no escape; it goes on, and if we refuse to experiment, we *are experimented with*. Nay, in this sense we are all nature's experiments, attempts to build up a world of beings that can maintain themselves permanently and harmoniously. We are asked as it were, "Can you do this?" and if we cannot or will not, and "do not answer," we are eliminated. The elimination which is involved in this experimenting habit of nature's has in modern times been widely recognised, under the name of Natural Selection; its essence is that a large number of individuals and varieties should be produced *on trial* (as 'accidental variations' or *Θεία μοίρα*), and that upon those that stood their trials best should devolve the duty of carrying on the world. The conception of Natural Selection was suggested by human selection; its procedure by trying is so far analogous to that of our own intelligence, and it is denied to be that of an intelligence only because of a misunderstanding of the methodological character of the postulate of indefinite variation.^[5] We may therefore plausibly contend that if a superhuman intelligence is active in the forming of the cosmos, its methods and its nature are the same as ours; it also proceeds by experiment, and adapts means to ends, and learns from experience.

We see then that there are two excellent reasons for conceiving the notion of experiment so broadly. In the first place it becomes possible thereby to comprehend under one head the infinite complications and gradations which are possible in the consciousness of the experimenter, from the most random restlessness and the most blindly instinctive adaptations, to the most clearly conscious testing of an elaborate theory; in the second, it serves to bring out the radically tentative tendency which runs through the whole cosmos. And if the propriety of a phrase may be held to atone for the impropriety of a pun, we may sum up our result by saying that the clue to experience must be found not in words but in deeds, and that the method of nature and the true method of philosophy is not a *Dialectic* but a *Trialectic*.

§ 6. (3) In describing our activity in constructing the world by experimenting or making trial, I may seem to have ignored the subject-matter of the experiment, *that in which* and the conditions *under which* we experiment. But of course I have no intention of denying the existence of this factor in our experience and, consequently, in our world.

We never experiment *in vacuo*; we always start from, and are limited by, conditions of some sort. Just as our experiment must have some psychological motive to prompt it and to propel us, so it must be conditioned by a resisting something, in overcoming which, by skilfully adapting the means at our disposal, intelligence displays itself. Let it be observed, therefore, that our activity always meets with resistance, and that in consequence we often fail in our experiments.

But while there can be no dispute as to the fact of this resistance, there may be not a little as to its nature, and no slight difficulty about defining it with precision. It would be pushing Idealism to an unprofitable extreme to revert at this point to the ancient phrases about the Self positing its Other and so forth. But the opposite and more usual device of dubbing it an objective or material world which exercises compulsion upon us, is also not free from objection.

For what is so misleading about this traditional manner of talking is that it implies just what we have seen to be untrue, viz. that there is an objective world given independently of us and constraining us to recognise it. Whereas really it is never an independent fact, but ever an aspect in our experience, or better still, a persisting factor in it, which we can neither isolate nor get rid of. Hence, however far back we essay to trace it, we can never say either

what it is really and in itself, or that it has disappeared. If we take it as it appears in our experience as now organised, we are, similarly, met with the difficulty that what it now is is nothing definitive, but merely a term in a long development the end of which is not yet in sight. And if, led by such considerations, we look forward and declare that the objective world most truly is whatever it develops into, who will take it upon himself to prophesy concerning its future developments, and guarantee that it will always remain objective in the way it is at present, that it will continue to resist and constrain? For already it is only partially true that it constrains us; it is becoming increasingly true that we constrain it, and succeed in moulding it into acceptable shapes. In what sense, therefore, should we continue to call 'objective' a world which had ceased to be objectionable and had become completely conformable and immediately responsive to our every desire?

The truest account, then, it would seem possible to give of this resisting factor in our experience is to revive, for the purpose of its description, the old Aristotelian conception of 'Matter' as ὕλη δεκτική τοῦ εἶδους, as potentiality of whatever form we succeed in imposing on it. It may be regarded as the raw material of the cosmos (never indeed wholly raw and unworked upon), out of which have to be hewn the forms of life in which our spirit can take satisfaction. To have lost this sense of 'matter,' in the effort to render its notion more precise and useful for the purposes of the natural sciences, is a real loss to philosophy. And yet the notion of matter as an indeterminate potentiality which, under the proper manipulations, can assume the forms we will, reasserts itself *de facto* whenever the great physicists set themselves to speculate respecting the 'ultimate constitution of Matter.' For provided only that their results enable them to calculate, more or less, the behaviour of sensible matter, they never hesitate to calculate into existence new 'ethers' and modes of matter and to endow them with whatever qualities their purpose demands and their imagination suggests.

§ 7. (4) The world, then, is essentially ὕλη, it is what we make of it. It is fruitless to define it by what it originally was or by what it is apart from us (ἢ ὕλη ἀγνωστος καθ' αὐτήν); it is what is made of it. Hence my fourth and most important point is that the world is *plastic*, and may be moulded by our wishes, if only we are determined to give effect to them, and not too conceited to learn from experience, *i.e.* by trying, *by what means* we may do so.

That this plasticity exists will hardly be denied, but doubts may be raised as to how far it extends. Surely, it may be objected, it is mere sarcasm to talk of the plasticity of the world; in point of fact we can never go far in any direction without coming upon rigid limits and insuperable obstacles. The answer surely is that the extent of the world's plasticity is not known *a priori*, but must be found out by trying. Now in trying we can never start with a recognition of rigid limits and insuperable obstacles. For if we believed them such, it would be *no use* trying. Hence we must assume that we can obtain what we want, if only we try skilfully and perseveringly enough. A failure only proves that the obstacles would not yield to the method employed: it cannot extinguish the hope that by *trying again* by other methods they could finally be overcome.

Thus it is a *methodological necessity* to assume that the world is *wholly plastic*, *i.e.* to *act as though* we believed this, and will yield us what we want, if we persevere in wanting it.

To what extent our assumption is true in the fullest sense, *i.e.* to what extent it will work in practice, time and trial will show. But our faith is confirmed whenever, by acting on it, we obtain anything we want; it is checked, but not uprooted, whenever an experiment fails.

As a first attempt to explain how our struggle to mould our experience into conformity with our desires is compatible with the 'objectivity' of that experience, the above may perhaps suffice, though I do not flatter myself that it will at once implant conviction. Indeed I expect rather to be asked indignantly—'Is there not an objective nature which our experiments do not make, but only discover? Is it not absurd to talk as if our attempts could alter the facts? And is not reverent submission to this pre-existing order the proper attitude of the searcher after truth?'

The objection is so obvious that the folly of ignoring it could only be exceeded by that of exaggerating its importance. It is because of the gross way in which this is commonly done that I have thought it salutary to emphasise the opposite aspect of the truth. We have heard enough, and more than enough, about the duty of humility and submission; it is time that we were told that energy and enterprise also are indispensable, and that as soon as the

submission advocated is taken to mean more than rational methods of investigation, it becomes a hindrance to the growth of knowledge. Hence it is no longer important to rehearse the old platitudes about sitting at the feet of nature and servilely accepting the kicks she finds it so much cheaper to bestow than halfpence. It is far more important to emphasise the other side of the matter, viz. that unless we ask, we get nothing. We must ask often and importunately, and be slow to take a refusal. It is only by asking that we discover whether or not an answer is attainable, and if they cannot alter the 'facts,' our demands can at least make them appear in so different a light, that they are no longer *practically* the same.

For in truth these independent 'facts,' which we have merely to acknowledge, are a mere figure of speech. The growth of experience is continually transfiguring our 'facts' for us, and it is only by an *ex post facto* fiction that we declare them to have been 'all along' what they have *come to mean for us*. To the vision of the rudimentary eye the world is *not* coloured; it becomes so only to the eye which has developed colour 'sensitiveness': just so the 'fact' of each phase of experience is relative to our knowledge, and that knowledge depends on our efforts and desires to know. Or, if we cling to the notion of an absolutely objective fact of which the imperfect stages of knowledge only catch distorted glimpses, we must at least admit that only a final and perfect rounding-off of knowledge would be adequate to the cognition of such fact. The facts therefore which *we* as yet encounter are not of this character: it may turn out that they are not what they seem and can be transfigured if we try. Hence the antithesis of subjective and objective is a false one: in the process of experience 'subject' and 'object' are only the poles, and the 'subject' is the 'positive' pole from which proceeds the impetus to the growth of knowledge. For the modifications in the world, which we desire, can only be brought about by our assuming them to be possible, and *therefore* trying to effect them. There is no revelation either of nature or of God, except to those who have opened their eyes; and we at best are still self-blinded puppies.

Even the notion that the appearances which reality assumes to our eyes may depend on the volitional attitude which we maintain towards them is a truism rather than an absurdity,^[6] and nothing is more reasonable than to suppose that if there be anything *personal* at the bottom of things, the way we behave to it *must* affect the way it behaves to us. The true absurdity, therefore, lies in our ignoring the most patent facts of experience in order to set up the Moloch of a rigid, immutable and inexorable Order of Nature, to which we must ruthlessly immolate all our desires, all our impulses, all our aspirations, and all our ingenuity, including that which has devised the very idol to which it is sacrificed!

§ 8. The above sketch of the nature and manner of the process which has moulded us and the world of our experience may have seemed to bear but remotely on the relations of Axioms to Postulates. In reality, however, it will be found that the whole subsequent argument has already had its main lines mapped out by our introductory discussion of the *Weltanschauung* which Prof. James has called *pragmatism* and *radical empiricism*.^[7] For when, as we must do, we apply it to the theory of our cognitive faculties and the first principles whereby in knowledge we elaborate our experience (§ 1.), it leads to a very distinctive treatment of epistemological problems, differing widely from those traditionally in vogue. It follows that the general structure of the mind and the fundamental principles that support it also must be conceived as growing up, like the rest of our powers and activities, that is, by a process of experimenting, designed to render the world conformable to our wishes. They will begin their career, that is, as *demands* we make upon our experience or in other words as *postulates*, and their subsequent sifting, which promotes some to be axioms and leads to the abandonment of others, which it turns out to be too expensive or painful to maintain, will depend on the experience of their working.

The contrast with both of the traditional accounts of the matter, both that of the old empiricism and of epistemological apriorism is well marked, and I hope to show that its superiority is no less palpable.

The truth is that both the traditional accounts of the nature of Axioms are demonstrably wrong, and though to give such a demonstration may appear a digression, it will ultimately facilitate our progress. I shall accordingly indulge in a criticism, which will show that the axiomatic first principles, whereby we organise and hold together our knowledge, are neither the products of a passive experiencing, nor yet ultimate and inexplicable laws or facts of our

mental structure, which require from us no effort to attain comprehension but only recognition and reverence as ‘*a priori* necessary truths.’ In the case of empiricism the criticism will be comparatively brief and easy, because its inadequacy is pretty generally conceded; apriorism will demand a lengthier and more difficult discussion, because it has attempted to conceal its inadequacy behind so many technicalities of language, so many obscurities of argumentation and a fundamental duplicity in its standpoint.

II

§ 9. Taking then the old empiricism first, we observe that there seems to be little doubt about its standpoint. Its derivation of the axioms is frankly psychological, and describes how the mind may be conceived actually to come by them. Its psychology is doubtless mistaken, and its recourse to psychology to settle the problem of knowledge may often be crudely worded, but it propounds a definite method of answering a real question. And we are at least free from the perplexities which arise in apriorism when an argument is conducted on two planes at once, the psychological and the epistemological (logical), and the relations of the two are left carefully undefined.

Secondly, it should be noted that empiricist psychology is at bottom quite as much infected with intellectualism as that of the apriorists. It conceives, that is, the experience which yields the elements of our mental structure as cognitive (‘impressions,’ ‘ideas,’ etc.); it does not place the central function of mental life in volitional striving and selective attention. Now intellectualism, though it may lend itself to many descriptive purposes in psychology and hence will probably never wholly disappear, is ultimately a misdescription of mental life even as psychology, while it is essentially incapable of connecting itself with the wider biological context, in which the organism is conceived as reacting on its environment, or with the higher ethical plane, on which it is conceived as a responsible *person*.

I pass to the graver counts of the indictment. Empiricism conceived a purely passive mind as being moulded by an already made external world into correspondence with itself in the course of a process of experience which overcame whatever native refractoriness the mind possessed.^[8] Hence we come by our belief that every event has a cause in consequence of the *fact* that there are causes in nature, and that this eventually impresses itself upon us; two and two make four, because there are units which behave so, and we must count them thus and not otherwise, though in another world, as Mill consistently observed, they might insist on making five, and force upon us a new arithmetic. So also it is because nature *is* uniform that an unbroken series of inductions *per enumerationem simplicem* hammers into us the principle of the ‘uniformity of nature.’

To all this the fatal objection holds that these principles cannot be extracted from experience because they must already be possessed before experience can confirm them. Hume’s simple discovery, that the connection of events which all assume is never a fact of observation, is as awkward for empiricism as for apriorism. Unless, therefore, we look upon the succession of events as possibly regular, it can yield no evidence of a principle of regularity; until we count them, things are not numbered, until we look for order, order does not appear. In the case of the uniformity of nature Mill indeed practically concedes this; he admits (*Logic*, bk. iii. ch. iii. § 2, and ch. vii. § 1) that “nature not only is uniform, but is also infinitely various,” that some phenomena “seem altogether capricious,” and that “the order of nature as perceived at a first glance presents at every instant a chaos followed by another chaos.” Now if this is still true of the impression produced on us by nature, whenever we assume the receptive attitude of a disinterested observer, how much more of a chaos must nature have appeared to the primitive intelligence which had yet to lay down the fundamental principles of cosmic order?^[9]

The truth is that the whole empiricist account of the derivation of axioms is *not* psychological history experienced by the primitive mind: like so much ‘inductive logic’ it is at best an *ex post facto* reinterpretation (for logical purposes) of such experience by a reflecting mind which has already grasped, and long used, the principles of cosmic order. To the primitive mind such principles can at most be *suggested* by the regularity of phenomena like, *e.g.*, the alternation of day and night, or of organic habits (breathing, heartbeat, hunger, etc.) already acquired before reflection begins; but if mere experience were the source of axioms, such suggestions of regularity would necessarily have their effect effaced by the preponderantly chaotic character of the bulk of experience, and would be swept away by a cataract of ‘lawless’ impressions.

Again it is incumbent on us to note the difficulty of generalising the empiricist derivation of Axioms: though Empiricism is over 2000 years old, it has never been completely carried out, and few indeed would be found to envy the empiricist the task, *e.g.* of adequately deriving the Principle of Identity.

And lastly, it affords just ground for complaint that empiricism as it stands, does not really satisfy the desire the appeal to which constituted its chief charm. It does not really exhibit the derivation of the axioms in a process of experience. It asserts indeed that such a derivation occurred. But it assigns to it a date in a so remotely prehistoric and prelogical age that it is impossible to observe the details of the process. And in any case the process is complete.

Thus, according to Mill, the romance of the axioms is past before real thinking and scientific induction begin: association has engendered them, but that does not prevent them from being final constituents of the present intellectual order; once established "in the dim red dawn of man," they are exempt from further vicissitudes, and undergo no selection or real confirmation in the development of our intelligence. Thus they lay claim to the same vicious finality as their rivals the *a priori* structures of the mind: neither the one nor the other leaves room for a real growth in the intrinsic powers of the mind.

III

§ 10. But to castigate empiricism is to flog a dead horse; to go on an expedition against apriorism is to plunge into an enchanted forest in which it is easy to miss the truth by reason of the multitude of "universal and necessary truths" which bar one's way.

At first, indeed, nothing seems easier and more obvious than the considerations upon which apriorism is based. If there are certain truths which are necessary to all knowing, which are implied in the existence of every act of knowledge, if these truths cannot be derived from experience because they are presupposed by all experience, if, as we said, we must be in possession of them before experience can confirm them, then what can we do but call them *a priori* and suppose that they reveal the ultimate self-evident structure of the mind, which we must recognise, but which it would argue impiety to question and fatuity to derive?

Nevertheless I propose to show that beneath the thin crust of this self-evidence there lie concealed unsuspected depths of iniquity, that the clearness of the doctrine is superficial and gives way to deepening obscurity the farther it is explored, that in every one of the specious and familiar phrases, which apriorists are wont to fling about as the final deliverances of epistemological wisdom, there lurk indescribable monsters of ambiguity. Nay, my criticism will culminate in a demonstration that the whole conception of an independent and autonomous theory of knowledge is afflicted with an ineradicable and incurable confusion of thought, the clearing up of which demolishes the *locus standi* of the whole apriorist position.

Let us note then in the first place that as an inference from the break-down of the old empiricism apriorism is devoid of cogency. It does not follow that because the 'necessary' truths are presupposed in all experience they are, in the technical sense, *a priori*. We must indeed be possessed of them to organise our experience, but we need *not* be possessed of them in the manner asserted. It suffices that we should hold them *experimentally*, as principles which we *need practically* and would like to be true, to which therefore we propose to give a trial, without our adoring them as ultimate and underivable facts of our mental structure. In other words they may be prior to experience as *postulates*.^[10]

§ 11. Similarly the method of postulates is capable of supplying an alternative explanation of what, since Kant, have been esteemed two infallible marks of a genuine *a priori* truth, viz. its universality and necessity. It is not enough merely to contend that these truths cannot come from experience, because experience can only give fact and not necessity (or at least not an objective necessity), and because it can never guarantee an absolute universality which applies to the future as well as to the present and past. For a postulate possesses both these valuable characteristics by as good a right as an *a priori* truth, and is not afflicted with the impotence that besets a mere record of past experience.

Its universality follows from its very nature as a postulate. If we make a demand that a certain principle shall hold, we naturally extend our demand to all cases without distinction of time, past, present, and to come. The shrinking modesty which clings to the support of precedent is out of place in a postulate. A truth which we assume because we want it may as well be assumed as often as we want it and for all cases in which it may be needed. We can make it therefore as universal as we please, and usually we have no motive for not making it absolutely universal.^[11] Nor is the enormity of a postulate lessened, or atoned for, by self-denying economy in the use of it. A postulate is none the less a postulate because it is a little one, and if in making it we sin, we may as well sin boldly.^[12]

Similarly the 'necessity' of a postulate is simply an indication of our *need*. We want it and so *must* have it, as a means to our ends. Thus its necessity is that of intelligent purposive volition, not of psychical (and still less of physical) mechanism.^[13] The inability to think them otherwise, which is supposed to distinguish necessary truths, is at bottom a *refusal* to do so, a refusal to strip oneself of useful means of harmonising one's experience at the summons of a casual doubt. To argue, then, from the universality and necessity of our axioms to their *a priori* origin is a *non sequitur* which should not be allowed to pass unchallenged, even if there were no alternative theory in the field.

§ 12. Let us consider next the possible meanings of the phrase 'a condition of all possible experience.' When an *a priori* truth is so denominated, what is the precise meaning attached to 'condition'? Does it mean that without which experience cannot *be*, or cannot *be thought*, or cannot be thought *in an aesthetically pleasing or ethically satisfactory manner*? Evidently we ought to distinguish between a truth which is operative as a psychical antecedent fact *causing* the subsequent experience and a logical factor which is detected in that experience by subsequent reflection, but need not be actually present in consciousness at the time of experiencing, and so cannot be called a psychical fact. In the latter case the 'condition of the possibility of experience' is not anything actually necessary to the experience, but rather necessary to its *ex post facto* reconstruction which ministers to our desire for the logical ideal of an intelligible system of experience.

And of course the answer to the question—what are the conditions of thinking such a logical system?—will depend on the mode of logical analysis we may choose to adopt: hence the burden of proof will rest with the advocates of any particular form of apriorism that their account is the *only one* possible.

All these considerations may be urged with still greater force against versions of the *a priori* conditions of experience which reduce themselves to demands (it is true for the most part semi-conscious and unavowed) that the cosmos shall conform to various aesthetical and ethical ideals: such demands may be entirely legitimate in their way, and I myself would be the last to think the worse of any philosopher for showing susceptibility to ethical and aesthetical ideals, and holding that their realisation also is included in the conditions of a thoroughly rational experience. But should they not be avowed as such? and is it not entirely improper to mask them under the ambiguity of 'the conditions of experience'? There remains then only the first interpretation, which takes the 'condition' to be an actual psychical fact, and so decides in one way the very debatable question which must next engage our attention.

§ 13. What does *a priori* mean? When we speak of 'the *a priori* principles implied in the existence of all knowledge,' do we mean implied *logically* or *psychologically*? Are they, that is, the products of a *logical analysis* or *psychical facts*? Is the 'priority' asserted priority *in time* (psychical fact) or priority *in idea* (logical order)? Or, *horribile dictu*, can it be that the *a priori*, as it is used, is a little of both, or each in turn, and that the whole apriorist account of our axioms rests on this fundamental confusion?

Of course it would be very pleasant if we could answer this question by an appeal to authority, if we could find, for choice in Kant, or, if not, in some of his followers and interpreters, an unambiguous and authoritative settlement of this question. But unfortunately Kant's own utterances are so obscure, ambiguous, and inconsistent, and his followers are in such disagreement, that this short and easy way is barred, and that we shall have to adopt the longer, and perhaps more salutary, method of arguing out the logical possibilities of each interpretation.

§ 14. I shall, accordingly, begin by considering the interpretation of the *a priori* as a term in a logical analysis, as it seems on the whole to be that best supported and most supportable.

If we take the *a priori* as the outcome of a logical inquiry, as the product of a logical analysis describing how the formation of knowledge out of its constituent factors is to be conceived, if the world is to be thinkable (*i.e.* to satisfy our logical ideals), then the first point of which we shall require an explanation is *how we come by* these factors. In the Kantian analysis knowledge is said to arise out of the union of heterogeneous elements, Sensation and Thought, the former supplying the Matter, the latter the Form. But what authenticates Kant's fundamental antithesis of Matter and Form, Sensation and Thought, so that it should be imperative on every one to set out from it in his analysis of the nature of knowledge? Why are we not to be at liberty to conduct our analysis in whatever way and by whatever principles appear to us most suitable? Why should we be tied down to Kant's factors? Has not Mr. Shadworth Hodgson recently shown that it is possible to construct a logical analysis of knowledge as elaborate and careful as Kant's (though perhaps just as unsound ultimately) without having recourse to a use of *a priori* principles? Or better still, should we not do well to go back to Aristotle and find in his antithesis of mediate and immediate, discursive and intuitive, the basis of an analysis quite as legitimate in theory and far more fertile in practice? Is it not in short an unavoidable methodological defect of any 'epistemological' argument that it must rest on an *arbitrary selection* of fundamental assumptions?

So far as I can see, the *exclusive* claims of the Kantian analysis could be defended only in two ways. It might be alleged that the recognition of its truth was itself an *a priori* necessity of thought. Or it might be contended that its correctness was guaranteed by the manner of its working, by our finding that, as a matter of subsequent experience, it *did* enable us to account rationally for all the observed characteristics of our knowledge.

But would not the first defence be exposed to the crushing retort that it begged the question, and was nothing more than a circular argument which tried to make the unsupported allegation of a necessity of thought into the logical ground of that allegation?

The second defence on the other hand seems obnoxious to a double objection. In the first place has it not a pronounced empiricist trend, and is it consonant with the dignity of apriorism to introduce a sort of transcendental 'payment by results' into the estimation of theoretical philosophemes? And secondly, if we answer thus, it will be necessary, but not easy, to show that *de facto* the Kantian epistemology gives a complete and satisfactory answer to the whole problem. And I hardly anticipate that the distinguished philosophers who have devoted their lives to proving the necessity of going beyond Kant to Fichte, or Hegel, or Herbart, or Schopenhauer, because of the glaring defects they have found in Kant's system, will find it to their taste so to defend the Kantian position, even though it has supplied them with the common foundation of their several systems. We must either deny, therefore, that the truth of the Kantian analysis of knowledge is vouched for by its self-evident adequacy, by the pellucid cogency of its constructions, or assert that the whole procession of philosophers that has started from Kant has gone hopelessly astray.

But after all it is not we who are concerned to find our way past the uninviting horns of this dilemma; whether the Kantian analysis of knowledge is perfect and his followers have erred in amending it, or whether it is fundamentally wrong and his followers have erred in continuing it, the point which has now aroused our curiosity is what guarantees it offers for the correctness of its presuppositions. Let us turn, therefore, to the history of philosophy and inquire whence as a matter of fact Kant derived the presuppositions of his analysis.

§ 15. I greatly fear the answer will be shocking. Kant's whole construction seems to be based on psychology, nay on the psychology of the period! How can this be reconciled with the assiduity with which the dominant school of Kant-Pharisees has preached that epistemology and psychology have nothing to do with each other and that the former must be kept quite clear from contamination with the latter? After it has been so long and laboriously instilled into us that subservience to psychology is the one deadly sin which the good epistemologist must shun, that psychology is the wicked realm of Hume, Mill, and the Devil, have we not a right to be shocked when we find that Kant himself has distilled his *elixir vitae* from this broth of Hell? Is it not intolerable then to force us to employ psychological assumptions as to the nature of mind? For even though it is permitted to receive instruction from a foe, we know that it is prudent to dread the Danaans even when they are bearing gifts.

And yet the facts are hard to argue away. Is not the antithesis between the ‘matter’ of sensation and the ‘form’ of thought the old psychological distinction invented by Plato? Again has it not often been shown^[14] that in its conception of the ‘manifold of sensation’ the Kantian system presupposes all the figments of an empiricist psychology, and implies the very psychological atomism which the whole subsequent history of philosophy has shown to be unworkable, and which the simplest introspection shows to be untrue? And is it not in a large measure because he vainly and falsely follows, nay outdoes, Hume in assuming a wholly unformed and unfounded *ὄλη* of sensations, which not all the *a priori* machinery made in Germany can ever really lick into shape, that Kant’s epistemology breaks down?

And what Kant adds to this psychological mixture of Platonic dualism and Humian atomism is a no less unoriginal ingredient. It consists simply of a number of faculties, invented *ad hoc*, upon which devolves the duty (which we are vainly assured they are capable of fulfilling) of organising the formless matter with which they are supplied. But does not this commit the Kantian theory of knowledge to another psychological fallacy, the effete and futile doctrine of faculties? In fine what answer should we be able to make, nay how should we disguise our sympathy, if an *enfant terrible* should arise and declare that so far from being uncontaminated with psychology Kantian epistemology was in reality nothing but a misbegotten cross by faculty psychology out of Humian atomism?

I have never been able to discover from the apriorists what they conceive to be the relation of logical analysis to psychological fact, *i.e.* the actual process of experience, but if, as experience shows, some reference to the latter occurs, and is indeed inevitable, we may at least demand that the reference should be made clear and explicit. And in addition it may fairly be demanded that if a theory of knowledge cannot but rest on presuppositions as to the factual nature of conscious life, recourse should be had to psychological descriptions of the best and most modern type, before an attempt is made to decide what super- or extra-psychological principles are ‘implied in the existence of knowledge.’

§ 16. It would seem then that the attempt to construe the *a priori* as a logical analysis independent of psychological fact is not practicable, and cannot really dispense with an appeal to psychological assumptions which are arbitrary and exploded. But the difficulties of this theory of the *a priori* by no means end here. Supposing even that somehow, aided, let us say, by some spiritual influx from a noumenal world, we had succeeded in constructing a complete account of the structure of knowledge which satisfied every logical requirement, worked perfectly, and was applicable to everything that could be called knowledge, even so we should have gained an æsthetical rather than logical advantage. Our epistemology would be beautiful, because great and symmetrical, but would it be indisputably true? Could we not conceive some other philosopher gifted with an equally synoptic imagination setting himself to compete with our lovely construction, and succeeding, perhaps, in throwing it into the shade of oblivion by a rival structure based on different assumptions, built up by different connections and excelling its predecessors in completeness, simplicity, and æsthetic harmony?^[15]

Theoretically at least *any number* of such analyses of knowledge would seem to be possible; for they have only to construct imaginary logical systems, to describe how knowledge *may be conceived* to be put together, without restriction as to the choice of principles assumed and without reference to what actually occurs *in rerum natura*. It would need therefore the decree of some absolute and infallible despot of the intelligible world to secure for whatever *a priori* account was preferred—on account of its simplicity or æsthetic completeness or practical convenience—a monopoly of epistemological explanation.

§ 17. However, even this may be conceded. I am in a yielding mood and not disposed to cavil or to stick at trifles, and so will not contest the right divine of Kant and his dynasty—he has too great a bodyguard of philosophy professors.

I proceed only to point out a consequence of the attempt to construe the *a priori* logically without reference to psychical fact. It follows that its priority is *not in time*. For the whole matter is one of logical analysis. The actual knowledge, which the epistemologist professes to analyse, is then the real fact, and prior to the analysis which professes to explain it. It is the actual presupposition of the analysis which distinguishes in it an *a priori* and an *a*

posteriori element. Thus in actual fact the *a priori* and *a posteriori* elements in knowledge are coeternal and co-indispensable, even though not esteemed co-equal. The priority therefore of the *a priori* is solely an honorific priority in dignity. *A priori* and *a posteriori* are merely eulogistic and dyslogistic appellations, which we are pleased to bestow upon factors which we are pleased to distinguish in one and the same act of knowledge. In the concrete reality they are fused together; there is no form without matter and no matter without form—συνεξεύχθαι μὲν γὰρ ταῦτα φαίνεται καὶ χωρισμὸν οὐ δέχεσθαι.^[16]

Now if this be the case, I cannot for the life of me see why such inordinate importance should be attached to the distinction of *a priori* and *a posteriori*, nay to the whole epistemological theory, nor why the naming and precedence of such abstractions should be accounted essentials of philosophic salvation. What now hinders us from inferring from the course of the argument that the procedure and terminology of our epistemological analysis is arbitrary and indifferent, and that the real test of truth comes, not from any distinctions we assume beforehand, but *a posteriori* and *empirically* from the manner of its working?

§ 18. As far as the Kantian analysis of knowledge is concerned, the issue can be narrowed down to this question, whether it works, and is the simplest and most convenient analysis that can be devised. If such a contention on its behalf can be substantiated, let it be called true, in the only sense in which mortal man can intelligibly speak of truth; if not, let it be finally housed in that 'Museum of Curios' which Prof. James has so delightfully instituted for the clumsy devices of an antiquated philosophy.^[17]

Now this is a question which I could not presume to answer for others without a thorough knowledge of their tastes and customs of thought; but personally I have long felt towards the Kantian epistemology not much otherwise than Alphonso the Wise felt towards the Ptolemaic astronomy when he realised its growing complications; and if by incantations or recantations or decantations I could induce its author to leave the society and the *otium cum dignitate* of the Thing-in-itself, I would fain relieve my feelings by apostrophising him as follows:—

'Oh mighty Master of both Worlds and both Reasons, Thinker of Noümena, and Seer of Phenomena, Schematiser of Categories, Contemplator of the Pure Forms of Intuition, Unique Synthesiser of Apperceptions, Sustainer of all Antinomies, all-pulverising Annihilator of Theoretic Gods and Rational Psychologies, I conjure thee by these or by whatever other titles thou hast earned the undying gratitude of countless commentators, couldst thou not have constructed the theory of our thinking activity more lucidly and more simply?'

§ 19. At this point it would seem to be time for believers in the *a priori* to shift their ground and to try another version of its meaning. I expect to be told, and in no measured terms, that I have misinterpreted and maligned Kant, and blasphemed against the sacred image of immutable truth which he has set up. Epistemological analysis is not the arbitrary pastime of an idle imagination, ἐνδεχόμενον ἄλλως ἔχειν in myriad ways. *A priori* truths are facts which can neither be nor be conceived otherwise, and without which no other knowledge can be or be conceived.

"You will not surely," I shall indignantly be asked, "deny that you think by the principle of identity, that you predicate the categories of substance and causality, that you refer your experiences to a synthetic unity of apperception, that you behold them in space and time? And we call these operations *a priori*, to indicate that without them you cannot know or experience anything at all."

Very well, then, let us recognise the *a priori* truths as facts. If it is on this condition alone that I may use them, I will gladly grovel in the dust before them rather than that they should withdraw the light of their countenance and I should be cast into outer darkness. Still I cannot but hope that the said light is not so blinding that I cannot behold their *features*. Permit me, therefore, to trace them and to bask in their beauty.

The *a priori* axioms are facts—real, solid, observable, mental facts—and woe betide the philosopher that collides with them! In one word they are *psychical facts* of the most indubitable kind.

My delight at having found something tangible at the bottom of so much obscure terminology is so sincere that I have not the heart to be critical about their psychological credentials. Let me waive, therefore, the question, mooted before, whether they have always been described with psychological accuracy, and by the best psychological

formulas. I waive also the cognate question whether their description suffices to distinguish them unequivocally from their discredited ancestors, the innate ideas, which since Locke we have all been taught to deny with our lips. I will postpone also an obvious question as to what is now to prevent the theory of knowledge from being absorbed in psychology. For I have no wish to “sycophantise” against an argument which bids fair to become intelligible.

§ 20. But of course I cannot close my eyes to the consideration that observable psychical facts *have a history*. The *a priori* axioms, therefore, may be contemplated *historically*, and *psychogenetically*; and then, perhaps, the valet within me whispers, it will turn out that they were not always such superhuman heroines as they now appear, and that they have arrived at their present degree of serene exaltation from quite simple and lowly origins. Accordingly I shade my eyes, thus, and scrutinise their countenances, so, and lo! I begin to discriminate! They do not all seem to be of an age or of equal rank; some, as Plato says,^[18] are πρεσβεία καὶ δυνάμει υπερέχουσαι. Others seem to have been admitted into the Pantheon in historic times, while yet others have been thrown into the background, or even into Tartaros. Shade of Plato! is not even the supercelestial World of Ideas exempt from change? Nay more, their manners and bearing are not uniform, and I swear by Aphrodite, I believe some are rouged and powerless to hide the ravages of age!

To carry on the imagery would be too painful, but I must adhere to its meaning. If the *a priori* axioms are in any sense psychical facts, or contained in psychical facts, each of them has a theoretically traceable history, and in many cases that history is visibly written on their faces. They are complex growths which constitute *problems* for the philosophic mind; they are in no sense solutions of the problem of knowledge, or of any other.

Whoever then can carry their analysis farther, either historically, by showing how, when, and why they arose, or logically, by systematically connecting them with and deriving them from the other constituents of our nature, or by the mixed method to which the gaps in our knowledge will probably long compel us, *i.e.* by supplementing and colligating actual observation by hypothesis, will have deserved well of philosophy, even though he will have had to sacrifice the dogma of the verbal inspiration of the Kantian Criticism.

§ 21. Any such further inquiry into axioms, therefore, is necessarily preferable to any view which is content to leave them *plantées là* as insuperable, indissoluble, unquestionable, ultimate facts which obstruct the advance of science by their unintelligibility. For what could be more disheartening than to encounter this serried array of *a priori* ‘necessities of thought’ entrenched behind craftily contrived obstructions of technical jargon, and declining to yield or to give any account of themselves?

Can we indeed, so long as we tolerate their pretensions, be truly said to have explained the nature of knowledge at all? For what do they do to explain it? What do they do beyond vainly duplicating, as μάταια εἶδη, the concrete processes of actual knowing? At best they seem nothing but the *capita mortua* of a defunct faculty psychology, which offers us only a tautological δύναμις in lieu of the ἐνέργεια whereof we desired an explanation.

I have experience of the spatially extended—forsooth, because I am endowed with a ‘pure’ faculty of space perception! I experience succession—forsooth, because I have the ‘pure’ form of empty time! I refer my experience to my ‘self,’ and the operation is ‘explained’ by being rebaptised in the name of the Synthetic Unity of Apperception!

I know of course that Kant supposed himself to have guarded against this interpretation and the criticism which it provokes, by denying that the ‘pure intuition’ of Space or Time is *a priori* only in the sense in which, *e.g.* the colour sense is prior to the colour perception.^[19] But I should dispute his right to do this, and contend that in so far as he succeeded in establishing a difference, it was only at the cost of making the ‘pure intuition’ prior to experience in the evil psychological sense of the ‘innate idea.’^[20]

§ 22. “But is not this whole indictment based on a refusal to recognise the axioms as ultimate? And what do you hope to gain thereby? For surely you do not mean to refuse to recognise anything as ultimate? And what more deserving objects could you find for such recognition than the body of necessary truths?”

Certainly I do not in the least mean to commit myself to a denial of anything ultimate. Every inquiry must stop, as it must begin, somewhere. Only I am disposed to deny that we should stop with the ‘necessary truths.’ And I urge that

if by one method a fact (under investigation *in pari materia*, of course) appears ultimate, which by another is easily susceptible of further analysis, then the latter method is logically superior. And I contend also that the so-called *a priori* truths do not look ultimate, and that it is highly disadvantageous to treat them as such: I am preparing to contend that upon proper investigation they turn out to be certainly derivative, and that a knowledge of their ancestry will only increase the regard and affection we all feel for them.

It appears, then, that if *a priori* truth be taken as psychical fact, it is arbitrary to treat it as ultimate, and that we have every motive to connect it with the rest of our mental constitution. We have thereby completed the proof that the apriorist account of our axiomatic first principles is invalid, in whichever way it is consistently taken.

§ 23. But then it never is consistently taken. Neither in Kant nor in any of his successors is either interpretation of the *a priori* consistently adhered to. When objections are raised against the manifestly fictitious nature of its psychological foundations, all connection with psychology is indignantly disavowed. If, on the strength of this disavowal, the whole theory of knowledge is treated as a pretty structure which need comply only with logical canons of formal consistency, the actual reality and *de facto* use of the axioms is thrust down our throats.

And the worst of it is that this duplicity of attitude is unavoidable. For it is in truth essential to the whole epistemological point of view. There is no room for a separate theory of knowledge with a peculiar standpoint, if we assign to psychology and logic the whole field that each of them can and ought to occupy.^[21] In the so-called theory of knowledge the primary problem is psychological; it is a question of the correctest and most convenient *description* of what actually occurs in acts of knowing, *i.e.* a question of psychological fact. To logic on the other hand it appertains to estimate the *value* of all these cognitive processes: all questions as to whether the judgments that claim truth actually attain it, as to how cognitions may be rendered consistent, may realise the purposes which we have in knowing, may contribute to the ideals we set before ourselves in knowing, fall into the province of the science which aims at systematising our cognitions into a coherent body of truth. Between these two what remains for epistemology to do? From what point of view, and with what purpose is it to treat knowledge, if both the facts and their valuation are already otherwise provided for? It is not a normative science like logic, and it is not descriptive science like psychology. And the 'critical' question—*how do we know?*—important though it is in itself, surely does not suffice to found a science. For the question cannot be answered unless it is asked on the basis of definite facts and with a definite aim in view. And whenever it is answered, the answer will always be found to be in terms either of psychology or of logic.

§ 24. As the outcome of our criticism of the two current theories of the nature of our axioms we have arrived at the conclusion that neither the apriorist nor the empiricist account is tenable. Both have proved unsatisfactory; the former because it represented the axioms as mere brute facts of our mental organisation (either entirely disconnected or connected only among themselves), the latter as the fictitious imprints of a psychologically impossible experience on a purely passive mind.

At bottom the failure of both accounts springs from the same source. Both are infected with an intellectualism which is a libel on our nature, and leads them to take too narrow a view of its endowment. Because of this common intellectualism they fail to realise the central fact which we always encounter so soon as we abandon the abstract standpoints of the lower sciences and try to conceive our relation to our experience as a whole, the fact that the living organism *acts as a whole*. Or to bring out separately the aspects of this central fact which empiricism and apriorism severally misinterpret, we may say that *the organism is active and the organism is one*.

Empiricism, with its fiction of the *tabula rasa*, fails to appreciate the first aspect; to see that, even in its reactions on its environment, the organism is active, reacting in a mode decided by its own nature and guided by its aspirations towards a harmony of its experience. Its whole attitude is one of volition and desire, which is ultimately a yearning for the Apocalypse of some unearthly ideal of harmonious equilibration in its whole experience, and for the attainment of this end the whole intellectual apparatus is a means.^[22]

In short, the *πρότον ψεύδος* of the old empiricism is to have failed to recognise this fact of living activity and its bearing on the growth and constitution of the mind.

Again the organism is *one* and reacts as a whole. This is what apriorism fails to appreciate. In the fierce struggle for existence we need all our forces, and require a compact control of all our resources to survive. The organism, therefore, cannot afford to support a disinterested and passionless intelligence within it, which hovers unconcerned above the bloodstained battlefields of progress, or even sucks a ghoulish and parasitic sustenance from the life-blood of practical striving. Θεωρία must not be separated from πράξις, but related to it as means to end; thought must be conceived as an outgrowth of action, knowledge of life, intelligence of will, while the brain which has become an instrument of intellectual contemplation must be regarded as the subtlest, latest, and most potent organ for effecting adaptations to the needs of life.^[23]

Thus the πρότον ψεύδος of apriorism is to take our intelligence in abstraction from its biological and psychological setting, from its history, from its aim, and from the function which it performs in the economy of our nature. It perpetrates a χωρισμός between knowing and feeling which renders both impotent and their *de facto* union unintelligible.

But when we try to grasp experience as a whole, we must set ourselves above the encumbering abstractions of a psychological classification that has transgressed the limits of its validity. By conceiving the axioms as essentially postulates, made with an ultimately practical end, we bridge the gap that has been artificially constructed between the functions of our nature, and overcome the errors of intellectualism. We conceive the axioms as arising out of man's needs as an agent, as prompted by his desires, as affirmed by his will, in a word, as nourished and sustained by his emotional and volitional nature.^[24] It is manifest that we thereby knit together the various factors in our nature in a far closer and more intimate union than had previously seemed possible. Our nature is one, and however we distinguish, we must not be beguiled into forgetting this, and substituting a part for the whole. And, correspondingly, we open out the prospect of a systematic unification of experience of a far completer and more satisfactory character than can be dreamt of by an intellectualist philosophy. For just as the unity to which we may (and indeed must) now aspire is no longer merely that of the frigid abstraction called the 'pure' intellect, but includes and satisfies the will and emotions, so the corresponding unity of the cosmos will not be a purely intellectual formality (such as every world must possess *ex vi definitionis*), but a complete harmony of our whole experience.

§ 25. It is a curious fact that in passing from the *a priori* to the postulate we can appeal to the authority of the same Kant whose characteristic doctrine of an independent theory of knowledge we have been compelled to reject. For Kant, in accordance with his peculiar greatness, which his critics' very criticisms have ever recoiled to recognise, became partly and tardily aware of the fatal error of his intellectualism and of the impossibility of accommodating the whole of life on the basis prescribed by the *Critique of Pure Reason*. After constructing for the 'Pure Reason' a fearful and wonderful palace of varieties, full of dungeons for insoluble antinomies, dispossessed sciences and incarcerated ideals, haunted and pervaded by the sombre mystery of the Noimemon, he came upon the problem of practical life and found himself unable to organise the moral order similarly, *i.e.* without reference to the *demands* which we make upon experience.

Hence he was constrained to rationalise conduct by the assumption of ethical *postulates*, which boldly encroached and trespassed on the forbidden domain of the unknowable, and returned thence laden with rich spoil—God, Freedom, and Immortality.

This achievement is too often underrated, because it seems to have cost Kant so little—merely a decree for the creation of one more hardly-noticed addition to the lengthy list of faculties, yclept the Practical Reason, conjured into existence *ad hoc*, and apparently as obedient as the rest to her author's word.

But in reality the consequences of enunciating the principle of the postulate are far more momentous, and with a little reflection, it soon appears that Kant has evoked a force which he cannot curb or confine within the borders of his system. The immediate consequence of admitting ethical postulates which outflank the 'critical' negations of the Pure Reason, is a conflict between the Pure Reason, which had denied the possibility of *knowing* the subjects of the Postulates, and the Practical Reason, which insists that we must practically *believe* and *act on* these tabooed dogmas.

Kant essays indeed to delimitate an arbitrary and unscientific frontier between their domains, based upon

psychologically untenable hairsplitting between knowledge and belief,^[25] but the most indulgent reader cannot but feel that the dualism of the Pure and the Practical Reason is intolerable and their antagonism irreconcilable, while the dual character which this doctrine imposes upon Kant as both the Cerberus and Herakles of the Noumenal world is calculated to bring ridicule both upon him and upon his system.

In view of this fundamental incongruity between the organising principles of knowledge and action, one of two expedients had to be adopted. The first is that preferred by the main body of Kantians to whom the true and epochmaking Kant is the writer of the first Critique.^[26] They regarded the Practical Reason as a bit of a joke and accounted for Kant's subsequent recantation of his 'critical' results either wittily like Heine,^[27] or dully, like—but no! too many have written on the subject for me to mention names!

The faithful few who tried to balance themselves in the unstable equilibrium of Kant's actual position, who believed his assurances as to the supremacy of the Practical over the Theoretic Reason and its speculative impotence, were left in a sad perplexity. They accepted the dogma, without venturing to define it, and were troubled with an uneasy consciousness that it would not bear thinking out.

Even here, however, there was a notable exception. Fichte, with the enterprise and courage of youth, took the Practical Reason seriously in hand, and combining the doctrine of its supremacy with Kant's hints as to a common root of the two Reasons,^[28] proceeded to posit the Self as an '*absolutes Sollen,*' whence were to be deduced both the Not-Self and the practical and theoretical activities. The whole construction of the *Wissenschaftslehre*, however, proceeds in a τόπος ὑπερουράνιος which is too high for my humbler and concreter purpose—I mention it merely as a partial anticipation of the second and sounder way of conceiving the relations of the Practical and the Theoretical Reason to which I now proceed.

It is impossible to acquiesce in Kant's compromise and to believe by the might of the Practical Reason in what the Theoretic Reason declares to be unknowable. For if the suprasensible and noumenal does not really exist, it is both futile and immoral to tell us to believe in it on moral grounds; the belief in it is an illusion, and will fail us in the hour of our direst need. If the belief in the postulates is to have any moral or other value, it must first of all be used to establish the reality of the objects in which we are bidden to believe. We cannot *act as if* the existence of God, freedom, and immortality were real, if at the same time we *know* that it is hopelessly inaccessible and indemonstrable. We must therefore choose; we must either trust the Theoretical or the Practical Reason (unless, indeed, we are to conclude with the sceptic that both alike are discredited by their conflict).

If we choose to abide by the former, the undeniable fact of the moral consciousness will not save the postulates of the Practical Reason from annihilation. It may postulate as it pleases, as pathetically or ridiculously as it likes, its desire shall not be granted to it, and it will prove nothing. By postulating the inadmissible it merely discredits itself. To the plea that the moral life must live and feed upon the substance of unverifiable hopes, Science must ruthlessly reply "*je n'en vois pas la nécessité.*" If then the moral life demands freedom, and freedom be an impossibility, the moral life must inexorably be crushed; Kant is *der Alles-zermalmende*, as Heine thought, and nothing more.

If on the other hand the Practical Reason be really the higher, if it really has the right to postulate and ethical postulates are really valid, then we really stand committed to far more than Kant supposed. Postulation must be admitted to be capable of leading to knowledge, nay, perhaps even to amount to knowledge, and indeed the thought will readily occur that it lies at the very roots of knowledge. For of course postulation cannot be confined to ethics.

The principle, if valid, must be generalised and applied all round to the organising principles of our life. The Theoretic Reason will in this case be rendered incapable of contesting the supremacy of the Practical Reason by being absorbed by it and shown to be derivative. Thus postulation is either not valid at all, or it is the foundation of the whole theoretic superstructure.

We stand committed, therefore, to the assertion that in the last resort it is our practical activity that gives the real clue to the nature of things, while the world as it appears to the Theoretic Reason is secondary—a view taken from an artificial, abstract and restricted standpoint, itself dictated by the Practical Reason and devised for the satisfaction of its ends.

But to carry through this programme the price must be paid. The *Critique of Pure Reason* must be not merely revised, but re-written. It must be re-written in the light of the principle of the Postulate. Or as Prof. Ward has excellently put it, Kant's three *Critiques* must be combined into one.^[29] The simplest thing of all, however, is to proceed independently to show in what manner our fundamental axioms are postulated, now that we may be held to have exhibited the necessity of the principle and its historical justification.^[30]

IV

§ 26. We have already incidentally discovered some of the chief characteristics of the Postulate, such as its universality and necessity (§ 11), its experimental character (§§ 5, 8, 11), its psychological origin from practical needs, its function in holding together the intellectual and practical sides of our nature and developing the former out of the latter (§§ 24, 25). But it will not be amiss to consider some further points of a general character before proceeding actually to trace the development of specimen postulates into axioms.

The first point which perhaps will bear further emphasis is that mere postulating is not in general enough to constitute an axiom. The postulation is the expression of the motive forces which impel us towards a certain assumption, an outcome of every organism's unceasing struggle to transmute its experience into harmonious and acceptable forms. The organism cannot help postulating, because it cannot help trying (§ 5), because it must act or die, and because from the first it *will* not acquiesce in less than a complete harmony of its experience. It therefore needs assumptions it can act on and live by, which will serve as means to the attainment of its ends. These assumptions it obtains by postulating them in the hope that they may prove tenable, and the axioms are thus the outcome of a Will-to-believe which has had its way, which has dared to postulate, and, as William James has so superbly shown, has been rewarded for its audacity by finding that the world granted what was demanded.^[31]

But the world does not always grant our demands. The course of postulation does not always run smooth. We cannot tell beforehand whether, and to what extent, a postulate can be made to work. Compliance with some of our demands is only extorted from the refractory material of our 'world,' by much effort and ingenuity and repeated trial. In other cases the confirmation we seek for remains incomplete, and the usefulness of the postulate is proportionately restricted. Sometimes again we may even be forced to desist from a postulate which proves unworkable.

It follows that we may find postulates (or attempts at such) in every stage of development. They may rise from the crudest cravings of individual caprice to universal desires of human emotion; they may stop short at moral, aesthetic, and religious postulates, whose validity seems restricted to certain attitudes of mind, or aspects of experience, or they may make their appeal to all intelligence as such; their use as principles of the various sciences may be felt to be methodological, or they may have attained to a position so unquestioned, useful, and indispensable, in a word so *axiomatic*, that the thought of their being conceived otherwise never enters our heads.

But even the most exalted of these ἀρχαί ἀναπόδεικτοι τῶν μὴ ἐνδεχομένων ἄλλως εἶχειν differ from their humble relatives in human wishes not in the mode of their genesis, but in their antiquity, in the scope of their usefulness, in the amount and character of the confirmation which they have received in the course of experience, in a word, in their *working* and not in their *origin*. They are the successful survivors in the process of sifting or 'selection' which has power also over the products of our intellectual striving.

But it ill becomes them on this account to give themselves airs and to regard their position as immutable and unassailable. For in many cases they retain their hold over our affections only *faute de mieux*. They are the best assumptions we can work with, but not the best we can conceive. And some one may some day discover a way to work with what are now unsupported postulates, and so raise them to axiomatic rank. Thus whatever axioms we may at any time employ are, and ever remain relative to the nature of our desires and our experience, and so long as changes may occur in either, inexhaustible possibilities of corresponding developments must be admitted in the list of our axiomatic principles. An emotional postulate may become the guiding principle of a new science, a methodological principle may become superfluous and be discarded or be superseded by a better, a primitive desire may die down and cease to nourish a postulate, nay even a full blown axiom may be conceived as becoming otiose

under changed conditions of experience.

While our empiricism is thus too radical, and our trust in experience too honest, to permit our theory to assign to any axiom an absolutely indefeasible status, we must yet admit that practically the possibility of modifying them is one that may safely be neglected. The great axioms or postulates are so ineradicably intertwined with the roots of our being, have so intimately permeated every nook and cranny of our *Weltanschauung*, have become so ingrained in all our habits of thought, that we may practically rely on them to stand fast so long as human thought endures. For apart from the fact that it would be gratuitous to suppose a revolution in our experience sufficient to upset them, they are protected by our laziness. To think always costs an effort, and the effort of thought required to undo the structure of mind which has grown up with the ages would be so gigantic that we should shrink with a shudder from the very thought thereof. And all for the sake of what? Merely to show that the mental order was constructed bit by bit by postulation and might be constructed otherwise! And would it not be sheer insanity to upset the authority of the axioms in use unless we were prepared to substitute others of superior value? There is therefore in general little prospect of revolutionary plots against the validity of axioms. The enterprise would too much resemble an attempt by a coral polyp to cut itself adrift from its reef and to start *de novo*. So we do as the corals do and build on the corpses of our ancestors, hoping that if they were right we also shall profit by following suit, that if they were wrong, the consciousness of our wrongness will at least be borne in upon us with a less painful promptitude than if we had set out to go wrong on our own account.

§ 27. It follows as a matter of course, and will readily be comprehended, that, if our axioms have the origin alleged, if postulation pervades our whole mental life and forms the *nisus formalivus* of mental development, no exhaustive, or even systematic, table of axioms can, or need, be drawn up. In principle their number and nature must depend on our experience and psychical temperament. They will radiate from human personality as their centre, and their common service in ministering to its needs will bestow upon them sufficient unity to debar us from attempts to force them into artificial systems which at best can result only in sham 'deductions' of the rational necessity of the actual, while making no provision for the possibilities of future development.

We may therefore absolve ourselves from the supposed duty of giving a 'deduction of the categories,' or even an exhaustive list of axioms and postulates. This is the more fortunate as it justifies us in considering only such select specimens of the growth of postulates and their development into axioms, as may suffice to illustrate the principle, or prove particularly interesting, and enables us to save much time and spare much weariness.

V

§ 28. Which of our fundamental axioms I select therefore, does not matter much, any more than the order in which they are treated; but as I am anxious not to incur the charge of shirking difficulties, I shall begin with tracing the genesis of one which is perhaps the most difficult, as it is certainly one of the most fundamental and axiomatic—viz. the basis of all thinking in the strict sense of the term, the Principle of Identity.

Not, of course, that I propose to derive it out of nothing. I must entirely disavow the Hegelian (or hyper-Hegelian?) ambition of conjuring all Being into existence out of Not-being by a Dialectical Process working *in vacuo*; I have not even got the whole of concrete reality up my sleeve to insinuate bits thereof into my conclusions, whenever and wherever my reader's attention has been relaxed by some tortuous obscurity of argumentation. I prefer honestly to start from what may be taken to be, so far as psychology can describe it, matter of psychical fact. For I hold that epistemological speculation like every other, must take something factual for granted, if it is not to be vain imagining, and defy those who contest my presuppositions to state the alternatives they are in a position to offer. If on this account a claim be advanced that my initial basis of psychical fact is *a priori*, that is, prior to the axiom to be derived, I make no objection. I am content that it should be called so, if the phrase comforts anybody, and if I am permitted to point out (1) that such priority is only relative, *pro hac vice*, and for the purposes of the present inquiry, (2) it is admitted to lie below the level of what can properly be called thought. For I wish to make it quite plain that the psychical fact from which I propose to start, is on what I may perhaps best call the *sentient level of consciousness*, i.e. involves only a consciousness which feels pleasure and pain, which strives and desires without as

yet clear self-consciousness or *conception* of objects.

In so doing, I assume, of course, the existence of consciousness or sentiency as a *datum*, and abstain from the alluring expedient of conducting my whole plea on the more concrete plane of biological discussion, obvious and seductive as it might appear to start thence and to argue (1) that the genesis—by a so-called ‘accidental variation’—of the concomitance of psychical with physical process was of great survival-value to the lump of matter which first happened to find itself alive and dimly conscious; (2) that subsequently great advantages accrued to organisms in which these mental processes cohered and coalesced and became continuous and centralised, until they culminated in self-consciousness. There is a fatal facility and engaging modernity about arguments of this sort, and they bring out an important aspect of the truth. For it is not too much to say, that every step in the development of our axioms, including even the steps hypothetically conceived to precede consciousness, could be plausibly formulated in terms of survival-value. But though it might be easy in this way to enlist the support of the biologically-minded, I prefer to conduct the argument on a higher and more philosophic plane, in order to avoid even the appearance of the *ύστερον πρότερον* which is inevitably involved in every derivation of consciousness.

In assuming consciousness, moreover, we are bound to assume also the characteristic features whereby it is psychologically described, *e.g.* its continuity, coherence, conativeness, and purposiveness. It should be observed further that in pointing out these characteristics of consciousness, we are not attempting to *define* consciousness. For why should we court failure by propounding an inevitably inadequate formula, to contain and constrain that which embraces all existence, generates all formulas, uses them and casts them aside in its victorious development? Whoever is possessed of consciousness himself will recognise to what in him the description of consciousness refers; unless he were capable of this, the most exhaustive definitions would impinge on him in vain and without conveying a glimmer of meaning. That consciousness is a psychic fact therefore I shall assume; what it is, I must leave to my reader’s own consciousness to inform him. I have then in consciousness a *ποῦ στώ* of psychic fact beyond which we neither can nor need go.

Nor I think need we allow the objection to perturb us that our present conception of consciousness may be miserably inadequate. In view of its continuing development in the course of experience the suggestion is probably true; but we do not need the adequate conception of consciousness, which could be reached only in the seventh heaven, and there might have become superfluous. And in any case our ignorance of what the ulterior development of consciousness may portend, is no reason for refusing to recognise in it the actual features which are relevant to our purpose.

§ 29. Now among the factual features *implicit* in all consciousness, though perhaps hard to distinguish in its lower forms and not as yet completely *expressed* in any that we have so far reached, is an *identical self*—or what we are subsequently able so to designate. By this I do not of course mean anything lofty and metaphysical, but merely a convenient description of certain psychical facts. I have no quarrel with the psychologists who argue against an antiquated view of futile and unknowable soul-substance, and insist that the only self they can recognise is just the implicit ‘owning’ of all conscious processes. If the coherence and continuity of conscious processes can under the proper conditions develop into explicit self-consciousness, that is enough; and so long as the psychologists are able and eager to tell us all about the psychogenesis of the self, I see no reason why their accounts should not be referred to with gratitude and respect.

But my problem is not one of origin, but of the origin of validity; *i.e.* assuming this conscious self to have been developed, I have to trace out how it proceeds to the conception and postulation of identity. The felt self-identity of consciousness, which, however it arises, is a psychical fact, is, I contend, the ultimate psychical basis for raising the great postulate of logical identity, which is the first and greatest of the principles of discursive thought and introduces order into the chaos of presentations and analyses the *συγκεχυμένον* of primitive experience.

Now this achievement is not a ‘necessity of pure thought’ so much as of practical life; and without postulation it would remain impossible. The unceasing flow of like impressions by itself would not suggest the recurrence of what has preserved its identity in change; nor would even its *felt* likenesses suffice to engender a perception of identity.^[32]

To obtain identity we must first desire it and demand it; and this demand, though it would be impossible if we did

not feel ourselves to be identical selves and fruitless if we could not discover such around us, is a distinct step beyond anything given in passive experiencing.

Thus the conception of identity is a free creation of a postulating intelligence which goes beyond its experience to demand the satisfaction of its desires. But it must have been the felt sameness of the continuous conscious life that suggested the clue to the *recognition of the same* in the *recurrence of the like*.

§ 30. Edwin meets Angelina in her winter furs whom he admired last summer in fig leaves; he recognises her identity in the differences of her primitive attire. That such things as the persistence of identity through change should be, and what they mean, he could learn only from the immediate experience of his own identity. That they are *is his postulate*, a postulate that fills his heart with the delicious hope that Angelina will smile on him as bewitchingly as before. Why should I introduce sordidness into this romance, by dwelling also on the coarsely practical advantages of recognising objects in one's surroundings?

Yet it is surely plain that the recognition of the same amid variety of circumstance is advantageous; and if desiring it to be true, because he felt his whole happiness depended on it, Edwin made bold to postulate it, he well deserved the rich rewards which poured in as an overwhelming experience of its working confirmed his postulate.

We, of course are far removed from the scene of this primitive idyll, and have long since ceased to notice what a postulate identity was, and for the matter of that still is. We need a world of philosophic quibbling to bring before our eyes the fact that strict identity never yet was found by land or sea, but is always and everywhere a construction of our mind, *made* by voluntary concentration on the essential and rejection of the irrelevant.^[33]

Nor, of course, did Edwin know this. He had postulated under the impulsion of practical need, without knowing what he did. The enormity of the logical consequences of his act was hidden from him and only gradually revealed. Still less did Angelina know that she had become the mate of the first *animal rationale*.

Edwin, again, could not foresee that his original postulate would not suffice, and that stupendous efforts of abstraction were still before him if he would complete the postulate of identity and attain to the purity of its present logical use.

In recognising Angelina he had of course (although he realised it not) construed her identity upon the model of his own. But the concrete given identity of self-consciousness is a slender basis for the construction of the logical ideal; indeed it even proves unequal to the requirements of a social life, and needs on this account to be sublimated and idealised into a concept that transcends the given.

The concretely identical, alas, changes in the flow of differences! Edwin has grown bald and Angelina wrinkled, and I grieve to say, they often quarrel. They are no longer what they were when each succumbed to the other's charms, and identity seems dubious and a fraud. *Eheu fugaces Postume! Postulate!* The cure is a hair of the dog that bit you. Edwin must postulate once more, must postulate a more permanent self which I rises superior to such mischances of a mortal life, and, ever at its best, feeds on ambrosia and drains the nectared cups with changeless gods!

Gods, did I escape my own notice saying? What are gods and how do they arise? As men, but greater! Projections of ideals which the actual suggests, but seems to trample under foot! The sign-posts clearly point to the religious postulates and a track which here diverges from our own.

§ 31. For though it would be fascinating to trace the course of postulation to which religious conceptions owe their birth, we must follow the dry and dusty road of logical postulation by whose side the hardiest flowers of the boldest rhetoric can scarce contrive to blossom. A constant and unchanging self is needed not merely to satisfy what subsequently develops into the religious instinct, but also in order to yield a trustworthy standard of comparison for the purposes of everyday life. If Edwin likes his mammoth steak well done to-day and underdone to-morrow, no woman can live with him. A stable standard of reference in our judgments is an urgent practical need. Hence the ideal of absolute identity begins to dawn upon the logical horizon, and it is recognised that the possibility of meaning depends on its constancy, and that perfect constancy could be realised only by perfect knowledge.

And, not otherwise, recognition leads on to cognition, and cognition to the same postulate of conceptual identity or constancy. The process which took the recurrence of a similar presentation to mean that of the same individual, will bear extension to the resemblances of natural kinds. From recognising individuals we proceed to recognise species, a task made easier by the psychological carelessness which overlooks individual differences.^[34] Now *every step in this process is a training in abstraction*. At first even Edwin could not recognise his Angelina without divesting her (in thought) of her enveloping differences. But by the time he can discern in their manifold disguises the surrounding objects that are useful or dangerous, he has a pretty sound working control of that weapon of analysis which we now call the principle of identity.

No doubt it still is, and long remains, an *ένυλον είδος*—pure logic not becoming needful so soon as pure mathematics—but sooner or later some one was sure to ask what was this universal ‘man’ which was so glibly predicated of white, black, yellow, and brown. And then of course the *ύλη* would be in the fire, and a bloodless ballet of philosophers would commence to dance round the unearthly conflagration.

§ 32. I forgot to mention, by the way, that soon after recognising identity in Angelina, Edwin had (of course) invented language. As to why the expression of his emotions on that prehistoric occasion resulted in the euphonious sound of “Angelina,” he can indeed state nothing intelligible. But by association’s artful aid he got into the habit of venting this utterance whenever he saw her. And then one morning he not only said it, but meant it! Prodigious! the sound had become a symbol! It puzzled him very much, and he had that, until then, unheard-of thing, a nervous headache, for three days afterwards, which puzzled him still more. He put it down to daemonic inspiration (a notable advance in theology!) and *went on thinking*. Then he proceeded to instruct Angelina, and after a painful process (to her!) got her to answer to her name. And, behold, when their children were born they all learned to talk, *i.e.* to apply similar and *identifiable* sounds to an indefinite plurality of similar objects. Which, of course, in those days was an immense advantage. And ever since the children of men have been the only anthropoids that could talk and impart ideas—whether they had them or not!

All this happened such a very long time ago that I cannot exactly tell you when, and have had (like Plato) to make a myth of it. Whether in so doing I have not condensed into a single myth what was really the gradual achievement of many generations of mortals it were pedantic to inquire. The illustration serves, I hope, to bring out the main point, *viz.* that the affirmation of identity, without which there is neither thought nor judgment, is essentially an act of postulation (more *or less* consciously felt to be such) which presupposes as its psychological *conditio sine qua non* the feeling of the self-identity and ‘unity’ of consciousness.

§ 33. The derivation of identity I have sketched also goes some way, I think, to explain why in real life men so long enjoyed immunity from the ravages of the predication puzzle. Identity being a practical postulate, modelled on the immediacy of felt self-identity, the postulation of absolute conceptual identity developed very slowly, and there never was any practical danger lest the meaning of the postulate should be pressed into a form calculated to defeat its original purpose. The inherence of attributes in a substance, the relation of a thing to its qualities, are not as such practical problems, and the difficulties which the intellectual play of reflective idlers has discovered in them did not exist in practice. In practice the meaning of terms was defined by their use, and the will-o’-the-wisp of a ‘truth’ dissevered from utility had not yet been permitted to frustrate the very instinct of which it claimed to be the loftiest satisfaction, nor to eviscerate the conception of ‘truth’ of its real meaning.

And so tacit convention kept the identity postulated true to a sense that allowed of the possibility of predication.

Hence that *S* should be *S* and yet also *P*, nay that it could be *P*, just because it was primarily *S*, seemed no more remarkable than that the self which was glutted with beef yesterday should to-day be hungry, and just because of this identity, should prepare once more to assume the predicate of ‘beef-eater.’ It would be vain therefore to impose on the logic of postulation with bogies of an identity excluding differences; the calm reply would be that postulates need not, and must not, be pressed beyond the point at which they fulfil their purpose. An interpretation of identity therefore which excluded predication would stultify our supreme purpose in reasoning as completely as a failure to identify, and would *therefore* be invalid.

And yet we should be equally stern in resisting the allurements to evade the difficulty by relaxing the strictness with which identity is postulated in every valid argument. To the objection that 'abstract identity' would be the death of predication, because if *A* were I perfectly and unalterably *A* it could never become anything else, the answer is plain. Abstract identity is never found, but has always to be made. It is made, therefore, in whatever way and to whatever extent it is needed, and remains subservient to the purpose of its maker. It is a postulated ideal which works, though nature never quite conforms to it; before it could be fully realised, the need to which it ministers, the necessity of unceasing predication which is forced upon us by the Becoming of the world, would have had to pass away; and once we had transcended change, identity, together with the processes of discursive thinking which are built upon it, might safely be added to the weapons discarded by the spirit in its advance towards perfection. But as a matter of fact identity continues to be useful just because it continues to be a postulate which never is fully realised. It may therefore blandly be admitted that *A is A* is an impotent truism, so long as it is vividly realised that *A shall be A* is an active truth that remoulds the world.

§ 34. It is in its limitations, perhaps, that the postulatory nature of the principle of identity, and of the conceptual use of mental imagery based on it, appears most clearly. For, as has already been remarked, there ever remains a discrepancy between the identity of the real and the logical ideal, a discrepancy to which we have grown accustomed, a discrepancy on which the use of the concept depends, but which, indubitably, renders identity a postulate rather than a 'law.'

For in strict fact nothing ever *is*, everything *becomes*, and turns our most conscientious predications into falsehoods. The real is here, there, and everywhere, until we stop breathless in our chase and *point*, gasping. The 'eternal truths,' unable to sustain the pace, have long ceased to reside with us—if indeed they ever gladdened us with theophanies even in the Golden Age of Plato—and have gone down or up (one really cannot be precise about astronomical directions in these Copernican days) into the τόπος νοητός, where it is possible to preserve one's dignity without doing any work. In their stead we have craftily devised conventions, such as that becoming *shall mean* being, and that *for our purposes* relative identity may, under the proper precautions, serve as well as absolute. But we stand unalterably committed to the postulate that identity there shall be, though everywhere we have to make it and by force to fit it on the facts. And so we get on very nicely with truths, as with dresses, that last only for the occasion or for a season, and console ourselves with visions that in the end Being will absorb Becoming and impermanence cease from troubling and predication be completely true and unchanging and perfect and categorical. If by that time we have outgrown the very need of predication, it does not matter to us now; for nothing of the sort is likely to happen to any of us for ever so long!

VI

§ 35. The myth of Edwin and Angelina has reminded me (perchance by ἀνάμνησις) of another of still more ancient date, and if I have obtained forgiveness for telling so much about them, I may venture to relate the story of another being whose name was *Grumps*. Or rather, that would have been his name, if names had then been invented. I cannot quite say who or what Grumps was, but he lived ever so long ago and was very stupid, *very nearly* as stupid as everybody else. He was so stupid that he did not know the difference between himself and other people, but still in his muddled way—he lived, I fancy, in the slime at the bottom of the sea—he wanted to be happy, though he did not know himself nor what his happiness could be. But one day (or night—it does not really matter which it was,—because there was no light) he made a mistake and got outside a jagged flint stone which he could not digest. It hurt him very much and he nearly died. But ever after his agony Grumps knew the difference between himself and other people, and whenever anything hurt him or happened not to his liking (which was very often) he put it down to the other people. For he felt sure he would never hurt himself. And it made such a difference to his way of living that he grew very big and fat. But everybody else was too stupid to know why.

Which fable, being translated into the decent obscurity of technical language, means that the 'external' world is a postulate, made to extrude inharmonious elements from consciousness, *de jure* if not *de facto*, in order to avoid ascribing them to the nature of the self. Not of course, that this is at first consciously so argued, or that the

segregation of the two poles of the experience -process into Self and Not-Self need be conceived as arising otherwise than *pari passu*. But we may conceive that it is the *felt unsatisfactoriness* of experience which suggests the differentiation of Subject and Object and postulation of the latter as an alien 'Other,' *causing* the unsatisfactoriness. The advantage and the confirmation are obvious as before. And if any one will not believe me, let him go to bed and dream; he will find that there too he projects his dream world from himself and ascribes to it externality, just because, and in so far as, he is baffled by an experience he cannot control.

Contrariwise it may be conjectured that if we got to heaven (having forgotten our whole past) and found that everything took exactly the course desired, no sense of the 'otherness' of our experience could grow up. We should either suppose that we were almighty, that everything was what it was because we desired it, or we should cease to make the distinction between self and 'other,' *i.e.* should cease to be self-conscious.

§ 36. The postulatory aspect of other important axioms I must pass over lightly. The principle of Contradiction may be taken as simply the negative side of that of Identity; in demanding that A shall be itself, we demand also that it shall be capable of excluding whatever threatens its identity. Applied to propositions, it demands that we shall be enabled to avoid the jar of incongruous judgments; but the volitional nature of this demand is clearly attested by the frequency with which contradictions are *de facto* entertained by minds which either do not allow them to come into actual conflict, or actually enjoy the conflict. The Principle of Excluded Middle similarly, demands that it shall be possible to make distinctions sharp and disjunctions complete, in order that we may thereby tame the continuous flux of experiences. But in both these cases (as before) our postulates are not precise transcriptions of fact; they are valid because they work, because nature can be made to conform to them, even though not wholly. They derive therefore their real meaning and true validity from the fact that they are applicable to experience, that incompatibles and strict alternatives are met with, that contrary and exclusive attributes are found.

§ 37. I may here call attention to the fact that in scientific research the postulatory procedure of our intelligence is displayed in the formation of *Hypotheses*. A hypothesis is a suggestion we assume and (however tentatively) *act on*, in order to see whether it will work. It always proceeds from some degree of psychological interest; for about that in which no one is interested no one frames even the most fleeting hypothesis. A real hypothesis therefore is never gratuitous; it is purposive and aims at the explanation of some subject. In other words it presupposes a desire for its explanation and is framed so as to satisfy that desire. The desire for an answer stimulates us to put the question to nature and nature to the question.^[35] We assume, that is, that the hypothesis is true, because it would be satisfactory if it were, and then we try and see whether it is workable. If it is not, we are more or less disappointed, but try again; if it is, it rapidly rises to be the theory of the phenomena under investigation, and may under favourable circumstances attain to axiomatic value for the purposes of the inquiry. A good example of this is afforded by the conception of Evolution. This originated as a wild hypothesis suggested by remote analogies; in the hands of Darwin it became a theory which correlated a vast number of facts; and now its usefulness is so universally recognised that it is accepted without discussion as a methodological axiom which guides research in all the sciences concerned with the history of events.

Now the fundamental part played by Hypothesis in the discovery of new truth is being more and more plainly admitted by logicians. Novelty neither arises by formal ratiocination *in vacuo*, as an apriorist logic seemed to imply, nor yet is it spontaneously generated by the mere congregation of facts, as logical empiricism strove to maintain. Facts must be interpreted by intelligence, but intelligence always operates upon the basis of previously established fact. The growth of knowledge is an *active assimilation* of the new by the old. Or in other words, our hypotheses are suggested by, and start from, the facts of already established knowledge, and then are tested by experience. We confront them with the new and dubious facts and try to work with them; and upon the results of this trial their ultimate fate depends.

Now this is exactly what we have seen to be our procedure in postulating. We must start from a psychical experience which suggests the postulate (= the previous fact suggesting the hypothesis); we must use the postulate (or hypothesis) as a means to an end which appears desirable; we must apply the postulate to experience (a postulate and

a hypothesis not capable of and not intended for use are alike invalid); and the final validity of the postulate (or hypothesis) depends on the extent to which experience can be rendered congruous with it.

May we not infer that the use of Hypothesis in the logic of induction confirms our assertion of the postulatory origin of axioms? Is it not the same process which now yields fresh truth which we supposed to have been active from the first and to have laid the foundations of knowledge? And if it can now establish the validity of the truths it elicits, why should it not first of all have established its own validity by establishing the validity of our fundamental axioms?

§ 38. The principle of Causation again is pretty plainly a postulate. Causation, as James says,^[36] is an altar to an unknown god, a demand for something, we know not what, that shall enable us to break up and to control the given course of events. Now this demand may be satisfied in various ways at different times and for various purposes, in a manner which greatly conduces to the vitality of controversy. Historically, our original model for constructing the conception of cause is our immediate experience in moving our limbs, on the basis of which the far-famed 'necessary connection'—which at bottom is only the conceptual translation of the feeling of 'having to'—is postulated. This primitive conception of causation, however, does not prove adequate for all our later purposes, especially when, as is usually the case, it is misunderstood and mismanaged. So we proceed to other formulations of causality, which, however, are no less clearly dependent on our experiences and relative to our purposes. 'Cause' means identity when we wish to construct the equations of physics and mechanics; it means regular succession when we are content to view phenomena from without; it involves real agency when, as rarely occurs on the plane of the natural sciences,^[37] we desire to grasp the motive forces of phenomena from within. Every event *shall have* a cause—in order that we may be able to produce it or to check its production. Similarly the principle of sufficient Reason demands that everything shall be capable of reasoned connection with all things—*i.e.* we decline to live among *disjecta membra* of a universe.

How intensely postulatory these axioms are, is best seen when we consider what is too often neglected, *viz.* the limits of their use. The unchanging is the uncaused; no reason is required for that which is 'self-evident.' But, psychologically, everything is self-evident which provokes no question, and what alone would be absolutely self-evident would be the absolutely satisfactory. Thus the only complete logical truth would be one which left no room for further questions by reason of its absolute psychological satisfactoriness. And conversely nothing arouses the questioning spirit more readily than the unsatisfactory. As has well been said, there is a problem of evil, but not of good. It is precisely in so far, therefore, as experience is unsatisfactory that we have need of a principle of Sufficient Reason. It has to be left, with so much of the panoply of practical life, at the gates of Heaven.

Comprehended as a postulate, therefore, the principle of Sufficient Reason no longer exercises an unsympathising tyranny of pure reason over reluctant desires; it does not drive us to seek for reasons that can never satisfy without end; it only enables us to assign a reason whenever we will, and the situation seems to us to need one.

The λύσις of the ἀπορία of the infinite regress of causes is similar. It means "you may go back as far as ever you will"; it does *not* mean "you must go back, whether you will or not." As for the unchanging (or what is taken to be such) the causal demand has no power over it; it has no cause because it has no changes with which it is practically necessary to grapple.

§ 39. Upon the assumption of the existence of universal laws of nature, otherwise known as the Uniformity of Nature, I may bestow a somewhat fuller treatment, for reasons which can perhaps be conjectured by those of my readers who have been engaged in philosophic instruction.

To primitive man—we may suppose ourselves to have got down to semi-historical times—nature inevitably still appears very chaotic and uncomfortable. He desires an explanation of the circumstances that oppress him, and is prepared to clutch at any straw. He partially gratifies this desire by projecting as the 'causes' of such happenings 'spirits' naturally and necessarily conceived *ex analogia hominis*, and wild and malevolent enough to account for the chaos and the discomfort.

But after all the chaos is not complete; it is interspersed with gleams of uniformity. Though under the promptings of misplaced paternal pride, Helios may conceivably entrust his chariot to the unpractised hands of Phaethon, yet within the memory of the oldest inhabitant the sun has risen and set with regularity. So too a number of organic rhythms, breathing, cardiac pumping, digestion, hunger, etc., have by this time reached a regularity which can hardly be overlooked. There is therefore no lack of psychical experience to *suggest* regularity, and the whole force of association, driving the mind into habitual courses, disposes it to expect a recurrence of the familiar.

Perfect regularity, therefore, can be postulated; and the temptation to do so is great. For while no amelioration of man's miserable state can be expected from the scientific caution that dares not step beyond the narrow bounds of precedent, the postulation of universal laws is fraught with infinite possibilities of power. If nature is regular, it can be trusted; the future will resemble the past—at least enough to calculate it—and so our past experience will serve as guide to future conduct. There is, moreover, a glorious simplicity about calculating the future by the assumption that out of the hurly-burly of events in time and space may be extracted changeless formulas whose chaste abstraction soars above all reference to any 'where' or 'when,' and thereby renders them blank cheques to be filled up at our pleasure with any figures of the sort. The only question is—Will Nature honour the cheque? *Audentes Natura juvat*—let us take our life in our hands and try! If we fail, our blood will be on our own heads (or, more probably, in some one else's stomach), but though we fail, we are in no worse case than those who dared not postulate: uncomprehended chaos will engulf both them and us. If we succeed, we have the clue to the labyrinth. Our assumption, therefore, is at least a methodological necessity; it may turn out to be (or be near) a fundamental fact in nature. We stand to lose nothing and to gain everything by making a postulate which is both a practical necessity and an obvious methodological assumption, pointing out a way of investigating a subject with which we must grapple, if we will to carry on the struggle which is life.

Quid plura? Experience has shown that Nature condones our audacity, and step by step our assumption has been confirmed. The 'reign of law' has turned out to be as absolute as ever we chose to make it, and our assumption has worked wherever we have chosen to apply it. Thus the speculations to which we were first driven in the hungry teeth of savage facts by the slender hope of profit, by the overpowering fear of the ruin which stared us in the face, have slowly ceased to be speculative and become the foundations of the ordinary everyday business of life. Our postulates have grown respectable, and are now entitled axioms.

§ 40. By way of a change I may pass to consider the function of the postulate in a very different region, viz. the construction of our conceptions of Space and Time, which since Kant it has become difficult not to treat of in analogous fashion. In Kant, of course, it will be remembered that they are treated as twin instances of 'pure' 'intuition' or 'perception' (*reine Anschauung*) giving rise to synthetic judgments *a priori* and needing to be systematically distinguished both from perceptions (*Wahrnehmung*) and from conceptions. Nevertheless it will hardly escape an unprejudiced observer that a 'pure intuition' is strangely intermediate between a perception and a conception.

Of this curious fact the explanation which I shall venture to suggest is that in reality the *reine Anschauung* is a hermaphrodite, *both* perceptual and conceptual, and that Kant's doctrine on the subject rests on a systematic confounding of these two aspects. He argues first that Space and Time cannot be perceptions by appealing to their conceptual nature, and then that they cannot be conceptions by appealing to their perceptual character. So he has to construct the pure intuition as a third thing which they may safely be, seeing that they can be neither percepts nor concepts. But he has overlooked the possible alternative that, as so often, the same word has to do duty both for percept and concept, and that by 'Space' and 'Time' we mean now the one and now the other. This ambiguity having escaped his notice,^[38] the result is that the whole doctrine of the Transcendental *Æsthetic* is pervaded by a thorough-going confusion of psychology and logic.

As against Kant, I shall contend that the nature of Space and Time remains an inexhaustible source of paradox and perplexity, until it is recognised that in each case what has happened has been that certain psychological data have been made the basis of conceptual constructions by a course of methodological postulation.

§ 41. In the case of Space these psychological data consist of the inherent extension or spatiality of the perceptions of the senses of sight and 'touch' (= pressure + muscular contraction + articular motion), in consequence whereof we can no more *perceive* the unextended than (despite Kant) we can *perceive* empty Space. These perceptual spaces are fused by the necessities (needs) of practical life, which force us to correlate the visual and tactile images of objects, into a single perceptual or real space, in which we suppose ourselves and all objective realities to be immersed. Thus spatiality is a given attribute of the real world as empirical originally as its colour or its weight.

But this real space is very far from being identical with the space of the geometers. Geometrical space is a conceptual construction founded upon space-perception and aiming at the simplest system of calculating the behaviour of bodies in real space—a matter obviously of the greatest practical importance. Hence it is built up by a series of postulates into an ideal structure which *at no point coincides with our perceptual space and in many respects is even antithetical to it.*

Thus it is commonly stated that 'Space' (conceptual) is one, empty, homogeneous, continuous, infinite, infinitely divisible, identical, and invariable. Now every one of these attributes is the product of an idealising construction the purpose of which is to facilitate the interpretation and manipulation of the movements of bodies in real (physical or perceptual) space, which stands in the sharpest contrast with our conceptual construction by being many, filled, heterogeneous, continuous only for perception (if atomism be true), probably finite,^[39] *not* infinitely divisible (atoms again!) and variable.

And this is how and why we construct the qualities of our ideal geometrical space. We make it *one* and identical by correlating our sense-spaces, by fusing the multitude of fields of vision and by refusing to recognise the spaces of our dream experiences, in order that we may have a common standard to which we can refer all our space-perceptions. We make it empty and invariable by abstracting from that which fills it and changes in it, in order that nothing may distract us from the contemplation of its pure form. We make it infinite and infinitely divisible by carrying actual motions and divisions on *in thought*, because it is sweet to imagine that no limit exists beyond which we cannot penetrate. We make it continuous by idealising an (apparent) feature of perception, in order to confer upon it a mystic invulnerability. And lastly we make it homogeneous—structureless, and *therefore* able to receive any and every structure—in order to relieve our minds and practical forecasts of the utter and incalculable heterogeneity which renders the physical qualities of real space different at every point. And last of all we make perceptual and conceptual space share in the same name, because for practical purposes we want to identify the latter with the former and to affirm its validity, and are not concerned to save philosophers from confusion.

And yet when the philosopher has laboriously disentangled the varied threads that are woven into the texture of practical life, and questions us, we can realise the character of our constructions. We can see full well that all these attributes which conceptual space postulates are impossible in perceptual space; that is just the reason why we demand them. They are pure abstractions which idealise the actual and serve the purpose of enabling us to simplify and to calculate its behaviour. And so long as our assumptions come sufficiently near to reality for our practical purposes, we have no reason to emphasise the distinction between the two senses of 'Space' and indeed are interested rather in slurring over the divergence between pure and applied mathematics.

§ 42. Our assumption, then, of geometrical space is true because it works and in so far as it works. But does it work? In modern times ingenious attempts have been made to contest this assumption, and to reconstruct geometry 'on an empirical basis' or at least, to construct alternatives to the traditional 'geometry of Euclid.' These 'metageometrical' speculations have indulged in many crudities and extravagances and have not in all cases succeeded in freeing themselves from the very confusions they were destined to dissipate. But they have achieved a great work in stirring up philosophers out of their dogmatic trust in 'the certainty of mathematics,' and forcing them to realise the true nature of geometric postulates.

The chief philosophic results of the Non-Euclidian metageometry are briefly these. The Euclidian space-construction rests upon 'the postulate of Euclid' as to parallel straight lines, which Euclid postulated in the innocence of his heart, because he wanted it, and the indemonstrableness of which had ever since been considered a disgrace to geometry.

The simple explanation of this fact proffered by metageometry is that conceptual space is a generic conception capable of being construed in several specific ways, and that Euclid's postulate (or its equivalent, the equality of the angles of the triangle to two right angles) stated the specific differentia of the space Euclid proceeded to construct.

But out of the same data of spatial perception other systems of conceptual geometry might have been constructed, whose distinctive postulates (as to the number of 'parallels' to be drawn through a given point or as to the sum of the angles of the 'triangle') diverged symmetrically from that of Euclid and would give rise to coherent, consistent and *necessary* geometries, logically on a par with Euclid's and differing from the latter only in the point of usefulness.

For, however much the new geometries of 'spherical' and 'pseudo-spherical' space^[40] might claim to rival the logical perfections of the traditional geometry, they have not been able to contest its practical supremacy. Their assumptions are much less simple, and their consequences are much less calculable and much less easily applicable to the behaviour of objects in real space. It seems to be possible indeed to conceive experiences which would be most easily and conveniently interpreted on metageometrical assumptions, but it has had to be reluctantly acknowledged that so far no such experiences have fallen to our lot. Euclidian geometry is fully competent to do the work we demand of our geometrical constructions.

But that does not make it more *real* than its rivals. They are *all three* conceptual constructions which may or may not be *valid* and *useful*, but which are alike incompetent to claim *existence*. Hence the question which has been so much debated in metageometrical controversy, viz. 'whether our space is Euclidian or not' is strictly nonsense. It is like asking whether the Sistine Madonna *is* the mother of Christ. To ask whether our space is Euclidian or Non-Euclidian is like disputing whether this assertion may be more truly made of the Sistine Madonna or of the Madonna della Sedia. For like Raphael's pictures all our conceptual geometries are ideal interpretations of a reality, which they surpass in beauty and symmetry, but upon which they ultimately depend, and it would be hard to adduce more eloquent testimony of the dependence of these theoretic structures on practical needs than the fact that from the first the conceptual interpretation of spatial experiences instinctively adopted by mankind should have been that which subsequent analysis has shown to be the simplest, easiest, and most manageable.

§ 43. For illustrative purposes the construction of the conception of Time is vastly inferior to that of Space. The conception of Time involves a much more arduous effort of abstraction and its lack of '*Anschaulichkeit*' is such that it can hardly be conceived, and certainly cannot be used, without an appeal to spatial metaphor. Hence I must confine myself to a few hints showing the close analogy of the method of its conceptual construction with that of Space, in the hope that they may prove $\varphi\omega\nu\acute{\alpha}\nu\tau\alpha\ \sigma\upsilon\nu\epsilon\tau\omicron\iota\sigma\iota\nu$.

Nothing but misunderstanding of the nature of Time is possible unless it is recognised that the word covers *three* different things which may be distinguished as *subjective*, *objective*, and *conceptual* Time.

Of these subjective Time (or *times*, since every centre of experience possesses an indefinite plurality of his own, if we do not—as for practical purposes we always do—exclude the times of dreams, etc.) alone can claim to be a matter of immediate experience. It consists in the psychical facts of succession and memory, and its 'present time' always has duration. It forms the psychological basis of all time-constructions, but for practical purposes it is well nigh useless. Our subjective time estimates vary too enormously for us to live by them. The time which to the philosopher may pass all too rapidly in metaphysical discussion, may bore the schoolboy to extinction; and conversely the philosopher might prefer extinction to listening for three hours a-day to a discussion of cricket matches or to a Parliamentary debate.

Hence for the purposes of what Prof. Ward calls intersubjective intercourse it is necessary to devise or somehow to advance to a 'Time' which shall be more objective. *Objective* Time is what we live by, and what we read upon the faces of our 'time-pieces' (provided they 'keep time'!) correcting thereby our subjective estimates of the flow of successive experience. As this example shows, objective time depends upon constructions (including that of our watches) and motions, or more precisely, upon the *synchronism* of motions and the assumption of physical constants.

But it remains wholly relative, and this enables the philosopher to deduce some curious and interesting consequences.^[41]

To reach absolute 'Newtonian' Time, flowing equably and immutably from a infinite and irrevocable Past, through a 'punctual' (*i.e.* durationless and infinitely divisible) and yet exclusively real Present, to an infinite Future, conceptual postulation has to be called into play. The absoluteness and equable flow are demands for a constancy which objective Time will not show; the construction of Past, Present, and Future results from the need to arrange the facts of memory; the infinity and infinite divisibility, as in the case of space, result from a thinking away of the contents and limits of the actual experience. But on the whole the usefulness of conceptual Time seems very limited, and is counterbalanced by troublesome antinomies as soon as it is separated from the experience it is intended to interpret.^[42]

§ 44. I pass over the axiomatic postulates of arithmetic, the methodological postulates which are found in every science and the metaphysical postulates involved in the conception of substance: the first, because I may refer to Prof. James's account of them in the *Principles of Psychology* (ii. p. 653 foll.) and have no desire to 'outdo the good man'; the second, because of their number and the amount of special knowledge which it requires to expound and appreciate them; the third, because in all its traditional forms I am sceptical as to the usefulness, and therefore as to the validity, of the conception of substance, and cannot stay to propound measures for its reform.^[43]

§ 45. On the other hand too much may be gleaned from the consideration of postulates which are not yet acknowledged to be axiomatic, nor indeed universally to be valid, for us to pass them over. I may mention in the first instance the assumption of Teleology.^[44]

Teleology in one sense is an indubitable postulate of the highest significance. In the interpretation of nature, we must always assume a certain conformity between nature and human nature, in default of which the latter cannot understand the former. Thus human nature is the sole key to nature which we possess, and if it will not unlock the arcana, we must resign ourselves to sceptical despair. If, therefore, every attempt to know rests on the fundamental methodological postulate that the world is knowable, we must also postulate that it can be interpreted *ex analogia hominis* and anthropomorphically.^[45] And moreover *the closer* the correspondence between nature and human nature can be shown to be, *the more knowable* will the world be, and the more we shall feel at home in it. Hence, it is a methodological demand to anthropomorphise the world as far as ever we can.

Now human nature, in so far as it is 'rational,' is teleological—it pursues ends which appear to it reasonable and desirable, and tends to become more and more systematically purposive the more highly it develops. Of course, therefore, we must try to find this action for the sake of ends throughout nature, or if we fail, to find the most efficient approximation to it we can. Now, with regard to the actions of our fellowmen, and indeed in the case of all animal life, the full ascription of teleology is not only practicable but practically unavoidable. But with regard to the other departments of nature, and indeed nature as a whole, modern science has persuaded itself that teleological explanations are at present unworkable and therefore 'unscientific.' The ideal of scientific explanation is 'mechanical,' and this is taken to be anti-teleological.

So far, therefore, teleology *remains a postulate*, which it is not possible to carry through, and to render an axiom of biological or physical research. The situation is deplorable, but not desperate. For, in the first place, the antiteleological bias of natural science is largely due to the perverse use professing teleologists have made of their postulate. Instead of treating it as a method whereby to understand the complex relations of reality, they have made it into an ἀργός λόγος which shut off all further possibilities of investigation, by ascribing everything to a 'divine purpose,' and then, in order to shirk the laborious task of tracing the working of the divine intelligence in the world, adding the suicidal 'rider' that the divine purpose was *inscrutable*. Teleological explanation was thus rendered impossible, while the mechanical assumptions were found to be capable of working out into valuable results, it is true of a lower order of intelligibility. In the second place, although the teleological postulate is not useful in the present stage of scientific development, that is not to say that it cannot be rendered useful hereafter. It is open to any one to adopt the method, and if he can show valuable results attained thereby, he will not find true scientists slow to recognise its validity. Hitherto indeed the method has failed, not so much because men could not use it, as because they would not, or at least would not use it properly. If, at any time, they should want to use it, they would probably

find that it was useful far beyond the limits of its present application.

§ 46. But even these limits are in reality far wider than is ordinarily recognised. In another way from that which we have just been considering the validity of teleology is raised above the very possibility of question. What are these mechanical explanations which have so successfully preoccupied the fertile fields of science? They are devices of our own, *methods* which we have tried and found workable, ideals conceived by our *intelligence* to which we are coaxing reality to approximate; they are pervaded by human purposiveness through and through, and prove that, so far as we have tried, nature conforms to our thoughts and desires, and is *anthropomorphic enough to be mechanical*. In being mechanical it plays into our hands, as James says, and confesses itself to be intelligible and teleological *to that extent at least*. There is no intelligibility without conformity with human nature, and human nature is teleological. A mechanically law-abiding universe does conform to some of our demands and is so far intelligible. We must assume, therefore, that this conformity will extend further, that, if we try sincerely and pertinaciously and ingeniously enough, we can force nature to reveal itself as *wholly* conformable to our nature and our demands. Nothing less than that will content us, and nothing less than that need be assumed. Nay, any attempt to stop short at something less, *e.g.* at a world which was mechanically intelligible, or even intellectually intelligible, but ignored our moral and emotional demands, would seem to jeopardise all that the pertinacity of our sciences has achieved. A world which can be 'fully explained,' but only in mechanical or barely intellectual terms, is *not* fully intelligible, is *not* fully explained. Nay, at bottom it involves the most abysmal unintelligibility of all, to my thinking. It lures us into thinking it rational, only to check our progress by insuperable barriers later on. Compared with the tantalising torment of this supposition, and the derisive doubt it reflects on all our earlier 'successes,' a scepticism which consistently assumes a fundamental incommensurability of man and his experience, and a consequent unknowableness of the world, and patiently endures their practical consequences, would seem more tolerable and dignified.

We must, therefore, assume all or nothing—we have some (unless we choose to lose it by lack of faith); we must hope and strive for all. Shall we then, in face of all the successes of our sciences, infer that all intelligence (our own included) is a fond delusion for which there is no room *vis-à-vis* of true reality? *O miseris hominum mentes, o pectora caeca!* Can it really be that they cannot see that every triumph of the most rabidly 'anti-teleological' mechanical method is, from the 'synoptic' standpoint of philosophy, so much more welcome testimony to the power of the human mind and will to grapple with its experience, and confirms the validity of its teleological assumptions? At all events such blindness, whether it be involuntary or voluntary, is not possible to one who has grasped the truth that theoretic truths are the children of postulation. His eyes are opened, and the question whether teleology is valid is finally closed. For is not his whole theory one continuous and overwhelming illustration of the doctrine that without purposive activity there would be no knowledge, no order, no rational experience, nothing to explain, and no means of explaining anything? What, in a word, is his whole account of mental organisation but a demonstration of the *teleology of axioms*?

§ 47. I must pass over with a mere mention sundry postulates of a religious character, whose position has been rendered still more dubious than that of teleology by the prevailing misconceptions as to the validity of postulation. An intelligent reader will perhaps gather from what has been said in the last section why the Personality of God should be esteemed an indispensable postulate. The fact again that the goodness of God is a methodological postulate^[46] will be found to throw much light on the rationality of all religions, just as the pitiably inadequate way in which it has actually been carried out illustrates the irrationality which unfortunately ever clings even to the best of them.

Is Immortality a postulate, as Kant maintained? If so, in what sense and to what extent? These are questions well worthy of being pondered, not without a cautious discrimination between immortality in Heaven and in Hell. But at present we are too profoundly ignorant as to what men actually desire in the matter, and why, and how, to decide what they ought to desire. Hence, pending the publication of the results of a statistical inquiry undertaken by the American Branch of Society for Psychical Research, which I hope will yield copious and valuable data, profitable

discussion of these questions must be postponed.^[47]

VII

§ 48. Having in the above sections exemplified the method by which the postulatory nature of representative axioms may be displayed, I may proceed to round off my essay with some concluding reflections.

I will begin with a couple of cautions. In the first place in default of a knowledge of the historical details of the psychological development of our earlier postulates, I have had to content myself with schematic derivations in logical order. The real procedure was probably far more complicated, casual, and gradual, and far less conscious than I have represented it. In fact I see little reason to suppose that any of the makers of the early postulates had any consciousness of the logical import of their procedure or knew why they made them. We know this often to have been the case, that, *e.g.* the logical and geometrical postulates were used long before they were reflected on scientifically, and still longer before they were *understood*. But this is no real difficulty, and we can study the psychological processes involved by observing any one who is persuading himself of the truth of what he would like and would find it convenient to believe, *e.g.* that he loves where money is, or that being in love his mistress is perfection. It is only for the cold-blooded analysis of an unconcerned observer that logical chasms yawn in such processes; the agent himself in the heat of action is wafted over them unawares by the impetuous flow of instinctive feeling, and would doubtless reject our analysis of his motives with the sincerest indignation.

For to an unreflective and uncritical mind whatever looks likely to gratify desire presents itself with an inevitableness and aesthetic self-evidence which precludes all doubt. And we are all unreflective and uncritical enough to accept the self-evidence also of the devices we denominate 'truth,' until at least the doubt as to their real character has been forced upon us.

It should be clear from this how I should conceive the logical question with regard to postulation to be related to the psychological, and how I should reply to an objector who was willing to grant that postulation is the method whereby we come by our axioms psychologically, but denied that this affected the logical problem of their justification.

To this we should reply that we also distinguish between the motives which assume and the trials which justify an axiom. A postulate does not become axiomatic until it has been found to be workable and in proportion as it is so. But we deny that the two questions can be separated and logic be cut adrift from psychology and dissipated in the ether of the unintelligible. Psychological processes are the vehicles of truth, and logical value must be found in psychological fact *or nowhere*. Before a principle can have its logical validity determined, it must be tried; and it can be tried only if some one can be induced to postulate it. Logical possibilities (or even 'necessities') are nothing until they have somehow become psychologically actual and active. A 'truth' which no one ever conceives is nothing. It is certainly no truth.

Hence it is impossible to treat the logical question of axioms without reference to the actual processes whereby they are established, and their actual functioning in minds which entertain the logical in close connection with their other ideals. If therefore it is by postulation that we *do know*, we cannot but base on postulation our theory of how we *ought to know*. Here, as elsewhere, the ideals of the normative science must be developed out of the facts of the descriptive science. Regarded from the standpoint of the higher *purpose* of the former,^[48] the psychological processes must be purged of the hesitations, inconsistencies and irrelevancies which clog them in their actual occurrence, and when this evaluation is completed, it yields the norms which *ought to be*, but as yet *are only in part*.

Thus (as must indeed have become obvious to a careful reader of the preceding sections) the logical account of Postulation is an idealised version of the course of actual postulating. But for this very reason it has a guiding power over the actual processes, which the fancy processes of an abstracted logic, legislating vainly in the void, can never claim.

§ 49. Secondly, I am of course aware that in applying to the problem of knowledge the *method of origins* I am debarred in one sense from giving a *complete* explanation. For granting that I have succeeded in connecting our

cognitive apparatus with the earlier functions of consciousness by means of the principle of the postulate, it is open to any one to demand the reason why we should be capable of feeling and volition, and so gradually to drive me back into the formless, mindless, undifferentiated void which is conceived to precede all evolution. That this difficulty should occur in *all* theories is no answer, and a poor consolation.

The true answer is that the method of origins is of relative validity and that in the end we *never* find out 'what a thing really is' by asking 'what it was in the beginning.' Nor does the true value of the method reside in the (illusory) starting-point to which it goes back, but in the knowledge it acquires on the way. The true nature of a thing is to be found in its validity—which, however, must be *connected* rather than *contrasted* with its origin. 'What a thing really is' appears from what it *does*, and so we must study its whole career. We study its past to forecast its future, and to find out what it is really 'driving at.' Any complete explanation, therefore, is by final causes, and implies a knowledge of ends and aims which we can often only imperfectly detect.

All this of course applies also to the case of knowledge. Knowledge cannot be derived out of something other and more primitive; even if the feat were feasible, it would only explain *ignotum per ignotius*. Hence to analyse it into 'elements' and 'primary forms' is in a manner illusory; so long as its structure is not completed, the final significance of its forms cannot be clearly mirrored in its structure. Ultimately, therefore, it is impossible to explain the higher by the lower, the living organism of growing truth by its dissected members. If we desire completeness, we must look not to the *ύλη*, as in different ways our theories of knowledge all have done,^[49] but to the *τέλος*. And to claim definitive finality for any present theory of knowledge would seem to crave no slight equipment with the panoply of ignorance.

But is the end in sight? Can we infer from what knowledge has been, and now is, what it should be, and God willing, will be? We can of course (as explained in the last section) construct, to some extent, the ideal on the basis of our knowledge of the actual. But though therefore an answer is not perhaps wholly inconceivable even to this question, an exploration of the seventh Heaven is hardly germane to the present inquiry.

§ 50. I cannot more fitly close this rough sketch of a great subject than by adding a few words as to the probable effect on philosophy of a more general adoption of the principle I have advocated. It may, I think, reasonably be anticipated that it will have a reviving and most invigorating influence upon an invaluable constituent of human culture which too often has been betrayed by the professing champions who were bound and paid to sustain its banner against the attacks of fools and Philistines. Philosophy is once again, as so often in its history, 'the sick man' among the sciences: it has suffered unspeakable things at the hands of a multitude of its doctors, whose chief idea of a proper regimen for the philosophic spirit has been to starve it upon a lowering diet of logic-chopped conundrums, to cut it off from all communication with real life and action, to seclude it in arid and inaccessible wastes whence there is an easy descent to the House of Hades, and by constant blood-letting to thrust it down into the gloomy limbo where a pallid horde of useless, half-hypostasised abstractions vainly essays to mimic the wealth and variety, the strength and beauty of reality. That philosophy has not perished out of the land under such treatment testifies with no uncertain voice to its divine destiny and to the glow of ambrosial fire that courses in its veins. We may expect, therefore, a marvellous recovery once it has by the might of postulation shaken off the twofold curse under which it has for so long laboured, the curse of intellectualism and the curse of a will that does not know itself, and in its self-diremption turns against itself, to postulate the conflicting and incongruous.

Intellectualism, to which it has already several times been necessary to refer in unappreciative terms, is naturally the besetting sin of philosophers, and a perennial idol of the academic theatre. Intellect being the distinguishing characteristic of the philosopher and the indispensable means of holding a mirror up to nature, he exhibits a constant tendency to substitute the part for the whole and to exalt it into the sole and only true reality. His infatuation is such that it seems to him to matter not one whit, that it proves patently and pitifully unequal to its *rôle*; that to maintain itself in the false position into which it has been forced, it has to devastate reality and call it truth; that it has to pervert the empty *schemata* of 'universal' abstractions from their legitimate *use* as *means* to classification, and erecting them into *ends*, to substitute them for the living reals; that even when it has been permitted to cut and carve

the Real at its pleasure, and to impose on us two-dimensional images in lieu of the solid fact, it has in the end to confess that the details and individuality of the Real elude its grasp.

But when, for the sake of bolstering up an inhuman and incompetent, and impracticable intellectualism, an attempt is made to cut down the scope of philosophy to an attenuated shred which intellectualism can contemplate without dismay, when we are required to believe that philosophy need aim only at understanding,^[50] and at understanding in general, without either condescending to the particular, or considering that which 'passeth all understanding,' it is high time to protest. It is the individual concrete experience in all its fulness which every man worthy of the name wants philosophy to interpret for him; and a philosophy which fails to do this is for him false. Intellectualism is necessarily false because it only operates with conceptions, whose purpose and essential construction incapacitate them from accounting for the individuality from which they have abstracted. It reduces the philosopher to an impotent spectator of a *supra-rational* universe which he can interpret only as *irrational*.

And in this case the on-looker sees nothing of the game, because he sees a game which he does not understand, and cannot understand unless he has tried to play it. It is a false abstraction of intellectualism to divorce thinking from doing, and to imagine that we can think the world truly without acting in it rightly. But in reality this is quite impossible. 'Pure' thought which is not tested by action and correlated with experience, means nothing, and in the end turns out mere pseudo-thought. Genuine thinking must issue from and guide action, must remain immanent in the life in which it moves and has its being. Action, conversely, must not be opposed to thought, nor supposed to be effective without thought; it needs thought, and elaborates it; it is not a "red mist of doing" which obscures the truth, but the radiance which illumines it.

In Lebensfluten, im Thatensturm,
Wallt es auf und ab . . .
So schafft es am sausenden Webstuhl der Zeit
Und wirket der *Menschheit* lebendiges Kleid.

Faust, Act i. Scene I (with the necessary variations).

To trace, therefore, to their root in the postulations of personal need the arrogant pretensions of 'pure thought,' and thus to get rid of the haunting shadow of intellectualism, reopens the way to a philosophy which remains in touch with life, and strenuously participates in the solution of its problems.

§ 51. Such practical success in its completeness is, of course, a sufficiently remote contingency; but there is a further reason for the expectation that it will be greatly facilitated by the proof of the volitional foundations of our intelligence. For it disposes also of another serious and inveterate source of philosophic confusion, and constant stimulus to philosophic despair, viz. the notion that philosophic difficulties arise out of the *incompetence of the reason*. Now there is some foundation for this notion. A certain class of philosophic problems, to wit, those which have no earthly concern with practical life (like, *e.g.* the Absolute and its habits), and so cannot be tested by action, are really *ultra vires* of an intelligence which was devised and developed to harmonise experience. But then we have all along contended that such problems are not real problems at all, but miasmatic exhalations of a false intellectualism, which has misconstrued its own nature and powers. Such problems are insoluble, because in the end they are unmeaning. But there are other cases where the intellect seems to fail us in questions of the most pressing practical importance. Hence so long as the dogma of the primacy of the intellect prevails, it seems hard to acquit the human reason of the charge of being infected with fundamental disabilities and insoluble antinomies. For is it not easy to draw up a formidable array of incompatible assertions and to provide each with a 'proof' in logically unexceptionable terms?

But of these 'difficulties' it now seems possible to propound a profounder explanation. The real root of the trouble may be found to lie in the will rather than in the reason, whose innocent amiability is always ready to provide an intellectual formulation for the most discordant aims and the most obscure desires. Let us, therefore, insist that before the reason is condemned untried, and philosophy is finally reduced to a trivial game which may amuse but can never really satisfy, it is necessary to inquire whether the 'antinomies' do not arise rather from volitional discord

than from intellectual defect, whether the contradictions of the reason are not forced upon it by an indecision which knows not what it wills, a division of the will which insists on willing incompatibles, or a lack of courage and endurance which fails to follow out what it wills.

That this should be the case need not arouse surprise. We are all sufficiently aware that systematic thinking, clearly conscious of its aim, is a somewhat infrequent phenomenon, and that in myriad ways intellectual confusion renders possible the co-existence of inconsistent doctrines in the same mind. But the intellectualist phrasing of our terminology renders us slow to recognise that *infirmity of purpose* is a no less rampant affliction, that numbers of really intelligent persons are addicted to the retention of incompatible desires, and either do not know what they will, or cannot 'make up their minds' to will consistently. Indeed it is probably true to say that 'confusion of will' is a better description of a very common psychic condition than 'confusion of thought,' and that most of what passes for the latter is more properly ascribed to the former. For all such volitional indecision, whereof a desire both to eat one's cake and to have it is by no means the least venial form, masks itself in intellectual vestments, and so contributes to cast doubt upon the faith that, with patience and proper treatment, our minds are adequate instruments to cope with the practical problems of our experience.

In illustration of this doctrine a single very common and glaring instance may, on the principle *exemplo ab uno disce omnes*, suffice. The insolubility of the 'mystery of evil' arises simply and solely out of the fact that people will neither abandon the practice of passing moral judgments on events, nor the dogmas which render all ethical valuation ultimate foolishness. As soon as they make up their distracted 'minds' (*wills*) which of the incompatible alternatives they will choose to abide by, whether they prefer to vindicate the supreme validity of moral distinctions, or the 'infinity of God' and the absolute 'unity of the universe,' the mystery disappears. For Evil visibly arises from certain limitations, performs certain functions, subserves certain purposes, is connected with certain conditions, in the economy of the universe, all of which admit of being empirically determined or conjectured. All that is required, therefore, to bring the existence of Evil into accord with the postulated goodness of God is that we should conceive (as we easily can) a deity subject to the limitations, working under the conditions, aiming at the purposes, which we believe ourselves to have discovered. Similarly, if we deny that moral attributes can fitly be applied to the deity or the universe, Evil is simply a natural fact like any other. Of course, if we refuse to do either of these things, and insist on maintaining *both* these positions, we manufacture a mystery which is as insoluble as we have made it. It is insoluble because we *will not either* live in (or with) a non-moral universe, or give up indulging a perverted taste that revels in infinities. Thus it is not our 'reason' which is to blame, but our 'will.' For neither reason nor revelation compels us to frustrate the belief in God's goodness by that in His infinity.

And even in cases where a modicum of genuine intellectual confusion has entered into the composition of an antinomy of the reason, it is impossible to deny the complicity, and ultimate responsibility, of the 'will.' Intellectual confusion is most frequently the product of habitual thoughtlessness, carelessness, inattention and laziness, and even where it is due to sheer stupidity,^[51] the obstinacy which adheres to an antinomy after its solution has been clearly displayed is a volitional quality—of a reprehensible kind.

We may infer then that there are no theoretically insoluble problems, or at all events that we have no right to assume so, but are methodologically bound to assume the opposite.^[52]

§ 52. But, it may be urged, how does all this, even if true, help Philosophy? Is it not just as bad, nay worse, that men should hug intellectual contradictions to their bosoms, and cherish absurdities with an affectionate devotion, than that they should believe themselves their reluctant victims?

I think not, for three reasons which I will set down.

(1) The man who realises that he is inconsistent, deliberately and of malice prepense, can more easily be made to feel the responsibility for his mental condition than he who imagines that the very constitution of his mind brings him to his wretched pass. Moreover in most cases, the desires which attach him to one or other of the incompatible beliefs are not such as he really respects, and would easily faint from shame or wither with publicity.

(2) Confusion of will may be remedied, like confusion of thought, by attention and reconsideration. Many who have hitherto proceeded unchallenged in blissful ignorance of their motives, who have lacked a clear consciousness of what they will and why, once they had their attention called to it would set to work to clear away the confusion.

(3) There is hope from the young, even though the old generation should obstinately cling to its inveterate errors. Errors as a rule are not renounced; they die out. In this particular case the prospect is perhaps a little brighter than usual, because not all who now believe in their speculative impotence really enjoy their position. And the young are in a different case: their natural sympathies are rather with a philosophy that makes the blood run warm than with one that congeals the natural flow of thought by the chilling vacuity of its abstractions. And they have little or no inducement to adopt the gratuitous and uncomfortable perplexities of their seniors. And besides errors clearly seen to arise from perverse attitudes of will are no longer so readily communicable as while they were disguised as theoretic dogmas. Nor should it be forgotten that intellectualism is intrinsically duller, less inspiring, and more difficult to follow than voluntarism, which appeals more directly to the hopefulness, courage and enterprise which are the precious heritage of youth.

So that on the whole we need not despair of Philosophy. Nay, we may gradually hope to see substituted for the disheartening and slothful twaddle (*pace* all the distinguished persons who have repeated it) about the infirmities of the human reason and its impotence to break through the adamant barriers of an alien world, exhortations bidding us be of good cheer and go forth to seek, if we would find, urging us to act if we would know, and to learn if we would act, and assuring us that if insuperable limits exist to the development and progression of the human spirit, man has not as yet taken pains enough to discover them, while it is the part of a cur and a craven to assume them without need.

And so we must essay to weld together thought and deed, or rather, to resist the forces that insidiously dis sever them and pit the intellect against the will in meaningless abstraction. For by a philosophy that seriously strives to comprehend the whole of experience, the unity of the agent is never forgotten in the multiplicity of his pursuits, but is emphatically affirmed in the principle of postulation, which pervades all theoretic activity, generates all axioms, initiates all experiment, and sustains all effort. For ever before the eyes of him whose wisdom *dares* to postulate will float, in clearer or obscurer outline, the beatific vision of that perfect harmony of all experience which he in all his strenuous struggles is striving to attain. And instead of immolating his whole life to the enervating sophism that it is all an 'appearance' to be transcended by an unattainable 'reality,' let him hold rather that there can be for him no reality but that to which he wins his way through and by means of the appearances which are its presage.

Notes

- [1] It is hard to say why this inadequate illustration should continue to haunt philosophic discussion, the more so as it always missed the point. For as Lotze has so well observed the 'receptivity' of the tablet is really due to the intrinsic nature of the wax and not to an absence of positive character.
- [2] It is significant that most of the words which have been used to express the conception (?) of creation are metaphors which meant originally to hew or shape. For if, as seems probable, the conception of absolute 'creation' ('out of nothing') be ultimately unthinkable, the assumed 'metaphor' will be able to supply the true conception.
- [3] We do not, of course, affect the fact by assuming its absolute determination, 'if only we knew all.' For this is merely a postulate, devised to keep us in good heart while calculating, and in order that we may be able to forecast the future. We *may be* able to achieve the realisation of this ideal in a cosmos absolutely determined and absolutely satisfactory, but at present it is not true that *for us practically* all things are determined.
- [4] In this aspect logic is related to psychology as morphology is to physiology. A 'logical necessity,' therefore, always rests upon, issues from, and is discovered by, a psychological need. Dr. Bosanquet adopts the comparison, but does not work it out, in his *Logic*.
- [5] Cf. *Contemp. Rev.*, June 1897, p. 878.
- [6] Cf. James' *Will to believe*, pp. 28, 61, 103 foll. And it is, of course, psychologically true that not only our *delusions* but also our *perceptions* depend on what we come prepared to perceive.
- [7] Regarded as labels perhaps, neither of these terms is quite satisfactory. But as philosophic, like political, parties are commonly named (or nicknamed) by their opponents, it would be premature to attempt fixity of nomenclature until criticism has had its say.
- [8] It is thus the exact converse of the account given above (§ 6) in which moulding activity was due to 'mind,' and resistance to 'matter.'

- [9] There is of course ample evidence that this was actually felt to be the case. Primitive animism is (*inter alia*) an explanation of the material chaos of experience by a corresponding spiritual chaos, conceived as rather more manageable.
- [10] To meet the obvious criticism that most people are quite unaware that they postulate in knowing, it may be well to add that the postulating, like the 'experimenting,' may proceed with little or no consciousness of its nature. Indeed this is precisely the reason why the voluntarist and postulatory character of mental life has been so little recognised, and its assertion still appears such a novelty in philosophy. The philosophers who indignantly reject it argue that they are not aware of postulating, and *ergo* there is no such thing. But this is a mere *ignoratio elenchi*, and does not prove that they are not deluded.
- [11] Sometimes, it is true, a principle which is assumed as useful for one purpose turns out later on to conflict with another. The scientific postulate of determinism and its relations to the ethical postulate of freedom are a good example. In such cases there is a temptation to deny the absolute universality of one or both of the conflicting principles. But the better way of obviating the conflict is to emphasise the fact that each principle is relative to the purpose for which it was assumed, and that consequently, on their respective planes and from their several points of view, both principles may be universally valid, though one or the other, or both, must eventually be subjected to reinterpretation.
- [12] It is a great satisfaction to me to find myself on this point in complete agreement with Dr. Hodder (*The Adversaries of the Sceptic*, p. 14) whose merciless castigation of the half-hearted postulations of some modern logicians, can, to my mind, be met only by an open avowal of the fundamental part played by postulation in the constitution of all knowledge (including Dr. Hodder's scepticism).
- [13] I am of course painfully aware that the term *necessity* is exceedingly equivocal. At first sight it seems as though we could distinguish—
1. 'Absolute' and intrinsic necessity *sui (et optimi) juris* (Aristotle's ἀναγκαῖον ἀπλῶς καὶ πρῶτως), of which the 'necessity' of *a priori* truths is commonly reputed to be an illustrious example.
 2. The conditional necessity of a logical train of thought, in which the conclusion follows 'necessarily' from its premisses.
 3. The necessity of the 'necessary conditions' under which all actions take place. This influence of the given material is Aristotle's οὐ οὐκ ἄνευ.
 4. The necessity of means to ends (Aristotle's ὄν οὐκ ἄνευ τό ἀγαθόν), which renders the 'necessary' ultimately the 'needful.'
 5. The psychical feeling of 'having to' or 'compulsion' (Aristotle's ἀναγκαῖον βία).
- But in reality the last two alone of these senses are primary and descriptive of ultimate facts about our mental constitution, from which the others may be derived. The feeling of necessity (No. 5) may be evoked by a variety of circumstances, by physical constraint, by attempts to deny facts of perception, or to interrupt a train of thought which coheres, either logically, or psychologically (for all minds, or for an individual's mind). It arises wherever a volition is thwarted, and not until this occurs; hence the necessity alike of fact and of reasoning appears to be 'implicit.' The truth, however, is that factual data and logical reasonings are *not* 'necessary' in themselves; their 'necessity' is only aroused in consciousness when the will needs to affirm them against resistance in the pursuit of its ends. That '2 and 2 must be 4' only marks the rejection of some other result: *if* we desire to adhere to our system of arithmetical assumptions and are determined to go on counting, we cannot be called upon to add 2 and 2 in any other way. But behind the '*can't*' there always lurks a '*won't*': the mind cannot stultify itself, because it will not renounce the conceptions it needs to order its experiences. The feeling of necessity, therefore, is at bottom an emotional accompaniment of the purposive search for the means to realise our ends (sense 4). And inasmuch as the pursuit of means is unmeaning except in beings working under limitations in their choice of means, which means are themselves extracted from the resisting material (ύλη), the 'necessity' of the material conditions (sense 3) comes to be bound up with and included under this (4th) head.
- As for 'absolute necessity' (sense 1) it is altogether a misnomer, involving a contradiction *in adjectis*: necessity is always dependence, and the factual only becomes 'necessary' by having a ground assigned to it, *i.e.* by sacrificing its independence and becoming hypothetical. But the hypothetical necessity of thought (sense 2), into which it is thus absorbed, is itself reducible to a means: Our coherent systems of 'necessary connection' can (and will) be shown to be but means for the realisation of our purposes in thinking, and apart from these possess no necessity. No one need add 2 and 2 as 4 unless he needs to add, *i.e.* *wills* to add them, because he *needs* arithmetic.
- [14] Most recently and lucidly in Mr. Hobhouse's *Theory of Knowledge*, p. 42.
- [15] That this actually occurs has been shown above (§ 14).
- [16] Aristotle, *Eth. Nich.* x. 4. 11.
- [17] *Philosophical Conceptions and Practical Results*, p. 24.
- [18] *Republic*, 509 B.
- [19] *Critique of Pure Reason*, § 3, *s.f.*
- [20] Kant supports an erroneous doctrine by downright psychological blunders. Thus he asserts that he can 'think' empty Space and Time, but not objects out of Space and Time. If we resolve the ambiguity of 'think,' it will appear (a) that both the objects and the 'pure intuitions' are alike *conceivable*, and (b) that they are alike *unimaginable*. But Kant contrasts the unimaginableness of the objects with the conceivableness of the intuitions to make the latter seem 'prior.'
- [21] I do not of course maintain that either science does this at present. It is just because they are not clear as to the character and relations of their respective standpoints that they leave a sort of no man's land around their border line, for hybrids like epistemology to squat on.
- [22] Of course this has not wholly escaped the notice of philosophers even in former days, and so we may remind ourselves of Spinoza's *conatus in suo esse perseverare*, of Schopenhauer's *Will-to-live*, nay of Herbart's account of sensations as self-maintenances of the soul. At the present day, voluntarism bids fair to prevail over intellectualism, having obtained the support of men like James, Wundt, Ward, Sigwart, Stout, Paulsen, Renouvier, etc. Since this was written the recently published remains of Nietzsche (*Wille zur Macht*, iii. I. 1901)

have made it manifest that he also conceived our axioms as postulates transformed into 'truths' by their usefulness, and that I might have quoted from him some telling phrases to this effect.

To all this even Mr. Bradley's reiterated asseverations (*Mind*, N.S., No. 41, pp. 7, 9, etc.) that he "cannot accept" principles which he sees to be subversive of the dogmatic assumptions of his whole philosophy hardly seem a sufficient counterpoise.

- [23] Of course this doctrine does not involve a denial of the existence (though it does of the rationality) of a 'pure' or 'disinterested' love of knowledge 'for its own sake.' All our functions are liable to perversion and so as a psychological fact, there may also occur such a perversion of the cognitive instinct; nay, history would even seem to show that it may persist and even be strengthened in the course of evolution. But then the explanation probably is that 'useless' knowledge is not nearly so useless as its votaries suppose, and that in the minds which are capable of it the love for it is connected with other mental capacities which are both useful and valuable.
- [24] I am not here concerned with the intra-psychological questions as to the number and nature of the psychic 'elements,' as to whether special volitional or affective processes must be recognised in psychology. For the question cannot be answered until it has been settled what is to be the *purpose* of the psychological description. Like all conceptions, the meaning and validity of those of psychology are relative to the use to which they are put, and in the abstract they have only potential meaning. As Dr. Stout well puts it (p. 10), one "cannot be right or wrong without reference to some interest or purpose," and before bespeaking their readers' attention for the details of their classifications, psychologists should above all make it clear *what they propose to do with them*. Now I do not doubt that it is quite possible, and for certain purposes even convenient, to devise descriptions in purely intellectual terms, which entirely dispense with the conceptions of volition, of agency, and even of feeling. Only of course it must not be imagined that any such descriptions are final and sacrosanct. They are purely methodological, and their validity extends as far as their usefulness. And the question arises whether they can be used for a purpose like that which we have in view. If not, we are entitled to describe differently. For it cannot be too soon or too strongly emphasised that there is no intrinsic or absolute truth or falsehood about any of our assumptions, apart from the manner of their working.
- [25] How can one prevent one's knowledge and one's belief from affecting each other? If we think at all, either the knowledge will render impossible the practical belief, or a conviction will arise that a belief we constantly act on, which permeates our whole being and never fails us, *is true*. Personally indeed I should say that such was the origin and ratification of all truth. Conversely, a belief which is foredoomed to remain a mere belief soon ceases to be acted on, *i.e.* to be a belief in any real sense at all. The history of religions is full of deplorable examples.
- [26] Or rather of its dominant doctrine.
- [27] *Philosophie in Deutschland*.
- [28] *E.g.* in the introduction to the *Critique of Judgment*.
- [29] *Naturalism and Agnosticism*, ii. p. 133. The whole passage is admirable.
- [30] For its relation to Aristotelianism, cf. the art. on 'Useless Knowledge' in *Mind*, N.S., No. 42.
- [31] Practical postulation is the real meaning of his much misconstrued doctrine of the 'Will to believe.' It is not so much exhortation concerning what we *ought to do* in the future as analysis of what we *have done* in the past. And the critics of the doctrine have mostly ignored the essential addition to the 'will to believe,' viz. '*at your risk*,' which leaves ample scope for the testing of the assumed belief by experience of its practical results.
- [32] It seems to me clear that *psychologically* perception of likeness is ultimate, anterior to identity, and incapable of being reduced to it. The analysis of likeness into 'partial identity' is a *logical* procedure which occurs when we manipulate the psychical fact with a logical purpose and try to *conceive* the likeness. But then conception is admittedly a matter of thought, and thought rests on the principle of identity. What the tautology of the Hegelian definition ('identity is *identity* in difference') is struggling to express (or conceal?) is really the *use* of logical conception in manipulating the felt likenesses. Cf. the discussion in *Mind* between Prof. James and Mr. Bradley (N.S., Nos. 5-8).
- [33] If identity were ever *found*, Dr. Hodder's amusing strictures (*Adversaries of the Sceptic*, pp. 116-117) on Mr. Bradley's "identity of indiscernibles" would be fatal to every use of the principle.
- [34] It is conceivable, indeed, that this process actually preceded in practical urgency, and therefore, in time, the recognition of individuality. But that would not impair the argument, for under some conditions the discrimination of individuals is unnecessary and all individuals are *practically the same*.
- [35] Or, as Lady Welby says, it is the *pressure of the answer* that puts the question.
- [36] *Principles of Psychology*, ii. p. 671.
- [37] The possible exception is biology, in which the Darwinian method puts difficulties into the way of regarding organisms as automata whose psychic life may be neglected. For if psychic activity has no causal efficacy, why was it developed in a world controlled by the law of struggle for existence?
- [38] The simplest and most flagrant proof of this is to be found in the fact that Kant does not distinguish between the problems of *pure* and *applied* geometry.
- [39] I should say 'certainly' myself, but I prefer to understate the case. Cf. *Riddles of the Sphinx*, ch. ix. § 2-11.
- [40] The alleged geometry of *four* dimensions seems to rest on a false analogy. The three dimensions of our space constructions are empirical and depend on the original data of our space-senses, which in their turn seem to depend on the triple analysis of motions by means of the semicircular canals of the ear, and the behaviour of the physical bodies to which they are adaptations.
- [41] Cf. *Riddles of the Sphinx*, ch. iii. § 6, and ix. § 11.

- [42] The best illustration of this perhaps is that if conceptual Time were real, or 'Time' really had the attributes postulated for it, Achilles never could catch the Tortoise. Cf. *Riddles of the Sphinx*, ch. xii. § 11.
- [43] The outcome of orthodox philosophic criticism of the substance-concept at present seems to be that substantiality cannot be legitimately affirmed of the psychical and must be reserved for the physical. Meanwhile the substantiality of the ultimate counters of physical speculation is becoming more and more shadowy, and its assumption more and more superfluous. The situation seems to me somewhat absurd. But *que faire* so long as those concerned prefer the fog and decline to clear the atmosphere? Cf. however my art. on the *Conception* of 'Ενέργεια (*Mind*, N.S., No. 36).
- [44] By Teleology I do *not* mean, of course, the contemplation of parts in their relation to a whole, but what the word—until (by way of compromising with its enemies) it was attenuated to a futile shadow of itself—always meant, viz. the assertion of purposive intelligence as an agency in the world.
- [45] Cf. *Riddles of the Sphinx*, ch. v. § 6. As Dr. Julius Schultz well says in his stimulating book, *Die Psychologie der Axiome* (p. 99 and *passim*), to think is to anthropomorphise. Intellectualists will perhaps admit this eventually—shortly before their extinction!
- [46] Even devil-worshippers must assume that their god is susceptible to flattery and capable of being propitiated, *i.e.* is *good to them*; a thorough fiend would paralyse all religious activity. As for a non-moral 'deity,' it cannot be worshipped and may with impunity be ignored. Wherefore, *q.e.d.*
- [47] It seems probable that the result will be to show that though immortality may be (logically) a postulate it is not (psychologically) postulated, or at least not postulated with scientific intent. If so the anomalous condition of the doctrine is due to the fact that the great majority do not desire to have a future life proved, do not attempt to prove it, and thwart the few who do attempt this. Hence the state of our knowledge remains commensurate with that of our desire, and the 'postulate' remains a mere postulate without developing into a source of knowledge.
- [48] Which of course is itself a psychological fact.
- [49] For both the apriorist and the empiricist accounts add this to the catalogue of their shortcomings. Both explain the system of actual concrete knowledge which is growing to completion in the cosmic process, by a reference to the beggarly elements out of which it has arisen, composed of the abhorrent skeleton of the *a priori* necessities of thought in the one case, and the crude mass of chaotic experiences in the other. But from the standpoint of the τέλος what knowledge has become is truer, because more valuable, than what it has become out of.
- [50] The thing is of course really impossible. A mere 'understanding' which excludes any aspect of the given reality is not even understanding in the end, and would only aggravate our sense of the burden of an unintelligible world. Cf. § 46.
- [51] The moral valuation of stupidity is much too high; perhaps in consequence the prevalence of an intellectualism which, by divorcing knowledge and action, encourages people to bestow moral admiration upon what is intellectually contemptible. Stupidity is commonly supposed to have an intrinsic affinity with virtue, or at least to be a quality of which no man or woman need be morally ashamed. In reality, however, it may be questioned whether it is ever found without moral guilt, either in its possessors or in their social medium. Hence, as well as for the purpose of evincing the sincerity of their rejection of intellectualism, it would be well if philosophers devoted some of their surplus ingenuity to inverting their ancient paradox that 'vice is ignorance' and expounding in its stead the profounder and more salutary dictum that 'ignorance is vice.'
- [52] I am already inclined to deny that, despite the utmost efforts of sceptics, theologians, and Mr. Bradley, there exist any theoretical antinomies which can be pronounced insoluble in principle—unless indeed the 'eternal cussedness' of man be esteemed such.

The Analysis of Mind/Lecture XIV

←Lecture XIII: Truth and Falsehood ..I by Bertrand Russell

Lecture XV: Characteristics of Mental Phenomena→

Lecture XIV: Emotions and Will

On the two subjects of the present lecture I have nothing original to say, and I am treating them only in order to complete the discussion of my main thesis, namely that all psychic phenomena are built up out of sensations and images alone.

Emotions are traditionally regarded by psychologists as a separate class of mental occurrences: I am, of course, not concerned to deny the obvious fact that they have characteristics which make a special investigation of them necessary. What I am concerned with is the analysis of emotions. It is clear that an emotion is essentially complex, and we have to inquire whether it ever contains any non-physiological material not reducible to sensations and images and their relations.

Although what specially concerns us is the analysis of emotions, we shall find that the more important topic is the physiological causation of emotions. This is a subject upon which much valuable and exceedingly interesting work has been done, whereas the bare analysis of emotions has proved somewhat barren. In view of the fact that we have defined perceptions, sensations, and images by their physiological causation, it is evident that our problem of the analysis of the emotions is bound up with the problem of their physiological causation.

Modern views on the causation of emotions begin with what is called the James-Lange theory. James states this view in the following terms ("Psychology," vol. ii, p. 449):

"Our natural way of thinking about these coarser emotions, grief, fear, rage, love, is that the mental perception of some fact excites the mental affection called the emotion, and that this latter state of mind gives rise to the bodily expression. My theory, on the contrary, is that *the bodily changes follow directly the perception of the exciting fact, and that our feeling of the same changes as they occur IS the emotion* (James's italics). Common sense says: we lose our fortune, are sorry and weep; we meet a bear, are frightened and run; we are insulted by a rival, are angry and strike. The hypothesis here to be defended says that this order of sequence is incorrect, that the one mental state is not immediately induced by the other, that the bodily manifestations must first be interposed between, and that the more rational statement is that we feel sorry because we cry, angry because we strike, afraid because we tremble, and not that we cry, strike, or tremble, because we are sorry, angry, or fearful, as the case may be. Without the bodily states following on the perception, the latter would be purely cognitive in form, pale, colourless, destitute of emotional warmth."

Round this hypothesis a very voluminous literature has grown up. The history of its victory over earlier criticism, and its difficulties with the modern experimental work of Sherrington and Cannon, is well told by James R. Angell in an article called "A Reconsideration of James's Theory of Emotion in the Light of Recent Criticisms."^[59] In this article Angell defends James's theory and to me--though I speak with diffidence on a question as to which I have little competence--it appears that his defence is on the whole successful.

Sherrington, by experiments on dogs, showed that many of the usual marks of emotion were present in their behaviour even when, by severing the spinal cord in the lower cervical region, the viscera were cut off from all communication with the brain, except that existing through certain cranial nerves. He mentions the various signs which "contributed to indicate the existence of an emotion as lively as the animal had ever shown us before the spinal operation had been made."^[60] He infers that the physiological condition of the viscera cannot be the cause of the emotion displayed under such circumstances, and concludes: "We are forced back toward the likelihood that the visceral expression of emotion is SECONDARY to the cerebral action occurring with the psychical state.... We may with James accept visceral and organic sensations and the memories and associations of them as contributory to

primitive emotion, but we must regard them as re-enforcing rather than as initiating the psychosis."*

Angell suggests that the display of emotion in such cases may be due to past experience, generating habits which would require only the stimulation of cerebral reflex arcs. Rage and some forms of fear, however, may, he thinks, gain expression without the brain. Rage and fear have been especially studied by Cannon, whose work is of the greatest importance. His results are given in his book, "Bodily Changes in Pain, Hunger, Fear and Rage" (D. Appleton and Co., 1916).

The most interesting part of Cannon's book consists in the investigation of the effects produced by secretion of adrenin. Adrenin is a substance secreted into the blood by the adrenal glands. These are among the ductless glands, the functions of which, both in physiology and in connection with the emotions, have only come to be known during recent years. Cannon found that pain, fear and rage occurred in circumstances which affected the supply of adrenin, and that an artificial injection of adrenin could, for example, produce all the symptoms of fear. He studied the effects of adrenin on various parts of the body; he found that it causes the pupils to dilate, hairs to stand erect, blood vessels to be constricted, and so on. These effects were still produced if the parts in question were removed from the body and kept alive artificially.^[61]

Cannon's chief argument against James is, if I understand him rightly, that similar affections of the viscera may accompany dissimilar emotions, especially fear and rage. Various different emotions make us cry, and therefore it cannot be true to say, as James does, that we "feel sorry because we cry," since sometimes we cry when we feel glad. This argument, however, is by no means conclusive against James, because it cannot be shown that there are no visceral differences for different emotions, and indeed it is unlikely that this is the case.

As Angell says (*loc. cit.*): "Fear and joy may both cause cardiac palpitation, but in one case we find high tonus of the skeletal muscles, in the other case relaxation and the general sense of weakness."

Angell's conclusion, after discussing the experiments of Sherrington and Cannon, is: "I would therefore submit that, so far as concerns the critical suggestions by these two psychologists, James's essential contentions are not materially affected." If it were necessary for me to take sides on this question, I should agree with this conclusion; but I think my thesis as to the analysis of emotion can be maintained without coming to a probably premature conclusion upon the doubtful parts of the physiological problem.

According to our definitions, if James is right, an emotion may be regarded as involving a confused perception of the viscera concerned in its causation, while if Cannon and Sherrington are right, an emotion involves a confused perception of its external stimulus. This follows from what was said in Lecture VII. We there defined a perception as an appearance, however irregular, of one or more objects external to the brain. And in order to be an appearance of one or more objects, it is only necessary that the occurrence in question should be connected with them by a continuous chain, and should vary when they are varied sufficiently. Thus the question whether a mental occurrence can be called a perception turns upon the question whether anything can be inferred from it as to its causes outside the brain: if such inference is possible, the occurrence in question will come within our definition of a perception. And in that case, according to the definition in Lecture VIII, its non-mnemic elements will be sensations. Accordingly, whether emotions are caused by changes in the viscera or by sensible objects, they contain elements which are sensations according to our definition.

An emotion in its entirety is, of course, something much more complex than a perception. An emotion is essentially a process, and it will be only what one may call a cross-section of the emotion that will be a perception, of a bodily condition according to James, or (in certain cases) of an external object according to his opponents. An emotion in its entirety contains dynamic elements, such as motor impulses, desires, pleasures and pains. Desires and pleasures and pains, according to the theory adopted in Lecture III, are characteristics of processes, not separate ingredients. An emotion--rage, for example--will be a certain kind of process, consisting of perceptions and (in general) bodily movements. The desires and pleasures and pains involved are properties of this process, not separate items in the stuff of which the emotion is composed. The dynamic elements in an emotion, if we are right in our analysis, contain, from our point of view, no ingredients beyond those contained in the processes considered in Lecture III.

The ingredients of an emotion are only sensations and images and bodily movements succeeding each other according to a certain pattern. With this conclusion we may leave the emotions and pass to the consideration of the will.

The first thing to be defined when we are dealing with Will is a VOLUNTARY MOVEMENT. We have already defined vital movements, and we have maintained that, from a behaviourist standpoint, it is impossible to distinguish which among such movements are reflex and which voluntary. Nevertheless, there certainly is a distinction. When we decide in the morning that it is time to get up, our consequent movement is voluntary. The beating of the heart, on the other hand, is involuntary: we can neither cause it nor prevent it by any decision of our own, except indirectly, as e.g. by drugs. Breathing is intermediate between the two: we normally breathe without the help of the will, but we can alter or stop our breathing if we choose.

James ("Psychology," chap. xxvi) maintains that the only distinctive characteristic of a voluntary act is that it involves an idea of the movement to be performed, made up of memory-images of the kinaesthetic sensations which we had when the same movement occurred on some former occasion. He points out that, on this view, no movement can be made voluntarily unless it has previously occurred involuntarily.^[62]

I see no reason to doubt the correctness of this view. We shall say, then, that movements which are accompanied by kinaesthetic sensations tend to be caused by the images of those sensations, and when so caused are called VOLUNTARY.

Volition, in the emphatic sense, involves something more than voluntary movement. The sort of case I am thinking of is decision after deliberation. Voluntary movements are a part of this, but not the whole. There is, in addition to them, a judgment: "This is what I shall do"; there is also a sensation of tension during doubt, followed by a different sensation at the moment of deciding. I see no reason whatever to suppose that there is any specifically new ingredient; sensations and images, with their relations and causal laws, yield all that seems to be wanted for the analysis of the will, together with the fact that kinaesthetic images tend to cause the movements with which they are connected. Conflict of desires is of course essential in the causation of the emphatic kind of will: there will be for a time kinaesthetic images of incompatible movements, followed by the exclusive image of the movement which is said to be willed. Thus will seems to add no new irreducible ingredient to the analysis of the mind.

[59]^ "Psychological Review," 1916.

[60]^ Quoted by Angell, loc. cit.

[61]^ Cannon's work is not unconnected with that of Mosso, who maintains, as the result of much experimental work, that "the seat of the emotions lies in the sympathetic nervous system." An account of the work of both these men will be found in Goddard's "Psychology of the Normal and Sub-normal" (Kegan Paul, 1919), chap. vii and Appendix.

[62]^ "Psychology," Vol. ii, pp. 492-3.

DEFINING MORALITY

The Human Origin of Morals/Chapter VI

←Chapter V . . . by Joseph McCabe Chapter VII→
Chapter VI. The Christian Ethic

It is difficult to see how any man or woman, knowing even the few facts which it is possible to give here, can doubt the modern theory of moral evolution. We are not taking a few bones of prehistoric man and guessing how he lived. It is there, all over the earth, today. Religion and morals, and the combination of the two or ethical religion, are actually in the human workshop, being made. We more advanced workers have finished the job and are watching the apprentices.

Yes, you may say (with a sigh), it was a natural evolution: unguided, wasteful, replete with the folly of childhood, dark with the awful impulses of the real savage. We do not understand *that*. But the time came. Revelation of a holier law broke gradually upon this turbid world. God made himself known to one or two peoples—why to one or two, or so late, we don't know—and bade them purify the conscience of the world. Stumbling man was taken by the hand and led—at last.

Well, it takes several volumes of this series to show that this is as false as your idea that God created man and watched over him. Five or six volumes show you, from the facts, that nothing new or original appeared in Judea, Monotheism was already known. An ethic higher than that of the Hebrew prophets already existed. You do not know the truth about the ancient world.

You do not *realize* the truth about Judea. Even while I am writing this, in the heart of London, the papers tell that an English clergyman is in terrible difficulties with his flock, because he declines to read certain Psalms in church. You can guess which Psalms—those about dashing the heads of little children on the stones, and so on; and these Psalms were written quite late in the history of Judea! And the English congregation rises in wrath, and says that, in the year 1926, these things shall be regarded as the Word of God!

Other volumes of this series study Christianity in every conceivable respect; every great phase of its history, every aspect of its doctrines and ethic, every claim of beneficent influence. Nothing is omitted. But it is necessary here to show, as I show in *The Origin of Religion* (Little Blue Book No. 1008), that nothing miraculous or new or puzzling happened when Christ appeared. The stream of natural moral evolution just flowed on.

I do not say "stood still," remember. It was flowing all the time. In the year 1 A.D. it ought to be much further than in the year 1000 B.C. There would be no great miracle if the world were more enlightened in 500 A.D. than in 500 B.C. It was a thousand years older, and three great civilizations had meantime added to man's heritage. (As a matter of fact, the world was not more enlightened in 500 A.D. than in 500 B.C.)

The only point here is to complete my story by inquiring if the new religion fits naturally into it. And instead of making a number of general statements for which the evidence cannot appear here, let us take two or three of what are commonly said to be the greatest moral innovations of Christ and Christianity.

The first is, of course, the Golden Rule. Let us take it humanly. Nobody is ever going to love his neighbor as he loves himself. It can't be done. The human emotions are not made that way. An ideal ought to be something that can be realized. But we need not worry about this. You are, of course, aware that the Golden Rule of life in this sense—"Thou shalt love thy neighbor as thyself"—is a quotation from the Old Testament. It is not a Christian contribution to the pretty sentiments of moralists. It was centuries old when Christ quoted it.

And as the Old Testament, as we have it, was written only late in the fifth century B.C., its doctrine of brotherly love is more than a century later than that of Buddha. Moreover, Buddha meant *universal* love. Every man was not the Jew's brother, or his neighbor. I presume you know enough about the ancient Jews to know that. The Jews never even professed to love anybody but Jews; and they hated quite a lot of those. A quarrel between Jews is something to see. But Buddha, as any work on him will tell you, demanded that every man should love his fellows as a mother—these were his words—loves her children.

Let us take the Golden Rule in its proper and more or less practical form: Act toward others as you would have them act toward you. It is a most admirable principle. It puts the Utilitarian theory of morality in a nutshell. It is so obvious a rule of social life that one is not surprised that few ever said it. It is not profound. It is common sense. If you do not want lies told you, don't tell them. If you want just, honorable, kindly, brotherly treatment from Cyrus P. Shorthouse or James F. Longshanks, try to get it by reciprocity.

Rather a good word, is it not, reciprocity? Well the famous and Agnostic Chinese moralist Confucius gave that as the Golden Rule six hundred years before Christ was born, and nearly two hundred years before the Old Testament, as we have it, was written!

You may shake your head, and say that you have heard that Rationalist story before. Confucius, you may say, only taught the Golden Rule in a negative form: Do not unto others what you do not want them to do to you. That statement is found in the whole of Christian literature. Christ went much farther than Confucius.

Well, presuming that you do not read Chinese, and that the translation of the Chinese classics is not available, open that most accessible of books, the *Encyclopaedia Britannica* at the article "Confucius." It is written by a Christian missionary and fine Chinese scholar, Dr. Legge, and it has been available to every Christian writer for years. Dr. Legge says, quoting the expression Golden Rule: "Several times he [Confucius] gave that rule in express words: What you do not like when done to yourself, do not do to others."

At last a disciple asked him if he could put it in a word. He gave the composite Chinese word "reciprocity." Dr. Legge tells us that it consists of the two characters "as heart": let the impulses of your heart be the same as those you want in your neighbor's. And lest you should still insist that *perhaps* it was only negative, Dr. Legge goes on: "It has been said [it is said by nearly every other Christian writer] that he only gave the rule in a negative form, but he understood it in its positive and most comprehensive form." No Chinese scholar differs from that; and Professor Westermarck gives other sayings of Confucius to prove it.

Yet, but, you say, there is the counsel to love even one's enemies. Did any moralist in the world ever urge such a refinement of virtue before Christ?

Alas, yes. (Pardon the sigh, but I never love my enemies. I think it would be bad social policy to do so. It rather encourages the mean and unjust.) The Old Testament says: "Thou shalt not hate thy brother." Perhaps that is not conclusive, but it does not matter, as the counsel had been given quite explicitly long before.

The great Chinese sage, Lao-tse, a contemporary of Confucius and nearly as Rationalistic as Confucius, said: "Recompense injury with kindness." That is near enough; and the doctrine seems to have been common in the humanitarian ethic of China. Later, in the fourth century B.C., we find the chief disciple of Confucius, the great moralist Mencius, who seems to have been the first in the world to condemn war, saying: "A benevolent man does not lay up anger' nor cherish resentment against his brother, but only regards him with affection and love."

There in the heart of Agnostic China, three hundred years before the Sermon on the Mount was delivered, you have the complete doctrine of loving your enemies as a commonplace of humanitarian morality.

Buddha in India taught the same doctrine. Love was to be universal, he insisted; and in the Dhammapada we read: "Hatred ceases by love: this is an old rule." It seems, in fact, to have been as common in India centuries before Christ as it was in China. In the "laws of Manu," compiled early in the Christian Era, but consisting of ancient Hindu writings, it is said: "Against an angry man let him not in return show anger: let him bless when he is cursed."

Non-Christian European moralists—Socrates and Plato, Seneca, Pliny, Epictetus and Marcus Aurelius—all had the same sentiment. "We ought not to retaliate, or render evil for evil to anyone," said Socrates, quoted approvingly by Plato. Seneca wrote a whole treatise on "Anger" condemning it in every form. It is therefore not in the least surprising that, when Greek influence began to be felt in Judea, as we see in *Ecclesiasticus* and *Proverbs*, the same sentiment is reproduced. "Thou shalt not hate thy brother," was already written in *Leviticus*; but, as I said before, the Jew's "brother" always meant a Jew. The sentiment, however, was now so common in every school of moralists that the finer Hebrews naturally adopted it, and, through the school of the Rabbi Hillel, it passed on to the Christians.

Here, then, is a sentiment, which thousands of Christian writers have claimed to be entirely original in Christ, actually found to be a commonplace of moralists for hundreds of years before Christ and in the "pagan" world. I trust the Christian reader will see in this a striking illustration of the way in which he is misled; but I will carry the argument just one step farther.

It occurred to no Christian, not even to Christ, that, if this moral sentiment is lofty, it ought pre-eminently to apply to man's conception of God. On what principle must Christ as man love his enemies, and Christ as God devise for them an eternity of fiendish torment? Let your Dr. Rileys answer that. And, since God, the ideal, was held to punish transgressors of his law, human and ecclesiastical society everywhere continued without scruple to do so.

We realize today that this is immoral. We inflict penalties to deter would-be transgressors, not as punishment. Who introduced this idea into the world? Plato and Aristotle. They taught the Greeks that the "punishment" of a criminal was "a moral medicine" and a deterrent. Then came Christianity, and the sentiment was lost. Punishment, as such, was more abominable than ever. At last a group of humanitarians, won the reform. Who were they? Grotius (a liberal Christian or semi-Rationalist, and the least effective), and then Hobbes, Montesquieu, Beccaria, Filangiere, Feuerbach, Schopenhauer, and (above all) Bentham—all Rationalists, most of the Agnostics.

We see this in detail elsewhere; and we also in another book make a full story of the moral sentiments of the Gospels. There is no sentiment put into the mouth of Christ which was not well known amongst the pagan moralists: not even the idea of giving the thief your trousers also (I am not sure of the particular garments) when he has taken your coat. The stream of moral evolution just runs on. The world at that time, from Rome to Alexandria, was full of sentimental moralizers. How their sentiments came to be put forth into the mouth of Christ is a question which we must answer by an historical study of the times.

Ethics (Spinoza)/Part 3

←Part II *Ethics by Benedictus de* Part IV→
Spinoza
Part III.

Part III. On the Origin and Nature of the Emotions.

Preface

Most writers on the emotions and on human conduct seem to be treating rather of matters outside nature than of natural phenomena following nature's general laws. They appear to conceive man to be situated in nature as a kingdom within a kingdom : for they believe that he disturbs rather than follows nature's order, that he has absolute control over his actions, and that he is determined solely by himself. They attribute human infirmities and fickleness, not to the power of nature in general, but to some mysterious flaw in the nature of man, which accordingly they bemoan, deride, despise, or, as usually happens, abuse : he, who succeeds in hitting off the weakness of the human mind more eloquently or more acutely than his fellows, is looked upon as a seer. Still there has been no lack of very excellent men (to whose toil and industry I confess myself much indebted), who have written many noteworthy things concerning the right way of life, and have given much sage advice to mankind. But no one, so far as I know, has defined the nature and strength of the emotions, and the power of the mind against them for their restraint.

I do not forget, that the illustrious Descartes, though he believed, that the mind has absolute power over its actions, strove to explain human emotions by their primary causes, and, at the same time, to point out a way, by which the mind might attain to absolute dominion over them. However, in my opinion, he accomplishes nothing beyond a display of the acuteness of his own great intellect, as I will show in the proper place. For the present I wish to revert to those, who would rather abuse or deride human emotions than understand them. Such persons will, doubtless think it strange that I should attempt to treat of human vice and folly geometrically, and should wish to set forth with rigid reasoning those matters which they cry out against as repugnant to reason, frivolous, absurd, and dreadful. However, such is my plan. Nothing comes to pass in nature, which can be set down to a flaw therein ; for nature is always the same, and everywhere one and the same in her efficacy and power of action ; that is, nature's laws and ordinances, whereby all things come to pass and change from one form to another, are everywhere and always the same ; so that there should be one and the same method of understanding the nature of all things whatsoever, namely, through nature's universal laws and rules. Thus the passions of hatred, anger, envy, and so on, considered in themselves, follow from this same necessity and efficacy of nature ; they answer to certain definite causes, through which they are understood, and possess certain properties as worthy of being known as the properties of anything else, whereof the contemplation in itself affords us delight. I shall, therefore, treat of the nature and strength of the emotions according to the same method, as I employed heretofore in my investigations concerning God and the mind. I shall consider human actions and desires in exactly the same manner, as though I were concerned with lines, planes, and solids.

Definitions

- I. By an adequate cause, I mean a cause through which its effect can be clearly and distinctly perceived. By an inadequate or partial cause, I mean a cause through which, by itself, its effect cannot be understood.
 - II. I say that we act when anything takes place, either within us or externally to us, whereof we are the adequate cause ; that is (by the foregoing definition) when through our nature something takes place within us or externally to us, which can through our nature alone be clearly and distinctly understood. On the other hand, I say that we are passive as regards something when that something takes place within us, or follows from our nature externally, we being only the partial cause.
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III. By emotion I mean the modifications of the body, whereby the active power of the said body is increased or diminished, aided or constrained, and also the ideas of such modifications.

N.B. If we can be the adequate cause of any of these modifications, I then call the emotion an activity, otherwise I call it a passion, or state wherein the mind is passive.

Postulates

I. The human body can be affected in many ways, whereby its power of activity is increased or diminished, and also in other ways which do not render its power of activity either greater or less.

N.B. This postulate or axiom rests on Postulate i. and Lemmas v. and vii., which see after II. xiii.

II. The human body can undergo many changes, and, nevertheless, retain the impressions or traces of objects (cf. II. Post. v.), and, consequently, the same images of things (see note II. xvii.).

Propositions

Prop. I. *Our mind is in certain cases active, and in certain cases passive. In so far as it has adequate ideas it is necessarily active, and in so far as it has inadequate ideas, it is necessarily passive.*

Proof.—In every human mind there are some adequate ideas, and some ideas that are fragmentary and confused (II. xl. note). Those ideas which are adequate in the mind are adequate also in God, inasmuch as he constitutes the essence of the mind (II. xl. Coroll.), and those which are inadequate in the mind are likewise (by the same Coroll.) adequate in God, not inasmuch as he contains in himself the essence of the given mind alone, but as he, at the same time, contains the minds of other things. Again, from any given idea some effect must necessarily follow (I. xxxvi.) ; of this effect God is the adequate cause (III. Def. i.), not inasmuch as he is infinite, but inasmuch as he is conceived as affected by the given idea (II. ix.). But of that effect whereof God is the cause, inasmuch as he is affected by an idea which is adequate in a given mind, of that effect, I repeat, the mind in question is the adequate cause (II. xi. Coroll.). Therefore our mind, in so far as it has adequate ideas (III. Def. ii.), is in certain cases necessarily active ; this was our first point. Again, whatsoever necessarily follows from the idea which is adequate in God, not by virtue of his possessing in himself the mind of one man only, but by virtue of his containing, together with the mind of that one man, the minds of other things also, of such an effect (II. xi. Coroll.) the mind of the given man is not an adequate, but only a partial cause ; thus (III. Def. ii.) the mind, inasmuch as it has inadequate ideas, is in certain cases necessarily passive ; this was our second point. Therefore our mind, &c. *Q.E.D.*

Corollary.—Hence it follows that the mind is more or less liable to be acted upon, in proportion as it possesses inadequate ideas, and, contrariwise, is more or less active in proportion as it possesses adequate ideas.

Prop. II. *Body cannot determine mind to think, neither can mind determine body to motion or rest or any state different from these, if such there be.*

Proof.—All modes of thinking have for their cause God, by virtue of his being a thinking thing, and not by virtue of his being displayed under any other attribute (II. vi.). That, therefore, which determines the mind to thought is a mode of thought, and not a mode of extension ; that is (II. Def. i.), it is not body. This was our first point. Again, the motion and rest of a body must arise from another body, which has also been determined to a state of motion or rest by a third body, and absolutely everything which takes place in a body must spring from God, in so far as he is regarded as affected by some mode of extension, and not by some mode of thought (II. vi.) ; that is, it cannot spring from the mind, which is a mode of thought. This was our second point. Therefore body cannot determine mind, &c. *Q.E.D.*

Note.—This is made more clear by what was said in the note to II. vii., namely, that mind and body are one and the same thing, conceived first under the attribute of thought, secondly, under the attribute of extension. Thus it follows that the order or concatenation of things is identical, whether nature be conceived under the one attribute or the other ; consequently the order of states of activity and passivity in our body is simultaneous in nature with the order of states of activity and passivity in the mind. The same conclusion is evident from the manner in which we proved II. xii.

Nevertheless, though such is the case, and though there be no further room for doubt, I can scarcely believe, until the fact is proved by experience, that men can be induced to consider the question calmly and fairly, so firmly are they convinced that it is merely at the bidding of the mind, that the body is set in motion or at rest, or performs a variety of actions depending solely on the mind's will or the exercise of thought. However, no one has hitherto laid down the limits to the powers of the body, that is, no one has as yet been taught by experience what the body can accomplish solely by the laws of nature, in so far as she is regarded as extension. No one hitherto has gained such an accurate knowledge of the bodily mechanism, that he can explain all its functions ; nor need I call attention to the fact that many actions are observed in the lower animals, which far transcend human sagacity, and that somnambulists do many things in their sleep, which they would not venture to do when awake : these instances are enough to show, that the body can by the sole laws of its nature do many things which the mind wonders at.

Again, no one knows how or by what means the mind moves the body, nor how many various degrees of motion it can impart to the body, nor how quickly it can move it. Thus, when men say that this or that physical action has its origin in the mind, which latter has dominion over the body, they are using words without meaning, or are confessing in specious phraseology that they are ignorant of the cause of the said action, and do not wonder at it.

But, they will say, whether we know or do not know the means whereby the mind acts on the body, we have, at any rate, experience of the fact that unless the human mind is in a fit state to think, the body remains inert. Moreover, we have experience, that the mind alone can determine whether we speak or are silent, and a variety of similar states which, accordingly, we say depend on the mind's decree. But, as to the first point, I ask such objectors, whether experience does not also teach, that if the body be inactive the mind is simultaneously unfitted for thinking? For when the body is at rest in sleep, the mind simultaneously is in a state of torpor also, and has no power of thinking, such as it possesses when the body is awake. Again, I think everyone's experience will confirm the statement, that the mind is not at all times equally fit for thinking on a given subject, but according as the body is more or less fitted for being stimulated by the image of this or that object, so also is the mind more or less fitted for contemplating the said object.

But, it will be urged, it is impossible that solely from the laws of nature considered as extended substance, we should be able to deduce the causes of buildings, pictures, and things of that kind, which are produced only by human art ; nor would the human body, unless it were determined and led by the mind, be capable of building a single temple. However, I have just pointed out that the objectors cannot fix the limits of the body's power, or say what can be concluded from a consideration of its sole nature, whereas they have experience of many things being accomplished solely by the laws of nature, which they would never have believed possible except under the direction of mind : such are the actions performed by somnambulists while asleep, and wondered at by their performers when awake. I would further call attention to the mechanism of the human body, which far surpasses in complexity all that has been put together by human art, not to repeat what I have already shown, namely, that from nature, under whatever attribute she be considered, infinite results follow. As for the second objection, I submit that the world would be much happier, if men were as fully able to keep silence as they are to speak. Experience abundantly shows that men can govern anything more easily than their tongues, and restrain anything more easily than their appetites ; when it comes about that many believe, that we are only free in respect to objects which we moderately desire, because our desire for such can easily be controlled by the thought of something else frequently remembered, but that we are by no means free in respect to what we seek with violent emotion, for our desire cannot then be allayed with the remembrance of anything else. However, unless such persons had proved by experience that we do many things which we afterwards repent of, and again that we often, when assailed by contrary emotions, see the better and follow the worse, there would be nothing to prevent their believing that we are free in all things. Thus an infant believes that of its own free will it desires milk, an angry child believes that it freely desires vengeance, a timid child believes that it freely desires to run away ; further, a drunken man believes that he utters from the free decision of his mind words which, when he is sober, he would willingly have withheld : thus, too, a delirious man, a garrulous woman, a child, and others of like complexion, believe that they speak from the free decision of their mind, when they are in reality unable to restrain their impulse to talk. Experience teaches us no less clearly than reason, that men

believe themselves to be free, simply because they are conscious of their actions, and unconscious of the causes whereby those actions are determined ; and, further, it is plain that the dictates of the mind are but another name for the appetites, and therefore vary according to the varying state of the body. Everyone shapes his actions according to his emotion, those who are assailed by conflicting emotions know not what they wish ; those who are not attacked by any emotion are readily swayed this way or that. All these considerations clearly show that a mental decision and a bodily appetite, or determined state, are simultaneous, or rather are one and the same thing, which we call decision, when it is regarded under and explained through the attribute of thought, and a conditioned state, when it is regarded under the attribute of extension, and deduced from the laws of motion and rest. This will appear yet more plainly in the sequel. For the present I wish to call attention to another point, namely, that we cannot act by the decision of the mind, unless we have a remembrance of having done so. For instance, we cannot say a word without remembering that we have done so. Again, it is not within the free power of the mind to remember or forget a thing at will. Therefore the freedom of the mind must in any case be limited to the power of uttering or not uttering something which it remembers. But when we dream that we speak, we believe that we speak from a free decision of the mind, yet we do not speak, or, if we do, it is by a spontaneous motion of the body. Again, we dream that we are concealing something, and we seem to act from the same decision of the mind as that, whereby we keep silence when awake concerning something we know. Lastly, we dream that from the free decision of our mind we do something, which we should not dare to do when awake.

Now I should like to know whether there be in the mind two sorts of decisions, one sort illusive, and the other sort free? If our folly does not carry us so far as this, we must necessarily admit, that the decision of the mind, which is believed to be free, is not distinguishable from the imagination or memory, and is nothing more than the affirmation, which an idea, by virtue of being an idea, necessarily involves (II. xlix.). Wherefore these decisions of the mind arise in the mind by the same necessity, as the ideas of things actually existing. Therefore those who believe, that they speak or keep silence or act in any way from the free decision of their mind, do but dream with their eyes open.

Prop. III. *The activities of the mind arise solely from adequate ideas ; the passive states of the mind depend solely on inadequate ideas.*

Proof.—The first element, which constitutes the essence of the mind, is nothing else but the idea of the actually existent body (II. xi. and xiii.), which (II. xv.) is compounded of many other ideas, whereof some are adequate and some inadequate (II. xxix. Coroll., II. xxxviii. Coroll.). Whatsoever therefore follows from the nature of mind, and has mind for its proximate cause, through which it must be understood, must necessarily follow either from an adequate or from an inadequate idea. But in so far as the mind (III. i.) has inadequate ideas, it is necessarily passive : wherefore the activities of the mind follow solely from adequate ideas, and accordingly the mind is only passive in so far as it has inadequate ideas. *Q.E.D.*

Note.—Thus we see, that passive states are not attributed to the mind, except in so far as it contains something involving negation, or in so far as it is regarded as a part of nature, which cannot be clearly and distinctly perceived through itself without other parts : I could thus show, that passive states are attributed to individual things in the same way that they are attributed to the mind, and that they cannot otherwise be perceived, but my purpose is solely to treat of the human mind.

Prop. IV. *Nothing can be destroyed, except by a cause external to itself.*

Proof.—This proposition is self-evident, for the definition of anything affirms the essence of that thing, but does not negative it ; in other words, it postulates the essence of the thing, but does not take it away. So long therefore as we regard only the thing itself, without taking into account external causes, we shall not be able to find in it anything which could destroy it. *Q.E.D.*

Prop. V. *Things are naturally contrary, that is, cannot exist in the same object, in so far as one is capable of destroying the other.*

Proof.—If they could agree together or co-exist in the same object, there would then be in the said object something which could destroy it ; but this, by the foregoing proposition, is absurd, therefore things, &c. *Q.E.D.*

Prop. VI. *Everything, in so far as it is in itself, endeavours to persist in its own being.*

Proof.—Individual things are modes whereby the attributes of God are expressed in a given determinate manner (I. xxv. Coroll.) ; that is, (I. xxxiv.), they are things which express in a given determinate manner the power of God, whereby God is and acts ; now no thing contains in itself anything whereby it can be destroyed, or which can take away its existence (III. iv.) ; but contrariwise it is opposed to all that could take away its existence (III. v.). Therefore, in so far as it can, and in so far as it is in itself, it endeavours to persist in its own being. *Q.E.D.*

Prop. VII. *The endeavour, wherewith everything endeavours to persist in its own being, is nothing else but the actual essence of the thing in question.*

Proof.—From the given essence of any thing certain consequences necessarily follow (I. xxxvi.), nor have things any power save such as necessarily follows from their nature as determined (I. xxix.) ; wherefore the power of any given thing, or the endeavour whereby, either alone or with other things, it acts, or endeavours to act, that is (III. vi.), the power or endeavour, wherewith it endeavours to persist in its own being, is nothing else but the given or actual essence of the thing in question. *Q.E.D.*

Prop. VIII. *The endeavour, whereby a thing endeavours to persist in its own being, involves no finite time, but an indefinite time.*

Proof.—If it involved a limited time, which should determine the duration of the thing, it would then follow solely from that power whereby the thing exists, that the thing could not exist beyond the limits of that time, but that it must be destroyed ; but this (III. iv.) is absurd. Wherefore the endeavour wherewith a thing exists involves no definite time ; but, contrariwise, since (III. iv.) it will by the same power whereby it already exists always continue to exist, unless it be destroyed by some external cause, this endeavour involves an indefinite time.

Prop. IX. *The mind, both in so far as it has clear and distinct ideas, and also in so far as it has confused ideas, endeavours to persist in its being for an indefinite period, and of this endeavour it is conscious.*

Proof.—The essence of the mind is constituted by adequate and inadequate ideas (III. iii.), therefore (III. vii.), both in so far as it possesses the former, and in so far as it possesses the latter, it endeavours to persist in its own being, and that for an indefinite time (III. viii.). Now as the mind (II. xxiii.) is necessarily conscious of itself through the ideas of the modifications of the body, the mind is therefore (III. vii.) conscious of its own endeavour.

Note.—This endeavour, when referred solely to the mind, is called will, when referred to the mind and body in conjunction it is called appetite ; it is, in fact, nothing else but man's essence, from the nature of which necessarily follow all those results which tend to its preservation ; and which man has thus been determined to perform.

Further, between appetite and desire there is no difference, except that the term desire is generally applied to men, in so far as they are conscious of their appetite, and may accordingly be thus defined : Desire is appetite with consciousness thereof. It is thus plain from what has been said, that in no case do we strive for, wish for, long for, or desire anything, because we deem it to be good, but on the other hand we deem a thing to be good, because we strive for it, wish for it, long for it, or desire it.

Prop. X. *An idea, which excludes the existence of our body, cannot be postulated in our mind, but is contrary thereto.*

Proof.—Whatsoever can destroy our body, cannot be postulated therein (III. v.). Therefore neither can the idea of such a thing occur in God, in so far as he has the idea of our body (II. ix. Coroll.) ; that is (II. xi., xiii.), the idea of that thing cannot be postulated as in our mind, but contrariwise, since (II. xi., xiii.) the first element, that constitutes the essence of the mind, is the idea of the human body as actually existing, it follows that the first and chief endeavour of our mind is the endeavour to affirm the existence of our body : thus, an idea, which negatives the existence of our body, is contrary to our mind, &c. *Q.E.D.*

Prop. XI. *Whatsoever increases or diminishes, helps or hinders the power of activity in our body, the idea thereof increases or diminishes, helps or hinders the power of thought in our mind.*

Proof.—This proposition is evident from II. vii. or from II. xiv.

Note.—Thus we see, that the mind can undergo many changes, and can pass sometimes to a state of greater perfection, sometimes to a state of lesser perfection. These passive states of transition explain to us the emotions of pleasure and pain. By pleasure therefore in the following propositions I shall signify a passive state wherein the mind passes to a greater perfection. By pain I shall signify a passive state wherein the mind passes to a lesser perfection. Further, the emotion of pleasure in reference to the body and mind together I shall call stimulation (*titillatio*) or merriment (*hilaritas*), the emotion of pain in the same relation I shall call suffering or melancholy. But we must bear in mind, that stimulation and suffering are attributed to man, when one part of his nature is more affected than the rest, merriment and melancholy, when all parts are alike affected. What I mean by desire I have explained in the note to Prop. ix. of this part ; beyond these three I recognize no other primary emotion ; I will show as I proceed, that all other emotions arise from these three. But, before I go further, I should like here to explain at greater length Prop. x of this part, in order that we may clearly understand how one idea is contrary to another. In the note to II. xvii. we showed that the idea, which constitutes the essence of mind, involves the existence of body, so long as the body itself exists. Again, it follows from what we pointed out in the Corollary to II. viii., that the present existence of our mind depends solely on the fact, that the mind involves the actual existence of the body. Lastly, we showed (II. xvii., xviii. and note) that the power of the mind, whereby it imagines and remembers things, also depends on the fact, that it involves the actual existence of the body. Whence it follows, that the present existence of the mind and its power of imagining are removed, as soon as the mind ceases to affirm the present existence of the body. Now the cause, why the mind ceases to affirm this existence of the body, cannot be the mind itself (III. iv.), nor again the fact that the body ceases to exist. For (by II. vi.) the cause, why the mind affirms the existence of the body, is not that the body began to exist ; therefore, for the same reason, it does not cease to affirm the existence of the body, because the body ceases to exist ; but (II. xvii.) this result follows from another idea, which excludes the present existence of our body and, consequently, of our mind, and which is therefore contrary to the idea constituting the essence of our mind.

Prop. XII. *The mind, as far as it can, endeavours to conceive those things, which increase or help the power of activity in the body.*

Proof.—So long as the human body is affected in a mode, which involves the nature of any external body, the human mind will regard that external body as present (II. xvii.), and consequently (II. vii.), so long as the human mind regards an external body as present, that is (II. xvii. note), conceives it, the human body is affected in a mode, which involves the nature of the said external body ; thus so long as the mind conceives things, which increase or help the power of activity in our body, the body is affected in modes which increase or help its power of activity (III. Post. i.) ; consequently (III. xi.) the mind's power of thinking is for that period increased or helped. Thus (III. vi., ix.) the mind, as far as it can, endeavours to imagine such things. *Q.E.D.*

Prop. XIII. *When the mind conceives things which diminish or hinder the body's power of activity, it endeavours, as far as possible, to remember things which exclude the existence of the first-named things.*

Proof.—So long as the mind conceives anything of the kind alluded to, the power of the mind and body is diminished or constrained (cf. III. xii. Proof) ; nevertheless it will continue to conceive it, until the mind conceives something else, which excludes the present existence thereof (II. xvii.) ; that is (as I have just shown), the power of the mind and of the body is diminished, or constrained, until the mind conceives something else, which excludes the existence of the former thing conceived : therefore the mind (III. ix.), as far as it can, will endeavour to conceive or remember the latter. *Q.E.D.*

Corollary.—Hence it follows that the mind shrinks from conceiving those things, which diminish or constrain the power of itself and of the body.

Note.—From what has been said we may clearly understand the nature of Love and Hate. Love is nothing else but pleasure accompanied by the idea of an external cause : Hate is nothing else but pain accompanied by the idea of an external cause. We further see, that he who loves necessarily endeavours to have, and to keep present to him, the object of his love ; while he who hates endeavours to remove and destroy the object of his hatred. But I will treat of these matters at more length hereafter.

Prop. XIV. *If the mind has once been affected by two emotions at the same time, it will, whenever it is afterwards affected by one of these two, be also affected by the other.*

Proof.—If the human body has once been affected by two bodies at once, whenever afterwards the mind conceives one of them, it will straightway remember the other also (II. xviii.). But the mind's conceptions indicate rather the emotions of our body than the nature of external bodies (II. xvi. Coroll. ii.) ; therefore, if the body, and consequently the mind (III. Def. iii.) has been once affected by two emotions at the same time, it will, whenever it is afterwards affected by one of the two, be also affected by the other.

Prop. XV. *Anything can, accidentally, be the cause of pleasure, pain, or desire.*

Proof.—Let it be granted that the mind is simultaneously affected by two emotions, of which one neither increases nor diminishes its power of activity, and the other does either increase or diminish the said power (III. Post. i.). From the foregoing proposition it is evident that, whenever the mind is afterwards affected by the former, through its true cause, which (by hypothesis) neither increases nor diminishes its power of action, it will be at the same time affected by the latter, which does increase or diminish its power of activity, that is (III. xi. note) it will be affected with pleasure or pain. Thus the former of the two emotions will, not through itself, but accidentally, be the cause of pleasure or pain. In the same way also it can be easily shown, that a thing may be accidentally the cause of desire. *Q.E.D.*

Corollary.—Simply from the fact that we have regarded a thing with the emotion of pleasure or pain, though that thing be not the efficient cause of the emotion, we can either love or hate it.

Proof.—For from this fact alone it arises (III. xiv.), that the mind afterwards conceiving the said thing is affected with the emotion of pleasure or pain, that is (III. xi. note), according as the power of the mind and body may be increased or diminished, &c. ; and consequently (III. xii.), according as the mind may desire or shrink from the conception of it (III. xiii. Coroll.), in other words (III. xiii. note), according as it may love or hate the same. *Q.E.D.*

Note.—Hence we understand how it may happen, that we love or hate a thing without any cause for our emotion being known to us ; merely, as a phrase is, from sympathy or antipathy. We should refer to the same category those objects, which affect us pleurably or painfully, simply because they resemble other objects which affect us in the same way. This I will show in the next Prop. I am aware that certain authors, who were the first to introduce these terms "sympathy" and "antipathy," wished to signify thereby some occult qualities in things ; nevertheless I think we may be permitted to use the same terms to indicate known or manifest qualities.

Prop. XVI. *Simply from the fact that we conceive, that a given object has some point of resemblance with another object which is wont to affect the mind pleurably or painfully, although the point of resemblance be not the efficient cause of the said emotions, we shall still regard the first-named object with love or hate.*

Proof.—The point of resemblance was in the object (by hypothesis), when we regarded it with pleasure or pain, thus (III. xiv.), when the mind is affected by the image thereof, it will straightway be affected by one or the other emotion, and consequently the thing, which we perceive to have the same point of resemblance, will be accidentally (III. xv.) a cause of pleasure or pain. Thus (by the foregoing Corollary), although the point in which the two objects resemble one another be not the efficient cause of the emotion, we shall still regard the first-named object with love or hate. *Q.E.D.*

Prop. XVII. *If we conceive that a thing, which is wont to affect us painfully, has any point of resemblance with another thing which is wont to affect us with an equally strong emotion of pleasure, we shall hate the first-named thing, and at the same time we shall love it.*

Proof.—The given thing is (by hypothesis) in itself a cause of pain, and (III. xiii. note), in so far as we imagine it with this emotion, we shall hate it : further, inasmuch as we conceive that it has some point of resemblance to something else, which is wont to affect us with an equally strong emotion of pleasure, we shall with an equally strong impulse of pleasure love it (III. xvi.) ; thus we shall both hate and love the same thing. *Q.E.D.*

Note.—This disposition of the mind, which arises from two contrary emotions, is called vacillation ; it stands to the emotions in the same relation as doubt does to the imagination (II. xliv. note) ; vacillation and doubt do not differ one from the other, except as greater differs from less. But we must bear in mind that I have deduced this vacillation from causes, which give rise through themselves to one of the emotions, and to the other accidentally. I have done this, in order that they might be more easily deduced from what went before ; but I do not deny that vacillation of the disposition generally arises from an object, which is the efficient cause of both emotions. The human body is composed (II. Post. i.) of a variety of individual parts of different nature, and may therefore (Ax.i. after Lemma iii. after II. xiii.) be affected in a variety of different ways by one and the same body ; and contrariwise, as one and the same thing can be affected in many ways, it can also in many different ways affect one and the same part of the body. Hence we can easily conceive, that one and the same object may be the cause of many and conflicting emotions.

Prop. XVIII. *A man is as much affected pleasurably or painfully by the image of a thing past or future as by the image of a thing present.*

Proof.—So long as a man is affected by the image of anything, he will regard that thing as present, even though it be non-existent (II. xvii. and Coroll.), he will not conceive it as past or future, except in so far as its image is joined to the image of time past or future (II. xliv. note). Wherefore the image of a thing, regarded in itself alone, is identical, whether it be referred to time past, time future, or time present ; that is (II. xvi. Coroll.), the disposition or emotion of the body is identical, whether the image be of a thing past, future, or present. Thus the emotion of pleasure or pain is the same, whether the image be of a thing past or future. *Q.E.D.*

Note I.—I call a thing past or future, according as we either have been or shall be affected thereby. For instance, according as we have seen it, or are about to see it, according as it has recreated us, or will recreate us, according as it has harmed us, or will harm us. For, as we thus conceive it, we affirm its existence ; that is, the body is affected by no emotion which excludes the existence of the thing, and therefore (II. xvii.) the body is affected by the image of the thing, in the same way as if the thing were actually present. However, as it generally happens that those, who have had many experiences, vacillate, so long as they regard a thing as future or past, and are usually in doubt about its issue (II. xliv. note) ; it follows that the emotions which arise from similar images of things are not so constant, but are generally disturbed by the images of other things, until men become assured of the issue.

Note II.—From what has just been said, we understand what is meant by the terms Hope, Fear, Confidence, Despair, Joy, and Disappointment.^[5] Hope is nothing else but an inconstant pleasure, arising from the image of something future or past, whereof we do not yet know the issue. Fear, on the other hand, is an inconstant pain also arising from the image of something concerning which we are in doubt. If the element of doubt be removed from these emotions, hope becomes Confidence and fear becomes Despair. In other words, Pleasure or Pain arising from the image of something concerning which we have hoped or feared. Again, Joy is Pleasure arising from the image of something past whereof we have doubted the issue. Disappointment is the Pain opposed to Joy.

Prop. XIX. *He who conceives that the object of his love is destroyed will feel pain ; if he conceives that it is preserved he will feel pleasure.*

Proof.—The mind, as far as possible, endeavours to conceive those things which increase or help the body's power of activity (III. xii.) ; in other words (III. xii. note), those things which it loves. But conception is helped by those things which postulate the existence of a thing, and contrariwise is hindered by those which exclude the existence of a thing (II. xvii.) ; therefore the images of things, which postulate the existence of an object of love, help the mind's endeavour to conceive the object of love, in other words (III. xi. note), affect the mind pleasurably ; contrariwise those things, which exclude the existence of an object of love, hinder the aforesaid mental endeavour ; in other words, affect the mind painfully. He, therefore, who conceives that the object of his love is destroyed will feel pain, &c. *Q.E.D.*

Prop. XX. *He who conceives that the object of his hate is destroyed will also feel pleasure.*

Proof.—The mind (III. xiii.) endeavours to conceive those things, which exclude the existence of things whereby the body's power of activity is diminished or constrained ; that is (III. xiii. note), it endeavours to conceive such things as exclude the existence of what it hates ; therefore the image of a thing, which excludes the existence of what the mind hates, helps the aforesaid mental effort, in other words (III. xi. note), affects the mind pleurably. Thus he who conceives that the object of his hate is destroyed will feel pleasure. *Q.E.D.*

Prop. XXI. *He who conceives, that the object of his love is affected pleurably or painfully, will himself be affected pleurably or painfully ; and the one or the other emotion will be greater or less in the lover according as it is greater or less in the thing loved.*

Proof.—The images of things (as we showed in III. xix.) which postulate the existence of the object of love, help the mind's endeavour to conceive the said object. But pleasure postulates the existence of something feeling pleasure, so much the more in proportion as the emotion of pleasure is greater ; for it is (III. xi. note) a transition to a greater perfection ; therefore the image of pleasure in the object of love helps the mental endeavour of the lover ; that is, it affects the lover pleurably, and so much the more, in proportion as this emotion may have been greater in the object of love. This was our first point. Further, in so far as a thing is affected with pain, it is to that extent destroyed, the extent being in proportion to the amount of pain (III. xi. note) ; therefore (III. xix.) he who conceives, that the object of his love is affected painfully, will himself be affected painfully, in proportion as the said emotion is greater or less in the object of love. *Q.E.D.*

Prop. XXII. *If we conceive that anything pleurably affects some object of our love, we shall be affected with love towards that thing. Contrariwise, if we conceive that it affects an object of our love painfully, we shall be affected with hatred towards it.*

Proof.—He, who affects pleurably or painfully the object of our love, affects us also pleurably or painfully—that is, if we conceive the loved object as affected with the said pleasure or pain (III. xxi.). But this pleasure or pain is postulated to come to us accompanied by the idea of an external cause ; therefore (III. xiii. note), if we conceive that anyone affects an object of our love pleurably or painfully, we shall be affected with love or hatred towards him. *Q.E.D.*

Note.—Prop. xxi. explains to us the nature of Pity, which we may define as pain arising from another's hurt. What term we can use for pleasure arising from another's gain, I know not.

We will call the love towards him who confers a benefit on another, Approval ; and the hatred towards him who injures another, we will call Indignation. We must further remark, that we not only feel pity for a thing which we have loved (as shown in III. xxi.), but also for a thing which we have hitherto regarded without emotion, provided that we deem that it resembles ourselves (as I will show presently). Thus, we bestow approval on one who has benefited anything resembling ourselves, and, contrariwise, are indignant with him who has done it an injury.

Prop. XXIII. *He who conceives, that an object of his hatred is painfully affected, will feel pleasure. Contrariwise, if he thinks that the said object is pleurably affected, he will feel pain. Each of these emotions will be greater or less, according as its contrary is greater or less in the object of hatred.*

Proof.—In so far as an object of hatred is painfully affected, it is destroyed, to an extent proportioned to the strength of the pain (III. xi. note). Therefore, he (III. xx.) who conceives, that some object of his hatred is painfully affected, will feel pleasure, to an extent proportioned to the amount of pain he conceives in the object of his hatred. This was our first point. Again, pleasure postulates the existence of the pleurably affected thing (III. xi. note), in proportion as the pleasure is greater or less. If anyone imagines that an object of his hatred is pleurably affected, this conception (III. xiii.) will hinder his own endeavour to persist ; in other words (III. xi. note), he who hates will be painfully affected. *Q.E.D.*

Note.—This pleasure can scarcely be felt unalloyed, and without any mental conflict. For (as I am about to show in Prop. xxvii.), in so far as a man conceives that something similar to himself is affected by pain, he will himself be affected in like manner ; and he will have the contrary emotion in contrary circumstances. But here we are regarding

hatred only.

Prop. XXIV. *If we conceive that anyone pleasurable affects an object of our hate, we shall feel hatred towards him also. If we conceive that he painfully affects that said object, we shall feel love towards him.*

Proof.—This proposition is proved in the same way as III. xxii., which see.

Note.—These and similar emotions of hatred are attributable to envy, which, accordingly, is nothing else but hatred, in so far as it is regarded as disposing a man to rejoice in another's hurt, and to grieve at another's advantage.

Prop. XXV. *We endeavour to affirm, concerning ourselves, and concerning what we love, everything that we can conceive to affect pleasurable ourselves, or the loved object. Contrariwise, we endeavour to negative everything, which we conceive to affect painfully ourselves or the loved object.*

Proof.—That, which we conceive to affect an object of our love pleasurable or painfully, affects us also pleasurable or painfully (III. xxi.). But the mind (III. xii.) endeavours, as far as possible, to conceive those things which affect us pleasurable ; in other words (II. xvii. and Coroll.), it endeavours to regard them as present. And, contrariwise (III. xiii.), it endeavours to exclude the existence of such things as affect us painfully ; therefore, we endeavour to affirm concerning ourselves, and concerning the loved object, whatever we conceive to affect ourselves, or the love object pleasurable. *Q.E.D.*

Prop. XXVI. *We endeavour to affirm, concerning that which we hate, everything which we conceive to affect it painfully ; and, contrariwise, we endeavour to deny, concerning it, everything which we conceive to affect it pleasurable.*

Proof.—This proposition follows from III. xxiii., as the foregoing proposition followed from III. xxi.

Note.—Thus we see that it may readily happen, that a man may easily think too highly of himself, or a loved object, and, contrariwise, too meanly of a hated object. This feeling is called pride, in reference to the man who thinks too highly of himself, and is a species of madness, wherein a man dreams with his eyes open, thinking that he can accomplish all things that fall within the scope of his conception, and thereupon accounting them real, and exulting in them, so long as he is unable to conceive anything which excludes their existence, and determines his own power of action. Pride, therefore, is pleasure springing from a man thinking too highly of himself. Again, the pleasure which arises from a man thinking too highly of another is called over-esteem. Whereas the pleasure which arises from thinking too little of a man is called disdain.

Prop. XXVII. *By the very fact that we conceive a thing, which is like ourselves, and which we have not regarded with any emotion, to be affected with any emotion, we are ourselves affected with a like emotion (affectus).*

Proof.—The images of things are modifications of the human body, whereof the ideas represent external bodies as present to us (II. xvii.) ; in other words (II. x.), whereof the ideas involve the nature of our body, and, at the same time, the nature of the external bodies as present. If, therefore, the nature of the external body be similar to the nature of our body, then the idea which we form of the external body will involve a modification of our own body similar to the modification of the external body. Consequently, if we conceive anyone similar to ourselves as affected by any emotion, this conception will express a modification of our body similar to that emotion. Thus, from the fact of conceiving a thing like ourselves to be affected with any emotion, we are ourselves affected with a like emotion. If, however, we hate the said thing like ourselves, we shall, to that extent, be affected by a contrary, and not similar, emotion. *Q.E.D.*

Note I.—This imitation of emotions, when it is referred to pain, is called compassion (cf. III. xxii. note) ; when it is referred to desire, it is called emulation, which is nothing else but the desire of anything, engendered in us by the fact that we conceive that others have the like desire.

Corollary I.—If we conceive that anyone, whom we have hitherto regarded with no emotion, pleasurable affects something similar to ourselves, we shall be affected with love towards him. If, on the other hand, we conceive that he painfully affects the same, we shall be affected with hatred towards him.

Proof.—This is proved from the last proposition in the same manner as III. xxii. is proved from III. xxi.

Corollary II.—We cannot hate a thing which we pity, because its misery affects us painfully.

Proof.—If we could hate it for this reason, we should rejoice in its pain, which is contrary to the hypothesis.

Corollary III.—We seek to free from misery, as far as we can, a thing which we pity.

Proof.—That, which painfully affects the object of our pity, affects us also with similar pain (by the foregoing proposition) ; therefore, we shall endeavour to recall everything which removes its existence, or which destroys it (cf. III. xiii.) ; in other words (III. ix. note), we shall desire to destroy it, or we shall be determined for its destruction ; thus, we shall endeavour to free from misery a thing which we pity. *Q.E.D.*

Note II.—This will or appetite for doing good, which arises from pity of the thing whereon we would confer a benefit, is called benevolence, and is nothing else but desire arising from compassion. Concerning love or hate towards him who has done good or harm to something, which we conceive to be like ourselves, see III. xxii. note.

Prop. XXVIII. *We endeavour to bring about whatsoever we conceive to conduce to pleasure ; but we endeavour to remove or destroy whatsoever we conceive to be truly repugnant thereto, or to conduce to pain.*

Proof.—We endeavour, as far as possible, to conceive that which we imagine to conduce to pleasure (III. xii.) ; in other words (II. xvii.) we shall endeavour to conceive it as far as possible as present or actually existing. But the endeavour of the mind, or the mind's power of thought, is equal to, and simultaneous with, the endeavour of the body, or the body's power of action. (This is clear from II. vii. Coroll. and II. xi. Coroll.). Therefore we make an absolute endeavour for its existence, in other words (which by III. ix. note, come to the same thing) we desire and strive for it ; this was our first point. Again, if we conceive that something, which we believed to be the cause of pain, that is (III. xiii. note), which we hate, is destroyed, we shall rejoice (III. xx.). We shall, therefore (by the first part of this proof), endeavour to destroy the same, or (III. xiii.) to remove it from us, so that we may not regard it as present ; this was our second point. Wherefore whatsoever conduces to pleasure, &c. *Q.E.D.*

Prop. XXIX. *We shall also endeavour to do whatsoever we conceive men^[6] to regard with pleasure, and contrariwise we shall shrink from doing that which we conceive men to shrink from.*

Proof.—From the fact of imagining, that men love or hate anything, we shall love or hate the same thing (III. xxvii.). That is (III. xiii. note), from this mere fact we shall feel pleasure or pain at the thing's presence. And so we shall endeavour to do whatsoever we conceive men to love or regard with pleasure, etc. *Q.E.D.*

Note.—This endeavour to do a thing or leave it undone, solely in order to please men, we call ambition, especially when we so eagerly endeavour to please the vulgar, that we do or omit certain things to our own or another's hurt : in other cases it is generally called kindness. Furthermore I give the name of praise to the pleasure, with which we conceive the action of another, whereby he has endeavoured to please us ; but of blame to the pain wherewith we feel aversion to his action.

Prop. XXX. *If anyone has done something which he conceives as affecting other men pleasurably, he will be affected by pleasure, accompanied by the idea of himself as cause ; in other words, he will regard himself with pleasure. On the other hand, if he has done anything which he conceives as affecting others painfully, he will regard himself with pain.*

Proof.—He who conceives, that he affects others with pleasure or pain, will, by that very fact, himself be affected with pleasure or pain (III. xxvii.), but, as a man (II. xix. and xxiii.) is conscious of himself through the modifications whereby he is determined to action, it follows that he who conceives, that he affects others pleasurably, will be affected with pleasure accompanied by the idea of himself as cause ; in other words, he will regard himself with pleasure. And so mutatis mutandis in the case of pain. *Q.E.D.*

Note.—As love (III. xiii.) is pleasure accompanied by the idea of an external cause, and hatred is pain accompanied by the idea of an external cause ; the pleasure and pain in question will be a species of love and hatred. But, as the terms love and hatred are used in reference to external objects, we will employ other names for the emotions now under discussion : pleasure accompanied by the idea of an external cause^[7] we will style Honour, and the emotion contrary thereto we will style Shame : I mean in such cases as where pleasure or pain arises from a man's belief, that

he is being praised or blamed : otherwise pleasure accompanied by the idea of an external cause^[8] is called self-complacency, and its contrary pain is called repentance. Again, as it may happen (II. xvii. Coroll.) that the pleasure, wherewith a man conceives that he affects others, may exist solely in his own imagination, and as (III. xxv.) everyone endeavours to conceive concerning himself that which he conceives will affect him with pleasure, it may easily come to pass that a vain man may be proud and may imagine that he is pleasing to all, when in reality he may be an annoyance to all.

Prop. XXXI. *If we conceive that anyone loves, desires, or hates anything which we ourselves love, desire, or hate, we shall thereupon regard the thing in question with more steadfast love, &c. On the contrary, if we think that anyone shrinks from something that we love, we shall undergo vacillations of soul.*

Proof.—From the mere fact of conceiving that anyone loves anything we shall ourselves love that thing (III. xxvii.) : but we are assumed to love it already ; there is, therefore, a new cause of love, whereby our former emotion is fostered ; hence we shall thereupon love it more steadfastly. Again, from the mere fact of conceiving that anyone shrinks from anything, we shall ourselves shrink from that thing (III. xxvii.). If we assume that we at the same time love it, we shall then simultaneously love it and shrink from it ; in other words, we shall be subject to vacillation (III. xvii. note). *Q.E.D.*

Corollary.—From the foregoing, and also from III. xxviii. it follows that everyone endeavours, as far as possible, to cause others to love what he himself loves, and to hate what he himself hates : as the poet says : "As lovers let us share every hope and every fear : ironhearted were he who should love what the other leaves."^[9]

Note.—This endeavour to bring it about, that our own likes and dislikes should meet with universal approval, is really ambition (see III. xxix. note) ; wherefore we see that everyone by nature desires (*appetere*), that the rest of mankind should live according to his own individual disposition : when such a desire is equally present in all, everyone stands in everyone else's way, and in wishing to be loved or praised by all, all become mutually hateful.

Prop. XXXII. *If we conceive that anyone takes delight in something, which only one person can possess, we shall endeavour to bring it about that the man in question shall not gain possession thereof.*

Proof.—From the mere fact of our conceiving that another person takes delight in a thing (III. xxvii. and Coroll.) we shall ourselves love that thing and desire to take delight therein. But we assumed that the pleasure in question would be prevented by another's delight in its object ; we shall, therefore, endeavour to prevent his possession thereof (III. xxviii.). *Q.E.D.*

Note.—We thus see that man's nature is generally so constituted, that he takes pity on those who fare ill, and envies those who fare well with an amount of hatred proportioned to his own love for the goods in their possession. Further, we see that from the same property of human nature, whence it follows that men are merciful, it follows also that they are envious and ambitious. Lastly, if we make appeal to Experience, we shall find that she entirely confirms what we have said ; more especially if we turn our attention to the first years of our life. We find that children, whose body is continually, as it were, in equilibrium, laugh or cry simply because they see others laughing or crying ; moreover, they desire forthwith to imitate whatever they see others doing, and to possess themselves of whatever they conceive as delighting others : inasmuch as the images of things are, as we have said, modifications of the human body, or modes wherein the human body is affected and disposed by external causes to act in this or that manner.

Prop. XXXIII. *When we love a thing similar to ourselves we endeavour, as far as we can, to bring about that it should love us in return.*

Proof.—That which we love we endeavour, as far as we can, to conceive in preference to anything else (III. xii.). If the thing be similar to ourselves, we shall endeavour to affect it pleasurably in preference to anything else (III. xxix.). In other words, we shall endeavour, as far as we can, to bring it about, that the thing should be affected with pleasure accompanied by the idea of ourselves, that is (III. xiii. note), that it should love us in return. *Q.E.D.*

Prop. XXXIV. *The greater the emotion with which we conceive a loved object to be affected towards us, the greater will be our complacency.*

Proof.—We endeavour (III. xxxiii.), as far as we can, to bring about, that what we love should love us in return : in other words, that what we love should be affected with pleasure accompanied by the idea of ourself as cause. Therefore, in proportion as the loved object is more pleasurably affected because of us, our endeavour will be assisted.—that is (III. xi. and note) the greater will be our pleasure. But when we take pleasure in the fact, that we pleasurably affect something similar to ourselves, we regard ourselves with pleasure (III. xxx.) ; therefore the greater the emotion with which we conceive a loved object to be affected, &c. *Q.E.D.*

Prop. XXXV. *If anyone conceives, that an object of his love joins itself to another with closer bonds of friendship than he himself has attained to, he will be affected with hatred towards the loved object and with envy towards his rival.*

Proof.—In proportion as a man thinks, that a loved object is well affected towards him, will be the strength of his self-approval (by the last Prop.), that is (III. xxx. note), of his pleasure ; he will, therefore (III. xxviii.), endeavour, as far as he can, to imagine the loved object as most closely bound to him : this endeavour or desire will be increased, if he thinks that someone else has a similar desire (III. xxxi.). But this endeavour or desire is assumed to be checked by the image of the loved object in conjunction with the image of him whom the loved object has joined to itself ; therefore (III. xi. note) he will for that reason be affected with pain, accompanied by the idea of the loved object as a cause in conjunction with the image of his rival ; that is, he will be (III. xiii.) affected with hatred towards the loved object and also towards his rival (III. xv. Coroll.), which latter he will envy as enjoying the beloved object. *Q.E.D.*

Note.—This hatred towards an object of love joined with envy is called Jealousy, which accordingly is nothing else but a wavering of the disposition arising from combined love and hatred, accompanied by the idea of some rival who is envied. Further, this hatred towards the object of love will be greater, in proportion to the pleasure which the jealous man had been wont to derive from the reciprocated love of the said object ; and also in proportion to the feelings he had previously entertained towards his rival. If he had hated him, he will forthwith hate the object of his love, because he conceives it is pleasurably affected by one whom he himself hates : and also because he is compelled to associate the image of his loved one with the image of him whom he hates. This condition generally comes into play in the case of love for a woman : for he who thinks, that a woman whom he loves prostitutes herself to another, will feel pain, not only because his own desire is restrained, but also because, being compelled to associate the image of her he loves with the parts of shame and the excreta of another, he therefore shrinks from her.

We must add, that a jealous man is not greeted by his beloved with the same joyful countenance as before, and this also gives him pain as a lover, as I will now show.

Prop. XXXVI. *He who remembers a thing, in which he has once taken delight, desires to possess it under the same circumstances as when he first took delight therein.*

Proof.—Everything, which a man has seen in conjunction with the object of his love, will be to him accidentally a cause of pleasure (III. xv.) ; he will, therefore, desire to possess it, in conjunction with that wherein he has taken delight ; in other words, he will desire to possess the object of his love under the same circumstances as when he first took delight therein. *Q.E.D.*

Corollary.—A lover will, therefore, feel pain if one of the aforesaid attendant circumstances be missing.

Proof.—For, in so far as he finds some circumstance to be missing, he conceives something which excludes its existence. As he is assumed to be desirous for love's sake of that thing or circumstance (by the last Prop.), he will, in so far as he conceives it to be missing, feel pain (III. xix.). *Q.E.D.*

Note.—This pain, in so far as it has reference to the absence of the object of love, is called Regret.

Prop. XXXVII. *Desire arising through pain or pleasure, hatred or love, is greater in proportion as the emotion is greater.*

Proof.—Pain diminishes or constrains a man's power of activity (III. xi. note), in other words (III. vii.), diminishes or constrains the effort, wherewith he endeavours to persist in his own being ; therefore (III. v.) it is contrary to the said endeavour : thus all the endeavours of a man affected by pain are directed to removing that pain. But (by the definition of pain), in proportion as the pain is greater, so also is it necessarily opposed to a greater part of man's power of activity ; therefore the greater the pain, the greater the power of activity employed to remove it ; that is, the greater will be the desire or appetite in endeavouring to remove it. Again, since pleasure (III. xi. note) increases or aids a man's power of activity, it may easily be shown in like manner, that a man affected by pleasure has no desire further than to preserve it, and his desire will be in proportion to the magnitude of the pleasure.

Lastly, since hatred and love are themselves emotions of pain and pleasure, it follows in like manner that the endeavour, appetite, or desire, which arises through hatred or love, will be greater in proportion to the hatred or love.

Q.E.D.

Prop. XXXVIII. *If a man has begun to hate an object of his love, so that love is thoroughly destroyed, he will, causes being equal, regard it with more hatred than if he had never loved it, and his hatred will be in proportion to the strength of his former love.*

Proof.—If a man begins to hate that which he had loved, more of his appetites are put under restraint than if he had never loved it. For love is a pleasure (III. xiii. note) which a man endeavours as far as he can to render permanent (III. xxviii.) ; he does so by regarding the object of his love as present, and by affecting it as far as he can pleasurably ; this endeavour is greater in proportion as the love is greater, and so also is the endeavour to bring about that the beloved should return his affection (III. xxxiii.). Now these endeavours are constrained by hatred towards the object of love (III. xiii. Coroll. and III. xxiii.) ; wherefore the lover (III. xi. note) will for this cause also be affected with pain, the more so in proportion as his love has been greater ; that is, in addition to the pain caused by hatred, there is a pain caused by the fact that he has loved the object ; wherefore the lover will regard the beloved with greater pain, or in other words, will hate it more than if he had never loved it, and with the more intensity in proportion as his former love was greater. *Q.E.D.*

Prop. XXXIX. *He who hates anyone will endeavour to do him an injury, unless he fears that a greater injury will thereby accrue to himself ; on the other hand, he who loves anyone will, by the same law, seek to benefit him.*

Proof.—To hate a man is (III. xiii. note) to conceive him as a cause of pain ; therefore he who hates a man will endeavour to remove or destroy him. But if anything more painful, or, in other words, a greater evil, should accrue to the hater thereby—and if the hater thinks he can avoid such evil by not carrying out the injury, which he planned against the object of his hate—he will desire to abstain from inflicting that injury (III. xxviii.), and the strength of his endeavour (III. xxxvii.) will be greater than his former endeavour to do injury, and will therefore prevail over it, as we asserted. The second part of this proof proceeds in the same manner. Wherefore he who hates another, etc. *Q.E.D.*

Note.—By good I here mean every kind of pleasure, and all that conduces thereto, especially that which satisfies our longings, whatsoever they may be. By evil, I mean every kind of pain, especially that which frustrates our longings. For I have shown (III. ix. note) that we in no case desire a thing because we deem it good, but, contrariwise, we deem a thing good because we desire it : consequently we deem evil that which we shrink from ; everyone, therefore, according to his particular emotions, judges or estimates what is good, what is bad, what is better, what is worse, lastly, what is best, and what is worst. Thus a miser thinks that abundance of money is the best, and want of money the worst ; an ambitious man desires nothing so much as glory, and fears nothing so much as shame. To an envious man nothing is more delightful than another's misfortune, and nothing more painful than another's success. So every man, according to his emotions, judges a thing to be good or bad, useful or useless. The emotion, which induces a man to turn from that which he wishes, or to wish for that which he turns from, is called timidity, which may accordingly be defined as the fear whereby a man is induced to avoid an evil which he regards as future by encountering a lesser evil (III. xxviii.). But if the evil which he fears be shame, timidity becomes bashfulness. Lastly, if the desire to avoid a future evil be checked by the fear of another evil, so that the man knows not which to choose,

fear becomes consternation, especially if both the evils feared be very great.

Prop. XL. *He, who conceives himself to be hated by another, and believes that he has given him no cause for hatred, will hate that other in return.*

Proof.—He who conceives another as affected with hatred, will thereupon be affected himself with hatred (III. xxvii.), that is, with pain, accompanied by the idea of an external cause. But, by the hypothesis, he conceives no cause for this pain except him who is his enemy ; therefore, from conceiving that he is hated by some one, he will be affected with pain, accompanied by the idea of his enemy ; in other words, he will hate his enemy in return. *Q.E.D.*

Note.—He who thinks that he has given just cause for hatred will (III. xxx. and note) be affected with shame ; but this case (III. xxv.) rarely happens. This reciprocation of hatred may also arise from the hatred, which follows an endeavour to injure the object of our hate (III. xxxix.). He therefore who conceives that he is hated by another will conceive his enemy as the cause of some evil or pain ; thus he will be affected with pain or fear, accompanied by the idea of his enemy as cause ; in other words, he will be affected with hatred towards his enemy, as I said above.

Corollary I.—He who conceives, that one whom he loves hates him, will be a prey to conflicting hatred and love. For, in so far as he conceives that he is an object of hatred, he is determined to hate his enemy in return. But, by the hypothesis, he nevertheless loves him : wherefore he will be a prey to conflicting hatred and love.

Corollary II.—If a man conceives that one, whom he has hitherto regarded without emotion, has done him any injury from motives of hatred, he will forthwith seek to repay the injury in kind.

Proof.—He who conceives, that another hates him, will (by the last proposition) hate his enemy in return, and (III. xxvi.) will endeavour to recall everything which can affect him painfully ; he will moreover endeavour to do him an injury (III. xxxix.). Now the first thing of this sort which he conceives is the injury done to himself ; he will, therefore, forthwith endeavour to repay it in kind. *Q.E.D.*

Note.—The endeavour to injure one whom we hate is called Anger ; the endeavour to repay in kind injury done to ourselves is called Revenge.

Prop. XLI. *If anyone conceives that he is loved by another, and believes that he has given no cause for such love, he will love that other in return.* (Cf. III. xv. Coroll., and III. xvi.)

Proof.—This proposition is proved in the same way as the preceding one. See also the note appended thereto.

Note.—If he believes that he has given just cause for the love, he will take pride therein (III. xxx. and note) ; this is what most often happens (III. xxv.), and we said that its contrary took place whenever a man conceives himself to be hated by another. (See note to preceding proposition.) This reciprocal love, and consequently the desire of benefiting him who loves us (III. xxxix.), and who endeavours to benefit us, is called gratitude or thankfulness. It thus appears that men are much more prone to take vengeance than to return benefits.

Corollary.—He who imagines that he is loved by one whom he hates, will be a prey to conflicting hatred and love. This is proved in the same way as the first corollary of the preceding proposition.

Note.—If hatred be the prevailing emotion, he will endeavour to injure him who loves him ; this emotion is called cruelty, especially if the victim be believed to have given no ordinary cause for hatred.

Prop. XLII. *He who has conferred a benefit on anyone from motives of love or honour will feel pain, if he sees that the benefit is received without gratitude.*

Proof.—When a man loves something similar to himself, he endeavours, as far as he can, to bring it about that he should be loved thereby in return (III. xxxiii.). Therefore he who has conferred a benefit confers it in obedience to the desire, which he feels of being loved in return ; that is (III. xxxiv.) from the hope of honour or (III. xxx. note) pleasure ; hence he will endeavour, as far as he can, to conceive this cause of honour, or to regard it as actually existing. But, by the hypothesis, he conceives something else, which excludes the existence of the said cause of honour : wherefore he will thereat feel pain (III. xix.). *Q.E.D.*

Prop. XLIII. *Hatred is increased by being reciprocated, and can on the other hand be destroyed by love.*

Proof.—He who conceives, that an object of his hatred hates him in return, will thereupon feel a new hatred, while the former hatred (by hypothesis) still remains (III. xl.). But if, on the other hand, he conceives that the object of hate loves him, he will to this extent (III. xxxviii.) regard himself with pleasure, and (III. xxix.) will endeavour to please the cause of his emotion. In other words, he will endeavour not to hate him (III. xli.), and not to affect him painfully ; this endeavour (III. xxxvii.) will be greater or less in proportion to the emotion from which it arises. Therefore, if it be greater than that which arises from hatred, and through which the man endeavours to affect painfully the thing which he hates, it will get the better of it and banish the hatred from his mind. *Q.E.D.*

Prop. XLIV. *Hatred which is completely vanquished by love passes into love : and love is thereupon greater than if hatred had not preceded it.*

Proof.—The proof proceeds in the same way as Prop. xxxviii. of this Part : for he who begins to love a thing, which he was wont to hate or regard with pain, from the very fact of loving feels pleasure. To this pleasure involved in love is added the pleasure arising from aid given to the endeavour to remove the pain involved in hatred (III. xxxvii.), accompanied by the idea of the former object of hatred as cause.

Note.—Though this be so, no one will endeavour to hate anything, or to be affected with pain, for the sake of enjoying this greater pleasure ; that is, no one will desire that he should be injured, in the hope of recovering from the injury, nor long to be ill for the sake of getting well. For everyone will always endeavour to persist in his being, and to ward off pain as far as he can. If the contrary is conceivable, namely, that a man should desire to hate someone, in order that he might love him the more thereafter, he will always desire to hate him. For the strength of love is in proportion to the strength of the hatred, wherefore the man would desire, that the hatred be continually increased more and more, and, for a similar reason, he would desire to become more and more ill, in order that he might take a greater pleasure in being restored to health : in such a case he would always endeavour to be ill, which (III. vi.) is absurd.

Prop. XLV. *If a man conceives, that anyone similar to himself hates anything also similar to himself, which he loves, he will hate that person.*

Proof.—The beloved object feels reciprocal hatred towards him who hates it (III. xl.) ; therefore the lover, in conceiving that anyone hates the beloved object, conceives the beloved thing as affected by hatred, in other words (III. xiii.), by pain ; consequently he is himself affected by pain accompanied by the idea of the hater of the beloved thing as cause ; that is, he will hate him who hates anything which he himself loves (III. xiii. note). *Q.E.D.*

Prop. XLVI. *If a man has been affected pleasurably or painfully by anyone, of a class or nation different from his own, and if the pleasure or pain has been accompanied by the idea of the said stranger as cause, under the general category of the class or nation : the man will feel love or hatred, not only to the individual stranger, but also to the whole class or nation whereto he belongs.*

Proof.—This is evident from III. xvi.

Prop. XLVII. *Joy arising from the fact, that anything we hate is destroyed, or suffers other injury, is never unaccompanied by a certain pain in us.*

Proof.—This is evident from III. xxvii. For in so far as we conceive a thing similar to ourselves to be affected with pain, we ourselves feel pain.

Note.—This proposition can also be proved from the Corollary to II. xvii. Whenever we remember anything, even if it does not actually exist, we regard it only as present, and the body is affected in the same manner ; wherefore, in so far as the remembrance of the thing is strong, a man is determined to regard it with pain ; this determination, while the image of the thing in question lasts, is indeed checked by the remembrance of other things excluding the existence of the aforesaid thing, but is not destroyed : hence, a man only feels pleasure in so far as the said determination is checked : for this reason the joy arising from the injury done to what we hate is repeated, every time we remember that object of hatred. For, as we have said, when the image of the thing in question, is aroused, inasmuch as it involves the thing's existence, it determines the man to regard the thing with the same pain as he was

wont to do, when it actually did exist. However, since he has joined to the image of the thing other images, which exclude its existence, this determination to pain is forthwith checked, and the man rejoices afresh as often as the repetition takes place. This is the cause of men's pleasure in recalling past evils, and delight in narrating dangers from which they have escaped. For when men conceive a danger, they conceive it as still future, and are determined to fear it ; this determination is checked afresh by the idea of freedom, which became associated with the idea of the danger when they escaped therefrom : this renders them secure afresh : therefore they rejoice afresh.

Prop. XLVIII. *Love or hatred towards, for instance, Peter is destroyed, if the pleasure involved in the former, or the pain involved in the latter emotion, be associated with the idea of another cause : and will be diminished in proportion as we conceive Peter not to have been the sole cause of either emotion.*

Proof.—This Prop. is evident from the mere definition of love and hatred (III. xiii. note). For pleasure is called love towards Peter, and pain is called hatred towards Peter, simply in so far as Peter is regarded as the cause of one emotion or the other. When this condition of causality is either wholly or partly removed, the emotion towards Peter also wholly or in part vanishes. *Q.E.D.*

Prop. XLIX. *Love or hatred towards a thing, which we conceive to be free, must, other conditions being similar, be greater than if it were felt towards a thing acting by necessity.*

Proof.—A thing which we conceive as free must (I. Def. vii.) be perceived through itself without anything else. If, therefore, we conceive it as the cause of pleasure or pain, we shall therefore (III. xiii. note) love it or hate it, and shall do so with the utmost love or hatred that can arise from the given emotion. But if the thing which causes the emotion be conceived as acting by necessity, we shall then (by the same Def. vii. Part I.) conceive it not as the sole cause, but as one of the causes of the emotion, and therefore our love or hatred towards it will be less. *Q.E.D.*

Note.—Hence it follows, that men, thinking themselves to be free, feel more love or hatred towards one another than towards anything else : to this consideration we must add the imitation of emotions treated of in III. xxvii., xxxiv., xl. and xliii.

Prop. L. *Anything whatever can be, accidentally, a cause of hope or fear.*

Proof.—This proposition is proved in the same way as III. xv., which see, together with the note to III. xviii.

Note.—Things which are accidentally the causes of hope or fear are called good or evil omens. Now, in so far as such omens are the cause of hope or fear, they are (by the definitions of hope and fear given in III. xviii. note) the causes also of pleasure and pain ; consequently we, to this extent, regard them with love or hatred, and endeavour either to invoke them as means towards that which we hope for, or to remove them as obstacles, or causes of that which we fear. It follows, further, from III. xxv., that we are naturally so constituted as to believe readily in that which we hope for, and with difficulty in that which we fear ; moreover, we are apt to estimate such objects above or below their true value. Hence there have arisen superstitions, whereby men are everywhere assailed. However, I do not think it worth while to point out here the vacillations springing from hope and fear ; it follows from the definition of these emotions, that there can be no hope without fear, and no fear without hope, as I will duly explain in the proper place. Further, in so far as we hope for or fear anything, we regard it with love or hatred ; thus everyone can apply by himself to hope and fear what we have said concerning love and hatred.

Prop. LI. *Different men may be differently affected by the same object, and the same man may be differently affected at different times by the same object.*

Proof.—The human body is affected by external bodies in a variety of ways (II. Post. iii.). Two men may therefore be differently affected at the same time, and therefore (by Ax. i. after Lemma iii. after II. xiii.) may be differently affected by one and the same object. Further (by the same Post.) the human body can be affected sometimes in one way, sometimes in another ; consequently (by the same Axiom) it may be differently affected at different times by one and the same object. *Q.E.D.*

Note.—We thus see that it is possible, that what one man loves another may hate, and that what one man fears another may not fear ; or, again, that one and the same man may love what he once hated, or may be bold where he

once was timid, and so on. Again, as everyone judges according to his emotions what is good, what bad, what better, and what worse (III. xxxix. note), it follows that men's judgments may vary no less than their emotions^[10], hence when we compare some with others, we distinguish them solely by the diversity of their emotions, and style some intrepid, others timid, others by some other epithet. For instance, I shall call a man intrepid, if he despises an evil which I am accustomed to fear ; if I further take into consideration, that, in his desire to injure his enemies and to benefit those whom he loves, he is not restrained by the fear of an evil which is sufficient to restrain me, I shall call him daring. Again, a man will appear timid to me, if he fears an evil which I am accustomed to despise ; and if I further take into consideration that his desire is restrained by the fear of an evil, which is not sufficient to restrain me, I shall say that he is cowardly ; and in like manner will everyone pass judgment.

Lastly, from this inconstancy in the nature of human judgment, inasmuch as a man often judges things solely by his emotions, and inasmuch as the things which he believes cause pleasure or pain, and therefore endeavours to promote or prevent, are often purely imaginary, not to speak of the uncertainty of things alluded to in III. xxviii. ; we may readily conceive that a man may be at one time affected with pleasure, and at another with pain, accompanied by the idea of himself as cause. Thus we can easily understand what are Repentance and Self-complacency. Repentance is pain, accompanied by the idea of one's self as cause ; Self-complacency is pleasure, accompanied by the idea of one's self as cause, and these emotions are most intense because men believe themselves to be free (III. xlix.).

Prop. LII. *An object which we have formerly seen in conjunction with others, and which we do not conceive to have any property that is not common to many, will not be regarded by us for so long, as an object which we conceive to have some property peculiar to itself.*

Proof.—As soon as we conceive an object which we have seen in conjunction with others, we at once remember those others (II. xviii. and note), and thus we pass forthwith from the contemplation of one object to the contemplation of another object. And this is the case with the object, which we conceive to have no property that is not common to many. For we thereupon assume that we are regarding therein nothing, which we have not before seen in conjunction with other objects. But when we suppose that we conceive an object something special, which we have never seen before, we must needs say that the mind, while regarding that object, has in itself nothing which it can fall to regarding instead thereof ; therefore it is determined to the contemplation of that object only. Therefore an object, &c. *Q.E.D.*

Note.—This mental modification, or imagination of a particular thing, in so far as it is alone in the mind, is called Wonder ; but if it be excited by an object of fear, it is called Consternation, because wonder at an evil keeps a man so engrossed in the simple contemplation thereof, that he has no power to think of anything else whereby he might avoid the evil. If, however, the object of wonder be a man's prudence, industry, or anything of that sort, inasmuch as the said man, is thereby regarded as far surpassing ourselves, wonder is called Veneration ; otherwise, if a man's anger, envy, &c., be what we wonder at, the emotion is called Horror. Again, if it be the prudence, industry, or what not, of a man we love, that we wonder at, our love will on this account be the greater (III. xii.), and when joined to wonder or veneration is called Devotion. We may in like manner conceive hatred, hope, confidence, and the other emotions, as associated with wonder ; and we should thus be able to deduce more emotions than those which have obtained names in ordinary speech. Whence it is evident, that the names of the emotions have been applied in accordance rather with their ordinary manifestations than with an accurate knowledge of their nature.

To wonder is opposed Contempt, which generally arises from the fact that, because we see someone wondering at, loving, or fearing something, or because something, at first sight, appears to be like things, which we ourselves wonder at, love, fear, &c., we are, in consequence (III. xv. Coroll. and III. xxvii.), determined to wonder at, love, or fear that thing. But if from the presence, or more accurate contemplation of the said thing, we are compelled to deny concerning it all that can be the cause of wonder, love, fear, &c., the mind then, by the presence of the thing, remains determined to think rather of those qualities which are not in it, than of those which are in it ; whereas, on the other hand, the presence of the object would cause it more particularly to regard that which is therein. As devotion springs from wonder at a thing which we love, so does Derision spring from contempt of a thing which we hate or fear, and

Scorn from contempt of folly, as veneration from wonder at prudence. Lastly, we can conceive the emotions of love, hope, honour, &c., in association with contempt, and can thence deduce other emotions, which are not distinguished one from another by any recognized name.

Prop. LIII. *When the mind regards itself and its own power of activity, it feels pleasure : and that pleasure is greater in proportion to the distinctness wherewith it conceives itself and its own power of activity.*

Proof.—A man does not know himself except through the modifications of his body, and the ideas thereof (II. xix. and xxiii.). When, therefore, the mind is able to contemplate itself, it is thereby assumed to pass to a greater perfection, or (III. xi. note) to feel pleasure ; and the pleasure will be greater in proportion to the distinctness, wherewith it is able to conceive itself and its own power of activity. *Q.E.D.*

Corollary.—This pleasure is fostered more and more, in proportion as a man conceives himself to be praised by others. For the more he conceives himself as praised by others, the more he will imagine them to be affected with pleasure, accompanied by the idea of himself (III. xxix. note) ; thus he is (III. xxvii.) himself affected with greater pleasure, accompanied by the idea of himself. *Q.E.D.*

Prop. LIV. *The mind endeavours to conceive only such things as assert its power of activity.*

Proof.—The endeavour or power of the mind is the actual essence thereof (III. vii.) ; but the essence of the mind obviously only affirms that which the mind is and can do ; not that which it neither is nor can do ; therefore the mind endeavours to conceive only such things as assert or affirm its power of activity. *Q.E.D.*

Prop. LV. *When the mind contemplates its own weakness, it feels pain thereat.*

Proof.—The essence of the mind only affirms that which the mind is, or can do ; in other words, it is the mind's nature to conceive only such things as assert its power of activity (last Prop.). Thus, when we say that the mind contemplates its own weakness, we are merely saying that while the mind is attempting to conceive something which asserts its power of activity, it is checked in its endeavour - in other words (III. xi. note), it feels pain. *Q.E.D.*

Corollary.—This pain is more and more fostered, if a man conceives that he is blamed by others ; this may be proved in the same way as the corollary to III. liii.

Note.—This pain, accompanied by the idea of our own weakness, is called humility ; the pleasure, which springs from the contemplation of ourselves, is called self-love or self-complacency. And inasmuch as this feeling is renewed as often as a man contemplates his own virtues, or his own power of activity, it follows that everyone is fond of narrating his own exploits, and displaying the force both of his body and mind, and also that, for this reason, men are troublesome to one another. Again, it follows that men are naturally envious (III. xxiv. note, and III. xxxii. note), rejoicing in the shortcomings of their equals, and feeling pain at their virtues. For whenever a man conceives his own actions, he is affected with pleasure (III. liii.), in proportion as his actions display more perfection, and he conceives them more distinctly—that is (II. xl. note), in proportion as he can distinguish them from others, and regard them as something special. Therefore, a man will take most pleasure in contemplating himself, when he contemplates some quality which he denies to others. But, if that which he affirms of himself be attributable to the idea of man or animals in general, he will not be so greatly pleased : he will, on the contrary, feel pain, if he conceives that his own actions fall short when compared with those of others. This pain (III. xxviii.) he will endeavour to remove, by putting a wrong construction on the actions of his equals, or by, as far as he can, embellishing his own.

It is thus apparent that men are naturally prone to hatred and envy, which latter is fostered by their education. For parents are accustomed to incite their children to virtue solely by the spur of honour and envy. But, perhaps, some will scruple to assent to what I have said, because we not seldom admire men's virtues, and venerate their possessors. In order to remove such doubts, I append the following corollary.

Corollary.—No one envies the virtue of anyone who is not his equal.

Proof.—Envy is a species of hatred (III. xxiv. note) or (III. xiii. note) pain, that is (III. xi. note), a modification whereby a man's power of activity, or endeavour towards activity, is checked. But a man does not endeavour or

desire to do anything, which cannot follow from his nature as it is given ; therefore a man will not desire any power of activity or virtue (which is the same thing) to be attributed to him, that is appropriate to another's nature and foreign to his own ; hence his desire cannot be checked, nor he himself pained by the contemplation of virtue in some one unlike himself, consequently he cannot envy such an one. But he can envy his equal, who is assumed to have the same nature as himself. *Q.E.D.*

Note.—When, therefore, as we said in the note to III. lii., we venerate a man, through wonder at his prudence, fortitude, &c., we do so, because we conceive those qualities to be peculiar to him, and not as common to our nature ; we, therefore, no more envy their possessor, than we envy trees for being tall, or lions for being courageous.

Prop. LVI. *There are as many kinds of pleasure, of pain, of desire, and of every emotion compounded of these, such as vacillations of spirit, or derived from these, such as love, hatred, hope, fear, &c., as there are kinds of objects whereby we are affected.*

Proof.—Pleasure and pain, and consequently the emotions compounded thereof, or derived therefrom, are passions, or passive states (III. xi. note) ; now we are necessarily passive (III. i.), in so far as we have inadequate ideas ; and only in so far as we have such ideas are we passive (III. iii.) ; that is, we are only necessarily passive (II. xl. note), in so far as we conceive, or (II. xvii. and note) in so far as we are affected by an emotion, which involves the nature of our own body, and the nature of an external body. Wherefore the nature of every passive state must necessarily be so explained, that the nature of the object whereby we are affected be expressed. Namely, the pleasure, which arises from, say, the object A, involves the nature of that object A, and the pleasure, which arises from the object B, involves the nature of the object B ; wherefore these two pleasurable emotions are by nature different, inasmuch as the causes whence they arise are by nature different. So again the emotion of pain, which arises from one object, is by nature different from the pain arising from another object, and, similarly, in the case of love, hatred, hope, fear, vacillation, &c.

Thus, there are necessarily as many kinds of pleasure, pain, love, hatred, &c., as there are kinds of objects whereby we are affected. Now desire is each man's essence or nature, in so far as it is conceived as determined to a particular action by any given modification of itself (III. ix. note) ; therefore, according as a man is affected through external causes by this or that kind of pleasure, pain, love, hatred, &c., in other words, according as his nature is disposed in this or that manner, so will his desire be of one kind or another, and the nature of one desire must necessarily differ from the nature of another desire, as widely as the emotions differ, wherefrom each desire arose. Thus there are as many kinds of desire, as there are kinds of pleasure, pain, love, &c., consequently (by what has been shown) there are as many kinds of desire, as there are kinds of objects whereby we are affected. *Q.E.D.*

Note.—Among the kinds of emotions, which, by the last proposition, must be very numerous, the chief are luxury, drunkenness, lust, avarice, and ambition, being merely species of love or desire, displaying the nature of those emotions in a manner varying according to the object, with which they are concerned. For by luxury, drunkenness, lust, avarice, ambition, &c., we simply mean the immoderate love of feasting, drinking, venery, riches, and fame. Furthermore, these emotions, in so far as we distinguish them from others merely by the objects wherewith they are concerned, have no contraries. For temperance, sobriety, and chastity, which we are wont to oppose to luxury, drunkenness, and lust, are not emotions or passive states, but indicate a power of the mind which moderates the last-named emotions. However, I cannot here explain the remaining kinds of emotions (seeing that they are as numerous as the kinds of objects), nor, if I could, would it be necessary. It is sufficient for our purpose, namely, to determine the strength of the emotions, and the mind's power over them, to have a general definition of each emotion. It is sufficient, I repeat, to understand the general properties of the emotions and the mind, to enable us to determine the quality and extent of the mind's power in moderating and checking the emotions. Thus, though there is a great difference between various emotions of love, hatred, or desire, for instance between love felt towards children, and love felt towards a wife, there is no need for us to take cognizance of such differences, or to track out further the nature and origin of the emotions.

Prop. LVI. *Any emotion of a given individual differs from the emotion of another individual, only in so far as the essence of the one individual differs from the essence of the other.*

Proof.—This proposition is evident from Ax. i. (which see after Lemma iii. Prop. xiii., Part II.). Nevertheless, we will prove it from the nature of the three primary emotions.

All emotions are attributable to desire, pleasure, or pain, as their definitions above given show. But desire is each man's nature or essence (III. ix. note) ; therefore desire in one individual differs from desire in another individual, only in so far as the nature or essence of the one differs from the nature or essence of the other. Again, pleasure and pain are passive states or passions, whereby every man's power or endeavour to persist in his being is increased or diminished, helped or hindered (III. xi. and note). But by the endeavour to persist in its being, in so far as it is attributable to mind and body in conjunction, we mean appetite and desire (III. ix. note) ; therefore pleasure and pain are identical with desire or appetite, in so far as by external causes they are increased or diminished, helped or hindered, in other words, they are every man's nature ; wherefore the pleasure and pain felt by one man differ from the pleasure and pain felt by another man, only in so far as the nature or essence of the one man differs from the essence of the other ; consequently, any emotion of one individual only differs, &c. *Q.E.D.*

Note.—Hence it follows, that the emotions of the animals which are called irrational (for after learning the origin of mind we cannot doubt that brutes feel) only differ from man's emotions, to the extent that brute nature differs from human nature. Horse and man are alike carried away by the desire of procreation ; but the desire of the former is equine, the desire of the latter is human. So also the lusts and appetites of insects, fishes, and birds must needs vary according to the several natures. Thus, although each individual lives content and rejoices in that nature belonging to him wherein he has his being, yet the life, wherein each is content and rejoices, is nothing else but the idea, or soul, of the said individual, and hence the joy of one only differs in nature from the joy of another, to the extent that the essence of one differs from the essence of another. Lastly, it follows from the foregoing proposition, that there is no small difference between the joy which actuates, say, a drunkard, and the joy possessed by a philosopher, as I just mention here by the way. Thus far I have treated of the emotions attributable to man, in so far as he is passive. It remains to add a few words on those attributable to him in so far as he is active.

Prop. LVIII. *Besides pleasure and desire, which are passivities or passions, there are other emotions derived from pleasure and desire, which are attributable to us in so far as we are active.*

Proof.—When the mind conceives itself and its power of activity, it feels pleasure (III. liii.) : now the mind necessarily contemplates itself, when it conceives a true or adequate idea (II. xliii.). But the mind does conceive certain adequate ideas (II. xl. note ii.). Therefore it feels pleasure in so far as it conceives adequate ideas ; that is, in so far as it is active (III. i.). Again, the mind, both in so far as it has clear and distinct ideas, and in so far as it has confused ideas, endeavours to persist in its own being (III. ix.) ; but by such an endeavour we mean desire (by the note to the same Prop.) ; therefore, desire is also attributable to us, in so far as we understand, or (III. i.) in so far as we are active. *Q.E.D.*

Prop. LIX. *Among all the emotions attributable to the mind as active, there are none which cannot be referred to pleasure or desire.*

Proof.—All emotions can be referred to desire, pleasure, or pain, as their definitions, already given, show. Now by pain we mean that the mind's power of thinking is diminished or checked (III. xi. and note) ; therefore, in so far as the mind feels pain, its power of understanding, that is, of activity, is diminished or checked (III. i.) ; therefore, no painful emotions can be attributed to the mind in virtue of its being active, but only emotions of pleasure and desire, which (by the last Prop.) are attributable to the mind in that condition. *Q.E.D.*

Note.—All actions following from emotion, which are attributable to the mind in virtue of its understanding, I set down to strength of character (*fortitudo*), which I divide into courage (*animositas*) and highmindedness (*generositas*). By courage I mean the desire whereby every man strives to preserve his own being in accordance solely with the dictates of reason. By highmindedness I mean the desire whereby every man endeavours, solely under the dictates of reason, to aid other men and to unite them to himself in friendship. Those actions, therefore,

which have regard solely to the good of the agent I set down to courage, those which aim at the good of others I set down to highmindedness. Thus temperance, sobriety, and presence of mind in danger, &c., are varieties of courage ; courtesy, mercy, &c., are varieties of highmindedness.

I think I have thus explained, and displayed through their primary causes the principal emotions and vacillations of spirit, which arise from the combination of the three primary emotions, to wit, desire, pleasure, and pain. It is evident from what I have said, that we are in many ways driven about by external causes, and that like waves of the sea driven by contrary winds we toss to and fro unwitting of the issue and of our fate. But I have said, that I have only set forth the chief conflicting emotions, not all that might be given. For, by proceeding in the same way as above, we can easily show that love is united to repentance, scorn, shame, &c. I think everyone will agree from what has been said, that the emotions may be compounded one with another in so many ways, and so many variations may arise therefrom, as to exceed all possibility of computation. However, for my purpose, it is enough to have enumerated the most important ; to reckon up the rest which I have omitted would be more curious than profitable. It remains to remark concerning love, that it very often happens that while we are enjoying a thing which we longed for, the body, from the act of enjoyment, acquires a new disposition, whereby it is determined in another way, other images of things are aroused in it, and the mind begins to conceive and desire something fresh. For example, when we conceive something which generally delights us with its flavour, we desire to enjoy, that is, to eat it. But whilst we are thus enjoying it, the stomach is filled and the body is otherwise disposed. If, therefore, when the body is thus otherwise disposed, the image of the food which is present be stimulated, and consequently the endeavour or desire to eat it be stimulated also, the new disposition of the body will feel repugnance to the desire or attempt, and consequently the presence of the food which we formerly longed for will become odious. This revulsion of feeling is called satiety or weariness. For the rest, I have neglected the outward modifications of the body observable in emotions, such, for instance, as trembling, pallor, sobbing, laughter, &c., for these are attributable to the body only, without any reference to the mind. Lastly, the definitions of the emotions require to be supplemented in a few points ; I will therefore repeat them, interpolating such observations as I think should here and there be added.

Definitions of the Emotions

I. *Desire* is the actual essence of man, in so far as it is conceived, as determined to a particular activity by some given modification of itself.

Explanation.—We have said above, in the note to Prop. ix. of this part, that desire is appetite, with consciousness thereof ; further, that appetite is the essence of man, in so far as it is determined to act in a way tending to promote its own persistence. But, in the same note, I also remarked that, strictly speaking, I recognize no distinction between appetite and desire. For whether a man be conscious of his appetite or not, it remains one and the same appetite. Thus, in order to avoid the appearance of tautology, I have refrained from explaining desire by appetite ; but I have taken care to define it in such a manner, as to comprehend, under one head, all those endeavours of human nature, which we distinguish by the terms appetite, will, desire, or impulse. I might, indeed, have said, that desire is the essence of man, in so far as it is conceived as determined to a particular activity ; but from such a definition (cf. II. xxiii.) it would not follow that the mind can be conscious of its desire or appetite. Therefore, in order to imply the cause of such consciousness, it was necessary to add, in so far as it is determined by some given modification, &c. For, by a modification of man's essence, we understand every disposition of the said essence, whether such disposition be innate, or whether it be conceived solely under the attribute of thought, or solely under the attribute of extension, or whether, lastly, it be referred simultaneously to both these attributes. By the term desire, then, I here mean all man's endeavours, impulses, appetites, and volitions, which vary according to each man's disposition, and are, therefore, not seldom opposed one to another, according as a man is drawn in different directions, and knows not where to turn.

II. *Pleasure* is the transition of a man from a less to a greater perfection.

III. *Pain* is the transition of a man from a greater to a less perfection.

Explanation.—I say transition : for pleasure is not perfection itself. For, if man were born with the perfection to which he passes, he would possess the same, without the emotion of pleasure. This appears more clearly from the consideration of the contrary emotion, pain. No one can deny, that pain consists in the transition to a less perfection, and not in the less perfection itself : for a man cannot be pained, in so far as he partakes of perfection of any degree. Neither can we say, that pain consists in the absence of a greater perfection. For absence is nothing, whereas the emotion of pain is an activity ; wherefore this activity can only be the activity of transition from a greater to a less perfection—in other words, it is an activity whereby a man's power of action is lessened or constrained (cf. III. xi. note). I pass over the definitions of merriment, stimulation, melancholy, and grief, because these terms are generally used in reference to the body, and are merely kinds of pleasure or pain.

IV. *Wonder* is the conception (*imaginatio*) of anything, wherein the mind comes to a stand, because the particular concept in question has no connection with other concepts (cf. III. lii. and note).

Explanation.—In the note to II. xviii. we showed the reason, why the mind, from the contemplation of one thing, straightway falls to the contemplation of another thing, namely, because the images of the two things are so associated and arranged, that one follows the other. This state of association is impossible, if the image of the thing be new ; the mind will then be at a stand in the contemplation thereof, until it is determined by other causes to think of something else.

Thus the conception of a new object, considered in itself, is of the same nature as other conceptions ; hence, I do not include wonder among the emotions, nor do I see why I should so include it, inasmuch as this distraction of the mind arises from no positive cause drawing away the mind from other objects, but merely from the absence of a cause, which should determine the mind to pass from the contemplation of one object to the contemplation of another.

I, therefore, recognize only three primitive or primary emotions (as I said in the note to III. xi.), namely, pleasure, pain, and desire. I have spoken of wonder simply because it is customary to speak of certain emotions springing from the three primitive ones by different names, when they are referred to the objects of our wonder. I am led by the same motive to add a definition of contempt.

V. *Contempt* is the conception of anything which touches the mind so little, that its presence leads the mind to imagine those qualities which are not in it rather than such as are in it (cf. III. lii. note).

The definitions of *veneration* and *scorn* I here pass over, for I am not aware that any emotions are named after them.

VI. *Love* is pleasure, accompanied by the idea of an external cause.

Explanation.—This definition explains sufficiently clearly the essence of love ; the definition given by those authors who say that love is the lover's wish to unite himself to the loved object expresses a property, but not the essence of love ; and, as such authors have not sufficiently discerned love's essence, they have been unable to acquire a true conception of its properties, accordingly their definition is on all hands admitted to be very obscure. It must, however, be noted, that when I say that it is a property of love, that the lover should wish to unite himself to the beloved object, I do not here mean by wish consent, or conclusion, or a free decision of the mind (for I have shown such, in II. xlviii., to be fictitious) ; neither do I mean a desire of being united to the loved object when it is absent, or of continuing in its presence when it is at hand ; for love can be conceived without either of these desires ; but by wish I mean the contentment, which is in the lover, on account of the presence of the beloved object, whereby the pleasure of the lover is strengthened, or at least maintained.

VII. *Hatred* is pain, accompanied by the idea of an external cause.

Explanation.—These observations are easily grasped after what has been said in the explanation of the preceding definition (cf. also III. xiii. note).

VIII. *Inclination* is pleasure, accompanied by the idea of something which is accidentally a cause of pleasure.

IX. *Aversion* is pain, accompanied by the idea of something which is accidentally the cause of pain (cf. III. xv. note).

X. *Devotion* is love towards one whom we admire.

Explanation.—Wonder (*admiratio*) arises (as we have shown, III. lii.) from the novelty of a thing. If, therefore, it happens that the object of our wonder is often conceived by us, we shall cease to wonder at it ; thus we see, that the emotion of devotion readily degenerates into simple love.

XI. *Derision* is pleasure arising from our conceiving the presence of a quality, which we despise, in an object which we hate.

Explanation.—In so far as we despise a thing which we hate, we deny existence thereof (III. lii. note), and to that extent rejoice (III. xx.). But since we assume that man hates that which he derides, it follows that the pleasure in question is not without alloy (cf. III. xlvii. note).

XII. *Hope* is an inconstant pleasure, arising from the idea of something past or future, whereof we to a certain extent doubt the issue.

XIII. *Fear* is an inconstant pain arising from the idea of something past or future, whereof we to a certain extent doubt the issue (cf. III. xviii. note).

Explanation.—From these definitions it follows, that there is no hope unmingled with fear, and no fear unmingled with hope. For he, who depends on hope and doubts concerning the issue of anything, is assumed to conceive something, which excludes the existence of the said thing in the future ; therefore he, to this extent, feels pain (cf. III. xix.) ; consequently, while dependent on hope, he fears for the issue. Contrariwise he, who fears, in other words doubts, concerning the issue of something which he hates, also conceives something which excludes the existence of the thing in question ; to this extent he feels pleasure, and consequently to this extent he hopes that it will turn out as he desires (III. xx.).

XIV. *Confidence* is pleasure arising from the idea of something past or future, wherefrom all cause of doubt has been removed.

XV. *Despair* is pain arising from the idea of something past or future, wherefrom all cause of doubt has been removed.

Explanation.—Thus confidence springs from hope, and despair from fear, when all cause for doubt as to the issue of an event has been removed : this comes to pass, because man conceives something past or future as present and regards it as such, or else because he conceives other things, which exclude the existence of the causes of his doubt. For, although we can never be absolutely certain of the issue of any particular event (II. xxxi. Coroll.), it may nevertheless happen that we feel no doubt concerning it. For we have shown, that to feel no doubt concerning a thing is not the same as to be quite certain of it (II. xlix. note). Thus it may happen that we are affected by the same emotion of pleasure or pain concerning a thing past or future, as concerning the conception of a thing present ; this I have already shown in III. xviii., to which, with its note, I refer the reader.

XVI. *Joy* is pleasure accompanied by the idea of something past, which has had an issue beyond our hope.

XVII. *Disappointment* is pain accompanied by the idea of something past, which has had an issue contrary to our hope.

XVIII. *Pity* is pain accompanied by the idea of evil, which has befallen someone else whom we conceive to be like ourselves (cf. III. xxii. note, and III. xxvii. note).

Explanation.—Between pity and sympathy (*miser cordia*) there seems to be no difference, unless perhaps that the former term is used in reference to a particular action, and the latter in reference to a disposition.

XIX. *Approval* is love towards one who has done good to another.

XX. *Indignation* is hatred towards one who has done evil to another.

Explanation.—I am aware that these terms are employed in senses somewhat different from those usually assigned. But my purpose is to explain, not the meaning of words, but the nature of things. I therefore make use of such terms, as may convey my meaning without any violent departure from their ordinary signification. One statement of my method will suffice. As for the cause of the above-named emotions see III. xxvii. Coroll. i., and III. xxii. note.

XXI. *Partiality* is thinking too highly of anyone because of the love we bear him.

XXII. *Disparagement* is thinking too meanly of anyone because we hate him.

Explanation.—Thus partiality is an effect of love, and disparagement an effect of hatred : so that partiality may also be defined as love, in so far as it induces a man to think too highly of a beloved object. Contrariwise, disparagement may be defined as hatred, in so far as it induces a man to think too meanly of a hated object. Cf. III. xxvi. note.

XXIII. *Envy* is hatred, in so far as it induces a man to be pained by another's good fortune, and to rejoice in another's evil fortune.

Explanation.—Envy is generally opposed to sympathy, which, by doing some violence to the meaning of the word, may therefore be thus defined :

XXIV. *Sympathy (misericordia)* is love, in so far as it induces a man to feel pleasure at another's good fortune, and pain at another's evil fortune.

Explanation.—Concerning envy see the notes to III. xxiv. and xxxii. These emotions also arise from pleasure or pain accompanied by the idea of something external, as cause either in itself or accidentally. I now pass on to other emotions, which are accompanied by the idea of something within as a cause.

XXV. *Self-approval* is pleasure arising from a man's contemplation of himself and his own power of action.

XXVI. *Humility* is pain arising from a man's contemplation of his own weakness of body or mind.

Explanation.—Self-complacency is opposed to humility, in so far as we thereby mean pleasure arising from a contemplation of our own power of action ; but, in so far as we mean thereby pleasure accompanied by the idea of any action which we believe we have performed by the free decision of our mind, it is opposed to repentance, which we may thus define :

XXVII. *Repentance* is pain accompanied by the idea of some action, which we believe we have performed by the free decision of our mind.

Explanation.—The causes of these emotions we have set forth in III. li. note, and in III. liii., liv., lv. and note. Concerning the free decision of the mind see II. xxxv. note. This is perhaps the place to call attention to the fact, that it is nothing wonderful that all those actions, which are commonly called wrong, are followed by pain, and all those, which are called right, are followed by pleasure. We can easily gather from what has been said, that this depends in great measure on education. Parents, by reprobating the former class of actions, and by frequently chiding their children because of them, and also by persuading to and praising the latter class, have brought it about, that the former should be associated with pain and the latter with pleasure. This is confirmed by experience. For custom and religion are not the same among all men, but that which some consider sacred others consider profane, and what some consider honourable others consider disgraceful. According as each man has been educated, he feels repentance for a given action or glories therein.

XXVIII. *Pride* is thinking too highly of one's self from self-love.

Explanation.—Thus pride is different from partiality, for the latter term is used in reference to an external object, but pride is used of a man thinking too highly of himself. However, as partiality is the effect of love, so is pride the effect or property of self-love, which may therefore be thus defined, love of self or self-approval, in so far as it leads a man to think too highly of himself. To this emotion there is no contrary. For no one thinks too meanly of himself because of self-hatred ; I say that no one thinks too meanly of himself, in so far as he conceives that he is incapable of doing this or that. For whatsoever a man imagines that he is incapable of doing, he imagines this of necessity, and by that notion he is so disposed, that he really cannot do that which he conceives that he cannot do. For, so long as he conceives that he cannot do it, so long is he not determined to do it, and consequently so long is it impossible for him to do it. However, if we consider such matters as only depend on opinion, we shall find it conceivable that a man may think too meanly of himself ; for it may happen, that a man, sorrowfully regarding his own weakness, should imagine that he is despised by all men, while the rest of the world are thinking of nothing less than of despising him. Again, a man may think too meanly of himself, if he deny of himself in the present something in relation to a future

time of which he is uncertain. As, for instance, if he should say that he is unable to form any clear conceptions, or that he can desire and do nothing but what is wicked and base, &c. We may also say, that a man thinks too meanly of himself, when we see him from excessive fear of shame refusing to do things which others, his equals, venture. We can, therefore, set down as a contrary to pride an emotion which I will call self-abasement, for as from self-complacency springs pride, so from humility springs self-abasement, which I will accordingly thus define :

XXIX. *Self-abasement* is thinking too meanly of one's self by reason of pain.

Explanation—We are nevertheless generally accustomed to oppose pride to humility, but in that case we pay more attention to the effect of either emotion than to its nature. We are wont to call proud the man who boasts too much (III. xxx. note), who talks of nothing but his own virtues and other people's faults, who wishes to be first ; and lastly who goes through life with a style and pomp suitable to those far above him in station. On the other hand, we call humble the man who too often blushes, who confesses his faults, who sets forth other men's virtues, and who, lastly, walks with bent head and is negligent of his attire. However, these emotions, humility and self-abasement, are extremely rare. For human nature, considered in itself, strives against them as much as it can (see III. xiii., liv.) ; hence those, who are believed to be most self-abased and humble, are generally in reality the most ambitious and envious.

XXX. *Honour*^[11] is pleasure accompanied by the idea of some action of our own, which we believe to be praised by others.

XXXI. *Shame* is pain accompanied by the idea of some action of our own, which we believe to be blamed by others.

Explanation.—On this subject see the note to III. xxx. But we should here remark the difference which exists between shame and modesty. Shame is the pain following the deed whereof we are ashamed. Modesty is the fear or dread of shame, which restrains a man from committing a base action. Modesty is usually opposed to shamelessness, but the latter is not an emotion, as I will duly show ; however, the names of the emotions (as I have remarked already) have regard rather to their exercise than to their nature.

I have now fulfilled the task of explaining the emotions arising from pleasure and pain. I therefore proceed to treat of those which I refer to desire.

XXXII. *Regret* is the desire or appetite to possess something, kept alive by the remembrance of the said thing, and at the same time constrained by the remembrance of other things which exclude the existence of it.

Explanation.—When we remember a thing, we are by that very fact, as I have already said more than once, disposed to contemplate it with the same emotion as if it were something present ; but this disposition or endeavour, while we are awake, is generally checked by the images of things which exclude the existence of that which we remember. Thus when we remember something which affected us with a certain pleasure, we by that very fact endeavour to regard it with the same emotion of pleasure as though it were present, but this endeavour is at once checked by the remembrance of things which exclude the existence of the thing in question. Wherefore regret is, strictly speaking, a pain opposed to that of pleasure, which arises from the absence of something we hate (cf. III. xlvii. note). But, as the name regret seems to refer to desire, I set this emotion down, among the emotions springing from desire.

XXXIII. *Emulation* is the desire of something, engendered in us by our conception that others have the same desire.

Explanation.—He who runs away, because he sees others running away, or he who fears, because he sees others in fear ; or again, he who, on seeing that another man has burnt his hand, draws towards him his own hand, and moves his body as though his own were burnt ; such an one can be said to imitate another's emotion, but not to emulate him ; not because the causes of emulation and imitation are different, but because it has become customary to speak of emulation only in him, who imitates that which we deem to be honourable, useful, or pleasant. As to the cause of emulation, cf. III. xxvii. and note. The reason why this emotion is generally coupled with envy may be seen from III. xxxii. and note.

XXXIV. *Thankfulness* or *Gratitude* is the desire or zeal springing from love, whereby we endeavour to benefit him, who with similar feelings of love has conferred a benefit on us. Cf. III. xxxix. note and xl.

XXXV. *Benevolence* is the desire of benefiting one whom we pity. Cf. III. xxvii. note.

XXXVI. *Anger* is the desire, whereby through hatred we are induced to injure one whom we hate, III. xxxix.

XXXVII. *Revenge* is the desire whereby we are induced, through mutual hatred, to injure one who, with similar feelings, has injured us. (See III. xl. Coroll. ii and note.)

XXXVIII. *Cruelty* or *savageness* is the desire, whereby a man is impelled to injure one whom we love or pity.

Explanation—To cruelty is opposed clemency, which is not a passive state of the mind, but a power whereby man restrains his anger and revenge.

XXXIX. *Timidity* is the desire to avoid a greater evil, which we dread, by undergoing a lesser evil. Cf. III. xxxix. note.

XL. *Daring* is the desire, whereby a man is set on to do something dangerous which his equals fear to attempt.

XLI. *Cowardice* is attributed to one, whose desire is checked by the fear of some danger which his equals dare to encounter.

Explanation.—Cowardice is, therefore, nothing else but the fear of some evil, which most men are wont not to fear ; hence I do not reckon it among the emotions springing from desire. Nevertheless, I have chosen to explain it here, because, in so far as we look to the desire, it is truly opposed to the emotion of daring.

XLII. *Consternation* is attributed to one, whose desire of avoiding evil is checked by amazement at the evil which he fears.

Explanation.—Consternation is, therefore, a species of cowardice. But, inasmuch as consternation arises from a double fear, it may be more conveniently defined as a fear which keeps a man so bewildered and wavering, that he is not able to remove the evil. I say bewildered, in so far as we understand his desire of removing the evil to be constrained by his amazement. I say wavering, in so far as we understand the said desire to be constrained by the fear of another evil, which equally torments him : whence it comes to pass that he knows not, which he may avert of the two. On this subject, see III. xxxix. note, and III. lii. note. Concerning cowardice and daring, see III. li. note.

XLIII. *Courtesy*, or *deference* (*Humanitas seu modestia*), is the desire of acting in a way that should please men, and refraining from that which should displease them.

XLIV. *Ambition* is the immoderate desire of power.

Explanation.—Ambition is the desire, whereby all the emotions (cf. III. xxvii. and xxxi.) are fostered and strengthened ; therefore this emotion can with difficulty be overcome. For, so long as a man is bound by any desire, he is at the same time necessarily bound by this. "The best men," says Cicero, "are especially led by honour. Even philosophers, when they write a book contemning honour, sign their names thereto," and so on.

XLV. *Luxury* is excessive desire, or even love of living sumptuously.

XLVI. *Intemperance* is the excessive desire and love of drinking.

XLVII. *Avarice* is the excessive desire and love of riches.

XLVIII. *Lust* is desire and love in the matter of sexual intercourse.

Explanation.—Whether this desire be excessive or not, it is still called lust. These last five emotions (as I have shown in III. lvi.) have on contraries. For deference is a species of ambition. Cf. III. xxix. note.

Again, I have already pointed out, that temperance, sobriety, and chastity indicate rather a power than a passivity of the mind. It may, nevertheless, happen, that an avaricious, an ambitious, or a timid man may abstain from excess in eating, drinking, or sexual indulgence, yet avarice, ambition, and fear are not contraries to luxury, drunkenness, and debauchery. For an avaricious man often is glad to gorge himself with food and drink at another man's expense. An ambitious man will restrain himself in nothing, so long as he thinks his indulgences are secret ; and if he lives among drunkards and debauchees, he will, from the mere fact of being ambitious, be more prone to those vices. Lastly, a timid man does that which he would not. For though an avaricious man should, for the sake of avoiding death, cast

his riches into the sea, he will none the less remain avaricious ; so, also, if a lustful man is downcast, because he cannot follow his bent, he does not, on the ground of abstinence, cease to be lustful. In fact, these emotions are not so much concerned with the actual feasting, drinking, &c., as with the appetite and love of such. Nothing, therefore, can be opposed to these emotions, but high-mindedness and valour, whereof I will speak presently.

The definitions of jealousy and other waverings of the mind I pass over in silence, first, because they arise from the compounding of the emotions already described ; secondly, because many of them have no distinctive names, which shows that it is sufficient for practical purposes to have merely a general knowledge of them. However, it is established from the definitions of the emotions, which we have set forth, that they all spring from desire, pleasure, or pain, or, rather, that there is nothing besides these three ; wherefore each is wont to be called by a variety of names in accordance with its various relations and extrinsic tokens. If we now direct our attention to these primitive emotions, and to what has been said concerning the nature of the mind, we shall be able thus to define the emotions, in so far as they are referred to the mind only.

General Definition of the Emotions

Emotion, which is called a passivity of the soul, is a confused idea, whereby the mind affirms concerning its body, or any part thereof, a force for existence (*existendi vis*) greater or less than before, and by the presence of which the mind is determined to think of one thing rather than another.

Explanation.—I say, first, that emotion or passion of the soul is a confused idea. For we have shown that the mind is only passive, in so far as it has inadequate or confused ideas. (III. iii.) I say, further, whereby the mind affirms concerning its body or any part thereof a force for existence greater than before. For all the ideas of bodies, which we possess, denote rather the actual disposition of our own body (II. xvi. Coroll. ii.) than the nature of an external body. But the idea which constitutes the reality of an emotion must denote or express the disposition of the body, or of some part thereof, because its power of action or force for existence is increased or diminished, helped or hindered. But it must be noted that, when I say a greater or less force for existence than before, I do not mean that the mind compares the present with the past disposition of the body, but that the idea which constitutes the reality of an emotion affirms something of the body, which, in fact, involves more or less of reality than before.

And inasmuch as the essence of mind consists in the fact (II. xi., xiii.), that it affirms the actual existence of its own body, and inasmuch as we understand by perfection the very essence of a thing, it follows that the mind passes to greater or less perfection, when it happens to affirm concerning its own body, or any part thereof, something involving more or less reality than before.

When, therefore, I said above that the power of the mind is increased or diminished, I merely meant that the mind had formed of its own body, or of some part thereof, an idea involving more or less of reality, than it had already affirmed concerning its own body. For the excellence of ideas, and the actual power of thinking are measured by the excellence of the object. Lastly, I have added by the presence of which the mind is determined to think of one thing rather than another, so that, besides the nature of pleasure and pain, which the first part of the definition explains, I might also express the nature of desire.

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1. ^ *Conscientiæ morsus*—thus rendered by Mr. Pollock.
 2. ^ By "men" in this and the following propositions, I mean men whom we regard without any particular emotion.
 3. ^ So Van Vloten and Bruder. The Dutch version and Camerer read, "an internal cause." "Honor" = *Gloria*.
 4. ^ See previous endnote.
 5. ^ Ovid, "Amores," II. xix. 4,5. Spinoza transposes the verses.

*"Speremus pariter, pariter metuamus amantes ;
Ferreus est, si quis, quod sinit alter, amat."*

6. ^ This is possible, though the human mind is part of the divine intellect, as I have shown in II. xiii. note.
 7. ^ *Gloria*.
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Ethics (Spinoza)/Part 4

←Part III *Ethics by Benedictus de* Part V→
Spinoza
Part IV.

Part IV. Of Human Bondage, or the Strength of the Emotions.

Preface

Human infirmity in moderating and checking the emotions I name bondage: for, when a man is a prey to his emotions, he is not his own master, but lies at the mercy of fortune: so much so, that he is often compelled, while seeing that which is better for him, to follow that which is worse. Why this is so, and what is good or evil in the emotions, I propose to show in this part of my treatise. But, before I begin, it would be well to make a few prefatory observations on perfection and imperfection, good and evil.

When a man has purposed to make a given thing, and has brought it to perfection, his work will be pronounced perfect, not only by himself, but by everyone who rightly knows, or thinks that he knows, the intention and aim of its author. For instance, suppose anyone sees a work (which I assume to be not yet completed), and knows that the aim of the author of that work is to build a house, he will call the work imperfect ; he will, on the other hand, call it perfect, as soon as he sees that it is carried through to the end, which its author had purposed for it. But if a man sees a work, the like whereof he has never seen before, and if he knows not the intention of the artificer, he plainly cannot know, whether that work be perfect or imperfect. Such seems to be the primary meaning of these terms.

But, after men began to form general ideas, to think out types of houses, buildings, towers, &c., and to prefer certain types to others, it came about, that each man called perfect that which he saw agree with the general idea he had formed of the thing in question, and called imperfect that which he saw agree less with his own preconceived type, even though it had evidently been completed in accordance with the idea of its artificer. This seems to be the only reason for calling natural phenomena, which, indeed, are not made with human hands, perfect or imperfect : for men are wont to form general ideas of things natural, no less than of things artificial, and such ideas they hold as types, believing that Nature (who they think does nothing without an object) has them in view, and has set them as types before herself. Therefore, when they behold something in Nature, which does not wholly conform to the preconceived type which they have formed of the thing in question, they say that Nature has fallen short or has blundered, and has left her work incomplete. Thus we see that men are wont to style natural phenomena perfect or imperfect rather from their own prejudices, than from true knowledge of what they pronounce upon.

Now we showed in the Appendix to Part I., that Nature does not work with an end in view. For the eternal and infinite Being, which we call God or Nature, acts by the same necessity as that whereby it exists. For we have shown, that by the same necessity of its nature, whereby it exists, it likewise works (I. xvi.). The reason or cause why God or Nature exists, and the reason why he acts, are one and the same. Therefore, as he does not exist for the sake of an end, so neither does he act for the sake of an end ; of his existence and of his action there is neither origin nor end. Wherefore, a cause which is called final is nothing else but human desire, in so far as it is considered as the origin or cause of anything. For example, when we say that to be inhabited is the final cause of this or that house, we mean nothing more than that a man, conceiving the conveniences of household life, had a desire to build a house. Wherefore, the being inhabited, in so far as it is regarded as a final cause, is nothing else but this particular desire, which is really the efficient cause ; it is regarded as the primary cause, because men are generally ignorant of the causes of their desires. They are, as I have often said already, conscious of their own actions and appetites, but ignorant of the causes whereby they are determined to any particular desire. Therefore, the common saying that Nature sometimes falls short, or blunders, and produces things which are imperfect, I set down among the glosses treated of in the Appendix to Part I. Perfection and imperfection, then, are in reality merely modes of thinking, or

notions which we form from a comparison among one another of individuals of the same species ; hence I said above (II. Def. vi.), that by reality and perfection I mean the same thing. For we are wont to refer all the individual things in nature to one genus, which is called the highest genus, namely, to the category of Being, whereto absolutely all individuals in nature belong. Thus, in so far as we refer the individuals in nature to this category, and comparing them one with another, find that some possess more of being or reality than others, we, to this extent, say that some are more perfect than others. Again, in so far as we attribute to them anything implying negation—as term, end, infirmity, etc., we, to this extent, call them imperfect, because they do not affect our mind so much as the things which we call perfect, not because they have any intrinsic deficiency, or because Nature has blundered. For nothing lies within the scope of a thing's nature, save that which follows from the necessity of the nature of its efficient cause, and whatsoever follows from the necessity of the nature of its efficient cause necessarily comes to pass.

As for the terms good and bad, they indicate no positive quality in things regarded in themselves, but are merely modes of thinking, or notions which we form from the comparison of things one with another. Thus one and the same thing can be at the same time good, bad, and indifferent. For instance, music is good for him that is melancholy, bad for him that mourns ; for him that is deaf, it is neither good nor bad.

Nevertheless, though this be so, the terms should still be retained. For, inasmuch as we desire to form an idea of man as a type of human nature which we may hold in view, it will be useful for us to retain the terms in question, in the sense I have indicated.

In what follows, then, I shall mean by, "good" that, which we certainly know to be a means of approaching more nearly to the type of human nature, which we have set before ourselves ; by "bad," that which we certainly know to be a hindrance to us in approaching the said type. Again, we shall that men are more perfect, or more imperfect, in proportion as they approach more or less nearly to the said type. For it must be specially remarked that, when I say that a man passes from a lesser to a greater perfection, or vice versâ, I do not mean that he is changed from one essence or reality to another; for instance, a horse would be as completely destroyed by being changed into a man, as by being changed into an insect. What I mean is, that we conceive the thing's power of action, in so far as this is understood by its nature, to be increased or diminished. Lastly, by perfection in general I shall, as I have said, mean reality—in other words, each thing's essence, in so far as it exists, and operates in a particular manner, and without paying any regard to its duration. For no given thing can be said to be more perfect, because it has passed a longer time in existence. The duration of things cannot be determined by their essence, for the essence of things involves no fixed and definite period of existence; but everything, whether it be more perfect or less perfect, will always be able to persist in existence with the same force wherewith it began to exist ; wherefore, in this respect, all things are equal.

Definitions

I. By *good* I mean that which we certainly know to be useful to us.

II. By *evil* I mean that which we certainly know to be a hindrance to us in the attainment of any good.

(Concerning these terms see the foregoing preface towards the end.)

III. Particular things I call *contingent* in so far as, while regarding their essence only, we find nothing therein, which necessarily asserts their existence or excludes it.

IV. Particular things I call *possible* in so far as, while regarding the causes whereby they must be produced, we know not, whether such causes be determined for producing them.

(In I. xxxiii. note. i., I drew no distinction between possible and contingent, because there was in that place no need to distinguish them accurately.)

V. By *conflicting emotions* I mean those which draw a man in different directions, though they are of the same kind, such as luxury and avarice, which are both species of love, and are contraries, not by nature, but by accident.

VI. What I mean by emotion felt towards a thing, future, present, and past, I explained in III. xviii., notes. i. and ii., which see.

(But I should here also remark, that we can only distinctly conceive distance of space or time up to a certain definite limit; that is, all objects distant from us more than two hundred feet, or whose distance from the place where we are exceeds that which we can distinctly conceive, seem to be an equal distance from us, and all in the same plane; so also objects, whose time of existing is conceived as removed from the present by a longer interval than we can distinctly conceive, seem to be all equally distant from the present, and are set down, as it were, to the same moment of time.)

VII. By an *end*, for the sake of which we do something, I mean a desire.

VIII. By *virtue* (*virtus*) and *power* I mean the same thing ; that is (III. vii), virtue, in so far as it is referred to man, is a man's nature or essence, in so far as it has the power of effecting what can only be understood by the laws of that nature.

Axiom

There is no individual thing in nature, than which there is not another more powerful and strong. Whatsoever thing be given, there is something stronger whereby it can be destroyed.

Propositions

Prop. I. *No positive quality possessed by a false idea is removed by the presence of what is true, in virtue of its being true.*

Proof.—Falsity consists solely in the privation of knowledge which inadequate ideas involve (II. xxxv.), nor have they any positive quality on account of which they are called false (II. xxxiii.) ; contrariwise, in so far as they are referred to God, they are true (II. xxxii.). Wherefore, if the positive quality possessed by a false idea were removed by the presence of what is true, in virtue of its being true, a true idea would then be removed by itself, which (IV. iii.) is absurd. Therefore, no positive quality possessed by a false idea, &c. *Q.E.D.*

Note.—This proposition is more clearly understood from II. xvi. Coroll. ii. For imagination is an idea, which indicates rather the present disposition of the human body than the nature of the external body; not indeed distinctly, but confusedly; whence it comes to pass, that the mind is said to err. For instance, when we look at the sun, we conceive that it is distant from us about two hundred feet; in this judgment we err, so long as we are in ignorance of its true distance; when its true distance is known, the error is removed, but not the imagination ; or, in other words, the idea of the sun, which only explains the nature of that luminary, in so far as the body is affected thereby : wherefore, though we know the real distance, we shall still nevertheless imagine the sun to be near us. For, as we said in II. xxxv. note, we do not imagine the sun to be so near us, because we are ignorant of its true distance, but because the mind conceives the magnitude of the sun to the extent that the body is affected thereby. Thus, when the rays of the sun falling on the surface of water are reflected into our eyes, we imagine the sun as if it were in the water, though we are aware of its real position; and similarly other imaginations, wherein the mind is deceived, whether they indicate the natural disposition of the body, or that its power of activity is increased or diminished, are not contrary to the truth, and do not vanish at its presence. It happens indeed that, when we mistakenly fear an evil, the fear vanishes when we hear the true tidings ; but the contrary also happens, namely, that we fear an evil which will certainly come, and our fear vanishes when we hear false tidings ; thus imaginations do not vanish at the presence of the truth, in virtue of its being true, but because other imaginations, stronger than the first, supervene and exclude the present existence of that which we imagined, as I have shown in II. xvii.

Prop. II. *We are only passive, in so far as we are a part of Nature, which cannot be conceived by itself without other parts.*

Proof.—We are said to be passive, when something arises in us, whereof we are only a partial cause (III. Def. ii.), that is (III. Def. i.), something which cannot be deduced solely from the laws of our nature. We are passive therefore, in so far as we are a part of Nature, which cannot be conceived by itself without other parts. *Q.E.D.*

Prop. III. *The force whereby a man persists in existing is limited, and is infinitely surpassed by the power of external causes.*

Proof.—This is evident from the axiom of this part. For, when man is given, there is something else—say A—more powerful; when A is given, there is something else—say B—more powerful than A, and so on to infinity; thus the power of man is limited by the power of some other thing, and is infinitely surpassed by the power of external causes. *Q.E.D.*

Prop. IV. *It is impossible, that man should not be a part of Nature, or that he should be capable of undergoing no changes, save such as can be understood through his nature only as their adequate cause.*

Proof.—The power, whereby each particular thing, and consequently man, preserves his being, is the power of God or of Nature (I. xxiv. Coroll.) ; not in so far as it is infinite, but in so far as it can be explained by the actual human essence (III. vii.). Thus the power of man, in so far as it is explained through his own actual essence, is a part of the infinite power of God or Nature, in other words, of the essence thereof (I. xxxiv.). This was our first point. Again, if it were possible, that man should undergo no changes save such as can be understood solely through the nature of man, it would follow that he would not be able to die, but would always necessarily exist; this would be the necessary consequence of a cause whose power was either finite or infinite; namely, either of man's power only, inasmuch as he would be capable of removing from himself all changes which could spring from external causes; or of the infinite power of Nature, whereby all individual things would be so ordered, that man should be incapable of undergoing any changes save such as tended towards his own preservation. But the first alternative is absurd (by the last Prop., the proof of which is universal, and can be applied to all individual things). Therefore, if it be possible, that man should not be capable of undergoing any changes, save such as can be explained solely through his own nature, and consequently that he must always (as we have shown) necessarily exist; such a result must follow from the infinite power of God, and consequently (I. xvi.) from the necessity of the divine nature, in so far as it is regarded as affected by the idea of any given man, the whole order of nature as conceived under the attributes of extension and thought must be deducible. It would therefore follow (I. xxi.) that man is infinite, which (by the first part of this proof) is absurd. It is, therefore, impossible, that man should not undergo any changes save those whereof he is the adequate cause. *Q.E.D.*

Corollary.—Hence it follows, that man is necessarily always a prey to his passions, that he follows and obeys the general order of nature, and that he accommodates himself thereto, as much as the nature of things demands.

Prop. V. *The power and increase of every passion, and its persistence in existing are not defined by the power, whereby we ourselves endeavour to persist in existing, but by the power of an external cause compared with our own.*

Proof.—The essence of a passion cannot be explained through our essence alone (III. Deff. i. and ii.), that is (III. vii.), the power of a passion cannot be defined by the power, whereby we ourselves endeavour to persist in existing, but (as is shown in II. xvi.) must necessarily be defined by the power of an external cause compared with our own. *Q.E.D.*

Prop. VI. *The force of any passion or emotion can overcome the rest of a man's activities or power, so that the emotion becomes obstinately fixed to him.*

Proof.—The force and increase of any passion and its persistence in existing are defined by the power of an external cause compared with our own (by the foregoing Prop.) ; therefore (IV. iii.) it can overcome a man's power, &c. *Q.E.D.*

Prop. VII. *An emotion can only be controlled or destroyed by another emotion contrary thereto, and with more power for controlling emotion.*

Proof.—Emotion, in so far as it is referred to the mind, is an idea, whereby the mind affirms of its body a greater or less force of existence than before (cf. the general Definition of the Emotions at the end of Part III.). When, therefore, the mind is assailed by any emotion, the body is at the same time affected with a modification whereby its power of activity is increased or diminished. Now this modification of the body (IV. v.) receives from its cause the force for persistence in its being ; which force can only be checked or destroyed by a bodily cause (II. vi.), in virtue

of the body being affected with a modification contrary to (III. v.) and stronger than itself (IV. Ax.) ; wherefore (II. xii.) the mind is affected by the idea of a modification contrary to, and stronger than the former modification, in other words, (by the general definition of the emotions) the mind will be affected by an emotion contrary to and stronger than the former emotion, which will exclude or destroy the existence of the former emotion ; thus an emotion cannot be destroyed nor controlled except by a contrary and stronger emotion. *Q.E.D.*

Corollary.—An emotion, in so far as it is referred to the mind, can only be controlled or destroyed through an idea of a modification of the body contrary to, and stronger than, that which we are undergoing. For the emotion which we undergo can only be checked or destroyed by an emotion contrary to, and stronger than, itself, in other words, (by the general Definition of the Emotions) only by an idea of a modification of the body contrary to, and stronger than, the modification which we undergo.

Prop. VIII. *The knowledge of good and evil is nothing else but the emotions of pleasure or pain, in so far as we are conscious thereof.*

Proof.—We call a thing good or evil, when it is of service or the reverse in preserving our being (IV. Deff. i. and ii.), that is (III. vii.), when it increases or diminishes, helps or hinders, our power of activity. Thus, in so far as we perceive that a thing affects us with pleasure or pain, we call it good or evil; wherefore the knowledge of good and evil is nothing else but the idea of the pleasure or pain, which necessarily follows from that pleasurable or painful emotion (II. xxii.). But this idea is united to the emotion in the same way as mind is united to body (II. xxi.); that is, there is no real distinction between this idea and the emotion or idea of the modification of the body, save in conception only. Therefore the knowledge of good and evil is nothing else but the emotion, in so far as we are conscious thereof. *Q.E.D.*

Prop. IX. *An emotion, whereof we conceive the cause to be with us at the present time, is stronger than if we did not conceive the cause to be with us.*

Proof.—Imagination or conception is the idea, by which the mind regards a thing as present (II. xvii. note), but which indicates the disposition of the mind rather than the nature of the external thing (II. xvi. Coroll. ii.). An emotion is therefore a conception, in so far as it indicates the disposition of the body. But a conception (by II. xvii.) is stronger, so long as we conceive nothing which excludes the present existence of the external object; wherefore an emotion is also stronger or more intense, when we conceive the cause to be with us at the present time, than when we do not conceive the cause to be with us. *Q.E.D.*

Note.—When I said above in III. xviii. that we are affected by the image of what is past or future with the same emotion as if the thing conceived were present, I expressly stated, that this is only true in so far as we look solely to the image of the thing in question itself; for the thing's nature is unchanged, whether we have conceived it or not; I did not deny that the image becomes weaker, when we regard as present to us other things which exclude the present existence of the future object: I did not expressly call attention to the fact, because I purposed to treat of the strength of the emotions in this part of my work.

Corollary.—The image of something past or future, that is, of a thing which we regard as in relation to time past or time future, to the exclusion of time present, is, when other conditions are equal, weaker than the image of something present; consequently an emotion felt towards what is past or future is less intense, other conditions being equal, than an emotion felt towards something present.

Prop. X. *Towards something future, which we conceive as close at hand, we are affected more intensely, than if we conceive that its time for existence is separated from the present by a longer interval ; so too by the remembrance of what we conceive to have not long passed away we are affected more intensely, than if we conceive that it has long passed away.*

Proof.—In so far as we conceive a thing as close at hand, or not long passed away, we conceive that which excludes the presence of the object less, than if its period of future existence were more distant from the present, or if it had long passed away (this is obvious) therefore (by the foregoing Prop.) we are, so far, more intensely affected towards

it. *Q.E.D.*

Corollary.—From the remarks made in Def. vi. of this part it follows that, if objects are separated from the present by a longer period than we can define in conception, though their dates of occurrence be widely separated one from the other, they all affect us equally faintly.

Prop. XI. *An emotion towards that which we conceive as necessary is, when other conditions are equal, more intense than an emotion towards that which possible, or contingent, or non-necessary.*

Proof.—In so far as we conceive a thing to be necessary, we, to that extent, affirm its existence ; on the other hand we deny a thing's existence, in so far as we conceive it not to be necessary I. xxxiii. note. i.) ; wherefore (IV. ix.) an emotion towards that which is necessary is, other conditions being equal, more intense than an emotion that which is non-necessary. *Q.E.D.*

Prop. XII. *An emotion towards a thing, which we know not to exist at the present time, and which we conceive as possible, is more intense, other conditions being equal, than an emotion towards a thing contingent.*

Proof.—In so far as we conceive a thing as contingent, we are affected by the conception of some further thing, which would assert the existence of the former (IV. Def. iii.); but, on the other hand, we (by hypothesis) conceive certain things, which exclude its present existence. But, in so far as we conceive a thing to be possible in the future, we there by conceive things which assert its existence (IV. iv.), that is (III. xviii.), things which promote hope or fear : wherefore an emotion towards something possible is more vehement. *Q.E.D.*

Corollary.—An emotion towards a thing, which we know not to exist in the present, and which we conceive as contingent, is far fainter, than if we conceive the thing to be present with us.

Proof.—Emotion towards a thing, which we conceive to exist, is more intense than it would be, if we conceived the thing as future (IV. ix. Coroll.), and is much more vehement, than if the future time be conceived as far distant from the present (IV. x.). Therefore an emotion towards a thing, whose period of existence we conceive to be far distant from the present, is far fainter, than if we conceive the thing as present ; it is, nevertheless, more intense, than if we conceived the thing as contingent, wherefore an emotion towards a thing, which we regard as contingent, will be far fainter, than if we conceived the thing to be present with us. *Q.E.D.*

Prop. XIII. *Emotion towards a thing contingent, which we know not to exist in the present, is, other conditions being equal, fainter than an emotion towards a thing past.*

Proof.—In so far as we conceive a thing as contingent, we are not affected by the image of any other thing, which asserts the existence of the said thing (IV. Def. iii.), but, on the other hand (by hypothesis), we conceive certain things excluding its present existence. But, in so far as we conceive it in relation to time past, we are assumed to conceive something, which recalls the thing to memory, or excites the image thereof (II. xviii. and note), which is so far the same as regarding it as present (II. xvii. Coroll.). Therefore (IV. ix.) an emotion towards a thing contingent, which we know does not exist in the present, is fainter, other conditions being equal, than an emotion towards a thing past. *Q.E.D.*

Prop. XIV. *A true knowledge of good and evil cannot check any emotion by virtue of being true, but only in so far as it is considered as an emotion.*

Proof.—An emotion is an idea, whereby the mind affirms of its body a greater or less force of existing than before (by the general Definition of the Emotions); therefore it has no positive quality, which can be destroyed by the presence of what is true; consequently the knowledge of good and evil cannot, by virtue of being true, restrain any emotion. But, in so far as such knowledge is an emotion (IV. viii.) if it have more strength for restraining emotion, it will to that extent be able to restrain the given emotion. *Q.E.D.*

Prop. XV. *Desire arising from the knowledge of good and bad can be quenched or checked by many of the other desires arising from the emotions whereby we are assailed.*

Proof.—From the true knowledge of good and evil, in so far as it is an emotion, necessarily arises desire (Def. of the Emotions, i.), the strength of which is proportioned to the strength of the emotion wherefrom it arises (III. xxxvii.).

But, inasmuch as this desire arises (by hypothesis) from the fact of our truly understanding anything, it follows that it is also present with us, in so far as we are active (III. i.), and must therefore be understood through our essence only (III. Def. ii.); consequently (III. vii.) its force and increase can be defined solely by human power. Again, the desires arising from the emotions whereby we are assailed are stronger, in proportion as the said emotions are more vehement; wherefore their force and increase must be defined solely by the power of external causes, which, when compared with our own power, indefinitely surpass it (IV. iii.); hence the desires arising from like emotions may be more vehement, than the desire which arises from a true knowledge of good and evil, and may, consequently, control or quench it. *Q.E.D.*

Prop. XVI. *Desire arising from the knowledge of good and evil, in so far as such knowledge regards what is future, may be more easily controlled or quenched, than the desire for what is agreeable at the present moment.*

Proof.—Emotion towards a thing, which we conceive as future, is fainter than emotion towards a thing that is present (IV. ix. Coroll.). But desire, which arises from the true knowledge of good and evil, though it be concerned with things which are good at the moment, can be quenched or controlled by any headstrong desire (by the last Prop., the proof whereof is of universal application). Wherefore desire arising from such knowledge, when concerned with the future, can be more easily controlled or quenched, &c. *Q.E.D.*

Prop. XVII. *Desire arising from the true knowledge of good and evil, in so far as such knowledge is concerned with what is contingent, can be controlled far more easily still, than desire for things that are present.*

Proof.—This Prop. is proved in the same way as the last Prop. from IV. xii. Coroll.

Note.—I think I have now shown the reason, why men are moved by opinion more readily than by true reason, why it is that the true knowledge of good and evil stirs up conflicts in the soul, and often yields to every kind of passion. This state of things gave rise to the exclamation of the poet :^[12]—

The better path I gaze at and approve, The worse—I follow."

Ecclesiastes seems to have had the same thought in his mind, when he says, "He who increaseth knowledge increaseth sorrow." I have not written the above with the object of drawing the conclusion, that ignorance is more excellent than knowledge, or that a wise man is on a par with a fool in controlling his emotions, but because it is necessary to know the power and the infirmity of our nature, before we can determine what reason can do in restraining the emotions, and what is beyond her power. I have said, that in the present part I shall merely treat of human infirmity. The power of reason over the emotions I have settled to treat separately.

Prop. XVIII. *Desire arising from pleasure is, other conditions being equal, stronger than desire arising from pain.*

Proof.—Desire is the essence of a man (Def. of the Emotions, i.), that is, the endeavour whereby a man endeavours to persist in his own being. Wherefore desire arising from pleasure is, by the fact of pleasure being felt, increased or helped; on the contrary, desire arising from pain is, by the fact of pain being felt, diminished or hindered; hence the force of desire arising from pleasure must be defined by human power together with the power of an external cause, whereas desire arising from pain must be defined by human power only. Thus the former is the stronger of the two. *Q.E.D.*

Note.—In these few remarks I have explained the causes of human infirmity and inconstancy, and shown why men do not abide by the precepts of reason. It now remains for me to show what course is marked out for us by reason, which of the emotions are in harmony with the rules of human reason, and which of them are contrary thereto. But, before I begin to prove my Propositions in detailed geometrical fashion, it is advisable to sketch them briefly in advance, so that everyone may more readily grasp my meaning.

As reason makes no demands contrary to nature, it demands, that every man should love himself, should seek that which is useful to him—I mean, that which is really useful to him, should desire everything which really brings man to greater perfection, and should, each for himself, endeavour as far as he can to preserve his own being. This is as necessarily true, as that a whole is greater than its part. (Cf. III. iv.)

Again, as virtue is nothing else but action in accordance with the laws of one's own nature (IV. Def. viii.), and as one endeavours to preserve his own being, except in accordance with the laws of his own nature, it follows, first, that the foundation of virtue is the endeavour to preserve one's own being, and that happiness consists in man's power of preserving his own being; secondly, that virtue is to be desired for its own sake, and that there is nothing more excellent or more useful to us, for the sake of which we should desire it; thirdly and lastly, that suicides are weak-minded, and are overcome by external causes repugnant to their nature. Further, it follows from Postulate iv., Part II., that we can never arrive at doing without all external things for the preservation of our being or living, so as to have no relations with things which are outside ourselves. Again, if we consider our mind, we see that our intellect would be more imperfect, if mind were alone, and could understand nothing besides itself. There are, then, many things outside ourselves, which are useful to us, and are, therefore, to be desired. Of such none can be discerned more excellent, than those which are in entire agreement with our nature. For if, for example, two individuals of entirely the same nature are united, they form a combination twice as powerful as either of them singly.

Therefore, to man there is nothing more useful than man—nothing, I repeat, more excellent for preserving their being can be wished for by men, than that all should so in all points agree, that the minds and bodies of all should form, as it were, one single mind and one single body, and that all should, with one consent, as far as they are able, endeavour to preserve their being, and all with one consent seek what is useful to them all. Hence, men who are governed by reason—that is, who seek what is useful to them in accordance with reason, desire for themselves nothing, which they do not also desire for the rest of mankind, and, consequently, are just, faithful, and honourable in their conduct.

Such are the dictates of reason, which I purposed thus briefly to indicate, before beginning to prove them in greater detail. I have taken this course, in order, if possible, to gain the attention of those who believe, that the principle that every man is bound to seek what is useful for himself is the foundation of impiety, rather than of piety and virtue.

Therefore, after briefly showing that the contrary is the case, I go on to prove it by the same method, as that whereby I have hitherto proceeded.

Prop. XIX. *Every man, by the laws of his nature, necessarily desires or shrinks from that which he deems to be good or bad.*

Proof.—The knowledge of good and evil is (IV. viii.) the emotion of pleasure or pain, in so far as we are conscious thereof; therefore, every man necessarily desires what he thinks good, and shrinks from what he thinks bad. Now this appetite is nothing else but man's nature or essence (Cf. the Definition of Appetite, III. ix. note, and Def. of the Emotions, i.). Therefore, every man, solely by the laws of his nature, desires the one, and shrinks from the other, &c. *Q.E.D.*

Prop. XX. *The more every man endeavours, and is able to seek what is useful to him—in other words, to preserve his own being—the more is he endowed with virtue; on the contrary, in proportion as a man neglects to seek what is useful to him, that is, to preserve his own being, he is wanting in power.*

Proof.—Virtue is human power, which is defined solely by man's essence (IV. Def. viii.), that is, which is defined solely by the endeavour made by man to persist in his own being. Wherefore, the more a man endeavours, and is able to preserve his own being, the more is he endowed with virtue, and, consequently (III. iv. and vi.), in so far as a man neglects to preserve his own being, he is wanting in power. *Q.E.D.*

Note.—No one, therefore, neglects seeking his own good, or preserving his own being, unless he be overcome by causes external and foreign to his nature. No one, I say, from the necessity of his own nature, or otherwise than under compulsion from external causes, shrinks from food, or kills himself: which latter may be done in a variety of ways. A man, for instance, kills himself under the compulsion of another man, who twists round his right hand, wherewith he happened to have taken up a sword, and forces him to turn the blade against his own heart; or, again, he may be compelled, like Seneca, by a tyrant's command, to open his own veins—that is, to escape a greater evil by incurring, a lesser; or, lastly, latent external causes may so disorder his imagination, and so affect his body, that it may assume a nature contrary to its former one, and whereof the idea cannot exist in the mind (III. x.) But that a man, from the

necessity of his own nature, should endeavour to become non-existent, is as impossible as that something should be made out of nothing, as everyone will see for himself, after a little reflection.

Prop. XXI. *No one can desire to be blessed, to act rightly, and to live rightly, without at the same time wishing to be, act, and to live—in other words, to actually exist.*

Proof.—The proof of this proposition, or rather the proposition itself, is self-evident, and is also plain from the definition of desire. For the desire of living, acting, &c., blessedly or rightly, is (Def. of the Emotions, i.) the essence of man—that is (III. vii.), the endeavour made by everyone to preserve his own being. Therefore, no one can desire, &c. *Q.E.D.*

Prop. XXII. *No virtue can be conceived as prior to this endeavour to preserve one's own being.*

Proof.—The effort for self-preservation is the essence of a thing (III. vii.); therefore, if any virtue could be conceived as prior thereto, the essence of a thing would have to be conceived as prior to itself, which is obviously absurd. Therefore no virtue, &c. *Q.E.D.*

Corollary.—The effort for self-preservation is the first and only foundation of virtue. For prior to this principle nothing can be conceived, and without it no virtue can be conceived.

Prop. XXIII. *Man, in so far as he is determined to a particular action because he has inadequate ideas, cannot be absolutely said to act in obedience to virtue; he can only be so described, in so far as he is determined for the action because he understands.*

Proof.—In so far as a man is determined to an action through having inadequate ideas, he is passive (III. i.), that is (III. Deff. i., and iii.), he does something, which cannot be perceived solely through his essence, that is (by IV. Def. viii.), which does not follow from his virtue. But, in so far as he is determined for an action because he understands, he is active; that is, he does something, which is perceived through his essence alone, or which adequately follows from his virtue. *Q.E.D.*

Prop. XXIV. *To act absolutely in obedience to virtue is in us the same thing as to act, to live, or to preserve one's being (these three terms are identical in meaning) in accordance with the dictates of reason on the basis of seeking what is useful to one's self.*

Proof.—To act absolutely in obedience to virtue is nothing else but to act according to the laws of one's own nature. But we only act, in so far as we understand (III. iii.) : therefore to act in obedience to virtue is in us nothing else but to act, to live, or to preserve one's being in obedience to reason, and that on the basis of seeking what is useful for us (IV. xxii. Coroll.). *Q.E.D.*

Prop. XXV. *No one wishes to preserve his being for the sake of anything else.*

Proof.—The endeavour, wherewith everything endeavours to persist in its being, is defined solely by the essence of the thing itself (III. vii.); from this alone, and not from the essence of anything else, it necessarily follows (III. vi.) that everyone endeavours to preserve his being. Moreover, this proposition is plain from IV. xxii. Coroll., for if a man should endeavour to preserve his being for the sake of anything else, the last-named thing would obviously be the basis of virtue, which, by the foregoing corollary, is absurd. Therefore no one, &c. *Q.E.D.*

Prop. XXVI. *Whatsoever we endeavour in obedience to reason is nothing further than to understand; neither does the mind, in so far as it makes use of reason, judge anything to be useful to it, save such things as are conducive to understanding.*

Proof.—The effort for self-preservation is nothing else but the essence of the thing in question (III. vii.), which, in so far as it exists such as it is, is conceived to have force for continuing in existence (III. vi.) and doing such things as necessarily follow from its given nature (see the Def. of Appetite, III. ix. note). But the essence of reason is nought else but our mind, in so far as it clearly and distinctly understands (see the definition in II. xl. note. ii.); therefore (II. xl.) whatsoever we endeavour in obedience to reason is nothing else but to understand. Again, since this effort of the mind wherewith the mind endeavours, in so far as it reasons, to preserve its own being is nothing else but understanding; this effort at understanding is (IV. xxii. Coroll.) the first and single basis of virtue, nor shall we

endeavour to understand things for the sake of any ulterior object (IV. xxv.); on the other hand, the mind, in so far as it reasons, will not be able to conceive any good for itself, save such things as are conducive to understanding.

Prop. XXVII. *We know nothing to be certainly good or evil, save such things as really conduce to understanding, or such as are able to hinder us from understanding.*

Proof.—The mind, in so far as it reasons, desires nothing beyond understanding, and judges nothing to be useful to itself, save such things as conduce to understanding (by the foregoing Prop.). But the mind (II. xli., xliii. and note) cannot possess certainty concerning anything, except in so far as it has adequate ideas, or (what by II. xl. note, is the same thing) in so far as it reasons. Therefore we know nothing to be good or evil save such things as really conduce, &c. *Q.E.D.*

Prop. XXVIII. *The mind's highest good is the knowledge of God, and the mind's highest virtue is to know God.*

Proof.—The mind is not capable of understanding anything higher than God, that is (I. Def. vi.), than a Being absolutely infinite, and without which (I. xv.) nothing can either be or be conceived; therefore (IV. xxvi. and xxvii.), the mind's highest utility or (IV. Def. i.) good is the knowledge of God. Again, the mind is active, only in so far as it understands, and only to the same extent can it be said absolutely to act virtuously. The mind's absolute virtue is therefore to understand. Now, as we have already shown, the highest that the mind can understand is God; therefore the highest virtue of the mind is to understand or to know God. *Q.E.D.*

Prop. XXIX. *No individual thing, which is entirely different from our own nature, can help or check our power of activity, and absolutely nothing can do us good or harm, unless it has something in common with our nature.*

Proof.—The power of every individual thing, and consequently the power of man, whereby he exists and operates, can only be determined by an individual thing (I. xxviii.), whose nature (II. vi.) must be understood through the same nature as that, through which human nature is conceived. Therefore our power of activity, however it be conceived, can be determined and consequently helped or hindered by the power of any other individual thing, which has something in common with us, but not by the power of anything, of which the nature is entirely different from our own; and since we call good or evil that which is the cause of pleasure or pain (IV. viii.), that is (III. xi. note), which increases or diminishes, helps or hinders, our power of activity; therefore, that which is entirely different from our nature can neither be to us good nor bad. *Q.E.D.*

Prop. XXX. *A thing cannot be bad for us through the quality which it has in common with our nature, but it is bad for us in so far as it is contrary to our nature.*

Proof.—We call a thing bad when it is the cause of pain (IV. viii.), that is (by the Def., which see in III. xi. note), when it diminishes or checks our power of action. Therefore, if anything were bad for us through that quality which it has in common with our nature, it would be able itself to diminish or check that which it has in common with our nature, which (III. iv.) is absurd. Wherefore nothing can be bad for us through that quality which it has in common with us, but, on the other hand, in so far as it is bad for us, that is (as we have just shown), in so far as it can diminish or check our power of action, it is contrary to our nature. *Q.E.D.*

Prop. XXXI. *In so far as a thing is in harmony with our nature, it is necessarily good.*

Proof.—In so far as a thing is in harmony with our nature, it cannot be bad for it. It will therefore necessarily be either good or indifferent. If it be assumed that it be neither good nor bad, nothing will follow from its nature (IV. Def. i.), which tends to the preservation of our nature, that is (by the hypothesis), which tends to the preservation of the thing itself; but this (III. vi.) is absurd; therefore, in so far as a thing is in harmony with our nature, it is necessarily good. *Q.E.D.*

Corollary.—Hence it follows, that, in proportion as a thing is in harmony with our nature, so is it more useful or better for us, and vice versâ, in proportion as a thing is more useful for us, so is it more in harmony with our nature. For, in so far as it is not in harmony with our nature, it will necessarily be different therefrom or contrary thereto. If different, it can neither be good nor bad (IV. xxix.); if contrary, it will be contrary to that which is in harmony with our nature, that is, contrary to what is good—in short, bad. Nothing, therefore, can be good, except in so far as it is in

harmony with our nature; and hence a thing is useful, in proportion as it is in harmony with our nature, and vice versa. *Q.E.D.*

Prop. XXXII. *In so far as men are a prey to passion, they cannot, in that respect, be said to be naturally in harmony.*

Proof.—Things, which are said to be in harmony naturally, are understood to agree in power (III. vii.), not in want of power or negation, and consequently not in passion (III. iii. note); wherefore men, in so far as they are a prey to their passions, cannot be said to be naturally in harmony. *Q.E.D.*

Note.—This is also self-evident; for, if we say that white and black only agree in the fact that neither is red, we absolutely affirm that they do not agree in any respect. So, if we say that a man and a stone only agree in the fact that both are finite—wanting in power, not existing by the necessity of their own nature, or, lastly, indefinitely surpassed by the power of external causes—we should certainly affirm that a man and a stone are in no respect alike; therefore, things which agree only in negation, or in qualities which neither possess, really agree in no respect.

Prop. XXXIII. *Men can differ in nature, in so far as they are assailed by those emotions, which are passions, or passive states; and to this extent one and the same man is variable and inconstant.*

Proof.—The nature or essence of the emotions cannot be explained solely through our essence or nature (III. Deff. i., ii.), but it must be defined by the power, that is (III. vii.), by the nature of external causes in comparison with our own; hence it follows, that there are as many kinds of each emotion as there are external objects whereby we are affected (III. lvi.), and that men may be differently affected by one and the same object (III. li.), and to this extent differ in nature; lastly, that one and the same man may be differently affected towards the same object, and may therefore be variable and inconstant. *Q.E.D.*

Prop. XXXIV. *In so far as men are assailed by emotions which are passions, they can be contrary one to another.*

Proof.—A man, for instance Peter, can be the cause of Paul's feeling pain, because he (Peter) possesses something similar to that which Paul hates (III. xvi.), or because Peter has sole possession of a thing which Paul also loves (III. xxxii. and note), or for other causes (of which the chief are enumerated in III. iv. note); it may therefore happen that Paul should hate Peter (Def. of Emotions, vii.), consequently it may easily happen also, that Peter should hate Paul in return, and that each should endeavour to do the other an injury, (III. xxxix.), that is (IV. xxx.), that they should be contrary one to another. But the emotion of pain is always a passion or passive state (III. lix.); hence men, in so far as they are assailed by emotions which are passions, can be contrary one to another. *Q.E.D.*

Note.—I said that Paul may hate Peter, because he conceives that Peter possesses something which he (Paul) also loves; from this it seems, at first sight, to follow, that these two men, through both loving the same thing, and, consequently, through agreement of their respective natures, stand in one another's way; if this were so, Props. xxx. and xxxi. of this part would be untrue. But if we give the matter our unbiased attention, we shall see that the discrepancy vanishes. For the two men are not in one another's way in virtue of the agreement of their natures, that is, through both loving the same thing, but in virtue of one differing from the other. For, in so far as each loves the same thing, the love of each is fostered thereby (III. xxxi.), that is (Def. of the Emotions, vi.) the pleasure of each is fostered thereby. Wherefore it is far from being the case, that they are at variance through both loving the same thing, and through the agreement in their natures. The cause for their opposition lies, as I have said, solely in the fact that they are assumed to differ. For we assume that Peter has the idea of the loved object as already in his possession, while Paul has the idea of the loved object as lost. Hence the one man will be affected with pleasure, the other will be affected with pain, and thus they will be at variance one with another. We can easily show in like manner, that all other causes of hatred depend solely on differences, and not on the agreement between men's natures.

Prop. XXXV. *In so far only as men live in obedience to reason, do they always necessarily agree in nature.*

Proof.—In so far as men are assailed by emotions that are passions, they can be different in nature (IV. xxxiii.), and at variance one with another. But men are only said to be active, in so far as they act in obedience to reason (III. iii.); therefore, what so ever follows from human nature in so far as it is defined by reason must (III. Def. ii.) be

understood solely through human nature as its proximate cause. But, since every man by the laws of his nature desires that which he deems good, and endeavours to remove that which he deems bad (IV. xix.); and further, since that which we, in accordance with reason, deem good or bad, necessarily is good or bad (II. xli.); it follows that men, in so far as they live in obedience to reason, necessarily do only such things as are necessarily good for human nature, and consequently for each individual man (IV. xxxi. Coroll.); in other words, such things as are in harmony with each man's nature. Therefore, men in so far as they live in obedience to reason, necessarily live always in harmony one with another. *Q.E.D.*

Corollary I.—There is no individual thing in nature, which is more useful to man, than a man who lives in obedience to reason. For that thing is to man most useful, which is most in harmony with his nature (IV. xxxi. Coroll.) ; that is, obviously, man. But man acts absolutely according to the laws of his nature, when he lives in obedience to reason (III. Def. ii.), and to this extent only is always necessarily in harmony with the nature of another man (by the last Prop.) ; wherefore among individual things nothing is more useful to man, than a man who lives in obedience to reason. *Q.E.D.*

Corollary II.—As every man seeks most that which is useful to him, so are men most useful one to another. For the more a man seeks what is useful to him and endeavours to preserve himself, the more is he endowed with virtue (IV. xx.), or, what is the same thing (IV. Def. viii.), the more is he endowed with power to act according to the laws of his own nature, that is to live in obedience to reason. But men are most in natural harmony, when they live in obedience to reason (by the last Prop.) ; therefore (by the foregoing Coroll.) men will be most useful one to another, when each seeks most that which is useful to him. *Q.E.D.*

Note.—What we have just shown is attested by experience so conspicuously, that it is in the mouth of nearly everyone: "Man is to man a God." Yet it rarely happens that men live in obedience to reason, for things are so ordered among them, that they are generally envious and troublesome one to another. Nevertheless they are scarcely able to lead a solitary life, so that the definition of man as a social animal has met with general assent; in fact, men do derive from social life much more convenience than injury. Let satirists then laugh their fill at human affairs, let theologians rail, and let misanthropes praise to their utmost the life of untutored rusticity, let them heap contempt on men and praises on beasts; when all is said, they will find that men can provide for their wants much more easily by mutual help, and that only by uniting their forces can they escape from the dangers that on every side beset them: not to say how much more excellent and worthy of our knowledge it is, to study the actions of men than the actions of beasts. But I will treat of this more at length elsewhere.

Prop. XXXVI. *The highest good of those who follow virtue is common to all, and therefore all can equally rejoice therein.*

Proof.—To act virtuously is to act in obedience with reason (IV. xxiv.), and whatsoever we endeavour to do in obedience to reason is to understand (IV. xxvi.) ; therefore (IV. xxviii.) the highest good for those who follow after virtue is to know God; that is (II. xlvi. and note) a good which is common to all and can be possessed. by all men equally, in so far as they are of the same nature. *Q.E.D.* '

Note.—Someone may ask how it would be, if the highest good of those who follow after virtue were not common to all? Would it not then follow, as above (IV. xxxiv.), that men living in obedience to reason, that is (IV. xxxv.), men in so far as they agree in nature, would be at variance one with another? To such an inquiry, I make answer, that it follows not accidentally but from the very nature of reason, that man's highest good is common to all, inasmuch as it is deduced from the very essence of man, in so far as defined by reason; and that a man could neither be, nor be conceived without the power of taking pleasure in this highest good. For it belongs to the essence of the human mind (II. xlvi.), to have an adequate knowledge of the eternal and infinite essence of God.

Prop. XXXVII. *The good which every man, who follows after virtue, desires for himself he will also desire for other men, and so much the more, in proportion as he has a greater knowledge of God.*

Proof.—Men, in so far as they live in obedience to reason, are most useful to their fellow men (IV. xxxv.; Coroll. i.); therefore (IV. xix.), we shall in obedience to reason necessarily endeavour to bring about that men should live in

obedience to reason. But the good which every man, in so far as he is guided by reason, or, in other words, follows after virtue, desires for himself, is to understand (IV. xxvi.); wherefore the good, which each follower of virtue seeks for himself, he will desire also for others. Again, desire, in so far as it is referred to the mind, is the very essence of the mind (Def. of the Emotions, i.); now the essence of the mind consists in knowledge (II. xi.), which involves the knowledge of God (II. xlvi.), and without it (I. xv.), can neither be, nor be conceived; therefore, in proportion as the mind's essence involves a greater knowledge of God, so also will be greater the desire of the follower of virtue, that other men should possess that which he seeks as good for himself. *Q.E.D.*

Another Proof.—The good, which a man desires for himself and loves, he will love more constantly, if he sees that others love it also (III. xxxi.) ; he will therefore endeavour that others should love it also; and as the good in question is common to all, and therefore all can rejoice therein, he will endeavour, for the same reason, to bring about that all should rejoice therein, and this he will do the more (III. xxxvii.), in proportion as his own enjoyment of the good is greater.

Note I.—He who, guided by emotion only, endeavours to cause others to love what he loves himself, and to make the rest of the world live according to his own fancy, acts solely by impulse, and is, therefore, hateful, especially, to those who take delight in something different, and accordingly study and, by similar impulse, endeavour, to make men live in accordance with what pleases themselves. Again, as the highest good sought by men under the guidance of emotion is often such, that it can only be possessed by a single individual, it follows that those who love it are not consistent in their intentions, but, while they delight to sing its praises, fear to be believed. But he, who endeavours to lead men by reason, does not act by impulse but courteously and kindly, and his intention is always consistent. Again, whatsoever we desire and do, whereof we are the cause in so far as we possess the idea of God, or know God, I set down to Religion. The desire of well-doing, which is engendered by a life according to reason, I call piety. Further, the desire, whereby a man living according to reason is bound to associate others with himself in friendship, I call honour^[13]; by honourable I mean that which is praised by men living according to reason, and by base I mean that which is repugnant to the gaining of friendship. I have also shown in addition what are the foundations of a state; and the difference between true virtue and infirmity may be readily gathered from what I have said; namely, that true virtue is nothing else but living in accordance with reason; while infirmity is nothing else but man's allowing himself to be led by things which are external to himself, and to be by them determined to act in a manner demanded by the general disposition of things rather than by his own nature considered solely in itself.

Such are the matters which I engaged to prove in Prop. xviii. of this Part, whereby it is plain that the law against the slaughtering of animals is founded rather on vain superstition and womanish pity than on sound reason. The rational quest of what is useful to us further teaches us the necessity of associating ourselves with our fellow men, but not with beasts, or things, whose nature is different from our own; we have the same rights in respect to them as they have in respect to us. Nay, as everyone's right is defined by his virtue, or power, men have far greater rights over beasts than beasts have over men. Still I do not deny that beasts feel: what I deny is, that we may not consult our own advantage and use them as we please, treating them in the way which best suits us; for their nature is not like ours, and their emotions are naturally different from human emotions (III. lvii. note). It remains for me to explain what I mean by just and unjust, sin and merit. On these points see the following note.

Note II.—In the Appendix to Part I. I undertook to explain praise and blame, merit and sin, justice and injustice.

Concerning praise and blame I have spoken in III. xxix. note : the time has now come to treat of the remaining terms. But I must first say a few words concerning man in the state of nature and in society.

Every man exists by sovereign natural right, and, consequently, by sovereign natural right performs those actions which follow from the necessity of his own nature; therefore by sovereign natural right every man judges what is good and what is bad, takes care of his own advantage according to his own disposition (IV. xix. and IV. xx.), avenges the wrongs done to him (III. xl. Coroll. ii.), and endeavours to preserve that which he loves and to destroy that which he hates (III. xxviii.). Now, if men lived under the guidance of reason, everyone would remain in possession of this his right, without any injury being done to his neighbour (IV. xxxv. Coroll. i.). But seeing that they

are a prey to their emotions, which far surpass human power or virtue (IV. vi.), they are often drawn in different directions, and being at variance one with another (IV. xxxiii. xxxiv.), stand in need of mutual help (IV. xxxv. note). Wherefore, in order that men may live together in harmony, and may aid one another, it is necessary that they should forego their natural right, and, for the sake of security, refrain from all actions which can injure their fellow-men. The way in which this end can be obtained, so that men who are necessarily a prey to their emotions (IV. iv. Coroll.), inconstant, and diverse, should be able to render each other mutually secure, and feel mutual trust, is evident from IV. vii. and III. xxxix. It is there shown, that an emotion can only be restrained by an emotion stronger than, and contrary to itself, and that men avoid inflicting injury through fear of incurring a greater injury themselves.

On this law society can be established, so long as it keeps in its own hand the right, possessed by everyone, of avenging injury, and pronouncing on good and evil; and provided it also possesses the power to lay down a general rule of conduct, and to pass laws sanctioned, not by reason, which is powerless in restraining emotion, but by threats (IV. xvii. note). Such a society established with laws and the power of preserving itself is called a State, while those who live under its protection are called citizens. We may readily understand that there is in the state of nature nothing, which by universal consent is pronounced good or bad; for in the state of nature everyone thinks solely of his own advantage, and according to his disposition, with reference only to his individual advantage, decides what is good or bad, being bound by no law to anyone besides himself.

In the state of nature, therefore, sin is inconceivable; it can only exist in a state, where good and evil are pronounced on by common consent, and where everyone is bound to obey the State authority. Sin, then, is nothing else but disobedience, which is therefore punished by the right of the State only. Obedience, on the other hand, is set down as merit, inasmuch as a man is thought worthy of merit, if he takes delight in the advantages which a State provides.

Again, in the state of nature, no one is by common consent master of anything, nor is there anything in nature, which can be said to belong to one man rather than another: all things are common to all. Hence, in the state of nature, we can conceive no wish to render to every man his own, or to deprive a man of that which belongs to him; in other words, there is nothing in the state of nature answering to justice and injustice. Such ideas are only possible in a social state, when it is decreed by common consent what belongs to one man and what to another.

From all these considerations it is evident, that justice and injustice, sin and merit, are extrinsic ideas, and not attributes which display the nature of the mind. But I have said enough.

Prop. XXXVIII. *Whatsoever disposes the human body, so as to render it capable of being affected in an increased number of ways, or of affecting external bodies in an increased number of ways, is useful to man ; and is so, in proportion as the body is thereby rendered more capable of being affected or affecting other bodies in an increased number of ways ; contrariwise, whatsoever renders the body less capable in this respect is hurtful to man.*

Proof.—Whatsoever thus increases the capabilities of the body increases also the mind's capability of perception (II. xiv.) ; therefore, whatsoever thus disposes the body and thus renders it capable, is necessarily good or useful (IV. xxvi. xxvii.) ; and is so in proportion to the extent to which it can render the body capable ; contrariwise (II. xiv., IV. xxvi. xxvii.), it is hurtful, if it renders the body in this respect less capable. *Q.E.D.*

Prop. XXXIX. *Whatsoever brings about the preservation of the proportion of motion and rest, which the parts of the human body mutually possess, is good ; contrariwise, whatsoever causes a change in such proportion is bad.*

Proof.—The human body needs many other bodies for its preservation (II. Post. iv.). But that which constitutes the specific reality (*forma*) of a human body is, that its parts communicate their several motions one to another in a certain fixed proportion (Def. before Lemma iv. after II. xiii.). Therefore, whatsoever brings about the preservation of the proportion between motion and rest, which the parts of the human body mutually possess, preserves the specific reality of the human body, and consequently renders the human body capable of being affected in many ways and of affecting external bodies in many ways ; consequently it is good (by the last Prop.). Again, whatsoever brings about a change in the aforesaid proportion causes the human body to assume another specific character, in other words (see Preface to this Part towards the end, though the point is indeed self-evident), to be destroyed, and consequently totally incapable of being affected in an increased numbers of ways ; therefore it is bad. *Q.E.D.*

Note.—The extent to which such causes can injure or be of service to the mind will be explained in the Fifth Part. But I would here remark that I consider that a body undergoes death, when the proportion of motion and rest which obtained mutually among its several parts is changed. For I do not venture to deny that a human body, while keeping the circulation of the blood and other properties, wherein the life of a body is thought to consist, may none the less be changed into another nature totally different from its own. There is no reason, which compels me to maintain that a body does not die, unless it becomes a corpse ; nay, experience would seem to point to the opposite conclusion. It sometimes happens, that a man undergoes such changes, that I should hardly call him the same. As I have heard tell of a certain Spanish poet, who had been seized with sickness, and though he recovered therefrom yet remained so oblivious of his past life, that he would not believe the plays and tragedies he had written to be his own : indeed, he might have been taken for a grown-up child, if he had also forgotten his native tongue. If this instance seems incredible, what shall we say of infants? A man of ripe age deems their nature so unlike his own, that he can only be persuaded that he too has been an infant by the analogy of other men. However, I prefer to leave such questions undiscussed, lest I should give ground to the superstitious for raising new issues.

Prop. XL. *Whatsoever conduces to man's social life, or causes men to live together in harmony, is useful, whereas whatsoever brings discord into a State is bad.*

Proof.—For whatsoever causes men to live together in harmony also causes them to live according to reason (IV. xxxv.), and is therefore (IV. xxvi. xxvii.) good, and (for the same reason) whatsoever brings about discord is bad. *Q.E.D.*

Prop. XLI. *Pleasure in itself is not bad but good : contrariwise, pain in itself is bad.*

Proof.—Pleasure (III. xi. and note) is emotion, whereby the body's power of activity is increased or helped ; pain is emotion, whereby the body's power of activity is diminished or checked ; therefore (IV. xxxviii.) pleasure in itself is good, &c. *Q.E.D.*

Prop. XLII. *Mirth cannot be excessive, but is always good ; contrariwise, Melancholy is always bad.*

Proof.—Mirth (see its Def. in III. xi. note) is pleasure, which, in so far as it is referred to the body, consists in all parts of the body being affected equally : that is (III. xi.), the body's power of activity is increased or aided in such a manner, that the several parts maintain their former proportion of motion and rest ; therefore Mirth is always good (IV. xxxix.), and cannot be excessive. But Melancholy (see its Def. in the same note to III. xi.) is pain, which, in so far as it is referred to the body, consists in the absolute decrease or hindrance of the body's power of activity ; therefore (IV. xxxviii.) it is always bad. *Q.E.D.*

Prop. XLIII. *Stimulation may be excessive and bad ; on the other hand, grief may be good, in so far as stimulation or pleasure is bad.*

Proof.—Localized pleasure or stimulation (*tiillatio*) is pleasure, which, in so far as it is referred to the body, consists in one or some of its parts being affected more than the rest (see its Definition, III. xi. note) ; the power of this emotion may be sufficient to overcome other actions of the body (IV. vi.), and may remain obstinately fixed therein, thus rendering it incapable of being affected in a variety of other ways : therefore (IV. xxxviii.) it may be bad. Again, grief, which is pain, cannot as such be good (IV. xli.). But, as its force and increase is defined by the power of an external cause compared with our own (IV. v.), we can conceive infinite degrees and modes of strength in this emotion (IV. iii.) ; we can, therefore, conceive it as capable of restraining stimulation, and preventing its becoming excessive, and hindering the body's capabilities ; thus, to this extent, it will be good. *Q.E.D.*

Prop. XLIV. *Love and desire may be excessive.*

Proof.—Love is pleasure, accompanied by the idea of an external cause (Def. of Emotions, vi.) ; therefore stimulation, accompanied by the idea of an external cause is love (III. xi. note) ; hence love maybe excessive. Again, the strength of desire varies in proportion to the emotion from which it arises (III. xxxvii.). Now emotion may overcome all the rest of men's actions (IV. vi.) ; so, therefore, can desire, which arises from the same emotion, overcome all other desires, and become excessive, as we showed in the last proposition concerning stimulation.

Note.—Mirth, which I have stated to be good, can be conceived more easily than it can be observed. For the emotions, whereby we are daily assailed, are generally referred to some part of the body which is affected more than the rest ; hence the emotions are generally excessive, and so fix the mind in the contemplation of one object, that it is unable to think of others ; and although men, as a rule, are a prey to many emotions-and very few are found who are always assailed by one and the same-yet there are cases, where one and the same emotion remains obstinately fixed. We sometimes see men so absorbed in one object, that, although it be not present, they think they have it before them ; when this is the case with a man who is not asleep, we say he is delirious or mad ; nor are those persons who are inflamed with love, and who dream all night and all day about nothing but their mistress, or some woman, considered as less mad, for they are made objects of ridicule. But when a miser thinks of nothing but gain or money, or when an ambitious man thinks of nothing but glory, they are not reckoned to be mad, because they are generally harmful, and are thought worthy of being hated. But, in reality, Avarice, Ambition, Lust, &c., are species of madness, though they may not be reckoned among diseases.

Prop. XLV. *Hatred can never be good.*

Proof.—When we hate a man, we endeavour to destroy him (III. xxxix.), that is (IV. xxxvii.), we endeavour to do something that is bad. Therefore, &c. *Q.E.D.*

N.B. Here, and in what follows, I mean by hatred only hatred towards men.

Corollary I.—Envy, derision, contempt, anger, revenge, and other emotions attributable to hatred, or arising therefrom, are bad ; this is evident from III. xxxix. and IV. xxxvii.

Corollary II.—Whatsoever we desire from motives of hatred is base, and in a State unjust. This also is evident from III. xxxix., and from the definitions of baseness and injustice in IV. xxxvii. note.

Note.—Between derision (which I have in Coroll. I. stated to be bad) and laughter I recognize a great difference. For laughter, as also jocularity, is merely pleasure ; therefore, so long as it be not excessive, it is in itself good (IV. xli.). Assuredly nothing forbids man to enjoy himself, save grim and gloomy superstition. For why is it more lawful to satiate one's hunger and thirst than to drive away one's melancholy? I reason, and have convinced myself as follows : No deity, nor anyone else, save the envious, takes pleasure in my infirmity and discomfort, nor sets down to my virtue the tears, sobs, fear, and the like, which are signs of infirmity of spirit ; on the contrary, the greater the pleasure wherewith we are affected, the greater the perfection whereto we pass ; in other words, the more must we necessarily partake of the divine nature. Therefore, to make use of what comes in our way, and to enjoy it as much as possible (not to the point of satiety, for that would not be enjoyment) is the part of a wise man. I say it is the part of a wise man to refresh and recreate himself with moderate and pleasant food and drink, and also with perfumes, with the soft beauty of growing plants, with dress, with music, with many sports, with theatres, and the like, such as every man may make use of without injury to his neighbour. For the human body is composed of very numerous parts, of diverse nature, which continually stand in need of fresh and varied nourishment, so that the whole body may be equally capable of performing all the actions, which follow from the necessity of its own nature ; and, consequently, so that the mind may also be equally capable of understanding many things simultaneously. This way of life, then, agrees best with our principles, and also with general practice ; therefore, if there be any question of another plan, the plan we have mentioned is the best, and in every way to be commended. There is no need for me to set forth the matter more clearly or in more detail.

Prop. XLVI. *He, who lives under the guidance of reason, endeavours, as far as possible, to render back love, or kindness, for other men's hatred, anger, contempt, &c., towards him.*

Proof.—All emotions of hatred are bad (IV. xlv. Coroll. i.) ; therefore he who lives under the guidance of reason will endeavour, as far as possible, to avoid being assailed by such emotions (IV. xix.) ; consequently, he will also endeavour to prevent others being so assailed (IV. xxxvii.). But hatred is increased by being reciprocated, and can be quenched by love (III. xliii.), so that hatred may pass into love (III. xliv.) ; therefore he who lives under the guidance of reason will endeavour to repay hatred with love, that is, with kindness. *Q.E.D.*

Note.—He who chooses to avenge wrongs with hatred is assuredly wretched. But he, who strives to conquer hatred with love, fights his battle in joy and confidence ; he withstands many as easily as one, and has very little need of fortune's aid. Those whom he vanquishes yield joyfully, not through failure, but through increase in their powers ; all these consequences follow so plainly from the mere definitions of love and understanding, that I have no need to prove them in detail.

Prop. XLVII. *Emotions of hope and fear cannot be in themselves good.*

Proof.—Emotions of hope and fear cannot exist without pain. For fear is pain (Def. of the Emotions, xiii.), and hope (Def. of the Emotions, Explanation xii. and xiii.) cannot exist without fear ; therefore (IV. xli.) these emotions cannot be good in themselves, but only in so far as they can restrain excessive pleasure (IV. xliii.). *Q.E.D.*

Note.—We may add, that these emotions show defective knowledge and an absence of power in the mind ; for the same reason confidence, despair, joy, and disappointment are signs of a want of mental power. For although confidence and joy are pleasurable emotions, they nevertheless imply a preceding pain, namely, hope and fear. Wherefore the more we endeavour to be guided by reason, the less do we depend on hope ; we endeavour to free ourselves from fear, and, as far as we can, to dominate fortune, directing our actions by the sure counsels of wisdom.

Prop. XLVIII. *The emotions of over-esteem and disparagement are always bad.*

Proof.—These emotions (see Def. of the Emotions, xxi. xxii.) are repugnant to reason ; and are therefore (IV. xxvi. xxvii.) bad. *Q.E.D.*

Prop. XLIX. *Over-esteem is apt to render its object proud.*

Proof.—If we see that any one rates us too highly, for love's sake, we are apt to become elated (III. xli.), or to be pleasurable affected (Def. of the Emotions, xxx.) ; the good which we hear of ourselves we readily believe (III. xxv.) ; and therefore, for love's sake, rate ourselves too highly ; in other words, we are apt to become proud. *Q.E.D.*

Prop. L. *Pity, in a man who lives under the guidance of reason, is in itself bad and useless.*

Proof.—Pity (Def. of the Emotions, xviii.) is a pain, and therefore (IV. xli.) is in itself bad. The good effect which follows, namely, our endeavour to free the object of our pity from misery, is an action which we desire to do solely at the dictation of reason (IV. xxxvii.) ; only at the dictation of reason are we able to perform any action, which we know for certain to be good (IV. xxvii.) ; thus, in a man who lives under the guidance of reason, pity in itself is useless and bad. *Q.E.D.*

Note.—He who rightly realizes, that all things follow from the necessity of the divine nature, and come to pass in accordance with the eternal laws and rules of nature, will not find anything worthy of hatred, derision, or contempt, nor will he bestow pity on anything, but to the utmost extent of human virtue he will endeavour to do well, as the saying is, and to rejoice. We may add, that he, who is easily touched with compassion, and is moved by another's sorrow or tears, often does something which he afterwards regrets ; partly because we can never be sure that an action caused by emotion is good, partly because we are easily deceived by false tears. I am in this place expressly speaking of a man living under the guidance of reason. He who is moved to help others neither by reason nor by compassion, is rightly styled inhuman, for (III. xxvii.) he seems unlike a man.

Prop. LI. *Approval is not repugnant to reason, but can agree therewith and arise therefrom.*

Proof.—Approval is love towards one who has done good to another (Def. of the Emotions, xix.) ; therefore it may be referred to the mind, in so far as the latter is active (III. lix.), that is (III. iii.), in so far as it understands ; therefore, it is in agreement with reason, &c. *Q.E.D.*

Another Proof.—He, who lives under the guidance of reason, desires for others the good which he seeks for himself (IV. xxxvii.) ; wherefore from seeing someone doing good to his fellow his own endeavour to do good is aided ; in other words, he will feel pleasure (III. xi. note) accompanied by the idea of the benefactor. Therefore he approves of him. *Q.E.D.*

Note.—Indignation as we defined it (Def. of the Emotions, xx.) is necessarily evil (IV. xlv.) ; we may, however, remark that, when the sovereign power for the sake of preserving peace punishes a citizen who has injured another, it should not be said to be indignant with the criminal, for it is not incited by hatred to ruin him, it is led by a sense of duty to punish him.

Prop. LII. *Self-approval may arise from reason, and that which arises from reason is the highest possible.*

Proof.—Self-approval is pleasure arising from a man's contemplation of himself and his own power of action (Def. of the Emotions, xxv.). But a man's true power of action or virtue is reason herself (III. iii.), as the said man clearly and distinctly contemplates her (II. xl. xliii.) ; therefore self-approval arises from reason. Again, when a man is contemplating himself, he only perceived clearly and distinctly or adequately, such things as follow from his power of action (III. Def. ii.), that is (III. iii.), from his power of understanding ; therefore in such contemplation alone does the highest possible self-approval arise. *Q.E.D.*

Note.—Self-approval is in reality the highest object for which we can hope. For (as we showed in IV. xxv.) no one endeavours to preserve his being for the sake of any ulterior object, and, as this approval is more and more fostered and strengthened by praise (III. liii. Coroll.), and on the contrary (III. lv. Coroll.) is more and more disturbed by blame, fame becomes the most powerful of incitements to action, and life under disgrace is almost unendurable.

Prop. LIII. *Humility is not a virtue, or does not arise from reason.*

Proof.—Humility is pain arising from a man's contemplation of his own infirmities (Def. of the Emotions, xxvi.). But, in so far as a man knows himself by true reason, he is assumed to understand his essence, that is, his power (III. vii.). Wherefore, if a man in self-contemplation perceives any infirmity in himself, it is not by virtue of his understanding himself, but (III. lv.) by virtue of his power of activity being checked. But, if we assume that a man perceives his own infirmity by virtue of understanding something stronger than himself, by the knowledge of which he determines his own power of activity, this is the same as saying that we conceive that a man understands himself distinctly (IV. xxvi.), because^[14] his power of activity is aided. Wherefore humility, or the pain which arises from a man's contemplation of his own infirmity, does not arise from the contemplation or reason, and is not a virtue but a passion. *Q.E.D.*

Prop. LIV. *Repentance is not a virtue, or does not arise from reason ; but he who repents of an action is doubly wretched or infirm.*

Proof.—The first part of this proposition is proved like the foregoing one. The second part is proved from the mere definition of the emotion in question (Def. of the Emotions, xxvii.). For the man allows himself to be overcome, first, by evil desires ; secondly, by pain.

Note.—As men seldom live under the guidance of reason, these two emotions, namely, Humility and Repentance, as also Hope and Fear, bring more good than harm ; hence, as we must sin, we had better sin in that direction. For, if all men who are a prey to emotion were all equally proud, they would shrink from nothing, and would fear nothing ; how then could they be joined and linked together in bonds of union? The crowd plays the tyrant, when it is not in fear ; hence we need not wonder that the prophets, who consulted the good, not of a few, but of all, so strenuously commended Humility, Repentance, and Reverence. Indeed those who are a prey to these emotions may be led much more easily than others to live under the guidance of reason, that is, to become free and to enjoy the life of the blessed.

Prop. LV. *Extreme pride or dejection indicates extreme ignorance of self.*

Proof.—This is evident from Def. of the Emotions, xxviii. and xxix.

Prop. LVI. *Extreme pride or dejection indicates extreme infirmity of spirit.*

Proof.—The first foundation of virtue is self-preservation (IV. xxii. Coroll.) under the guidance of reason (IV. xxiv.). He, therefore, who is ignorant of himself, is ignorant of the foundation of all virtues, and consequently of all virtues. Again, to act virtuously is merely to act under the guidance of reason (IV. xxiv.) : now he, that acts under the guidance of reason, must necessarily know that he so acts (II. xliii.). Therefore he who is in extreme ignorance of

himself, and consequently of all virtues, acts least in obedience to virtue ; in other words (IV. Def. viii.), is most infirm of spirit. Thus extreme pride or dejection indicates extreme infirmity of spirit. *Q.E.D.*

Corollary.—Hence it most clearly follows, that the proud and the dejected specially fall a prey to the emotions.

Note.—Yet dejection can be more easily corrected than pride ; for the latter being a pleasurable emotion, and the former a painful emotion, the pleasurable is stronger than the painful (IV. xviii.).

Prop. LVII. *The proud man delights in the company of flatterers and parasites, but hates the company of the high-minded.*

Proof.—Pride is pleasure arising from a man's over estimation of himself (Def. of the Emotions, xxviii. and vi.) ; this estimation the proud man will endeavour to foster by all the means in his power (III. xiii. note) ; he will therefore delight in the company of flatterers and parasites (whose character is too well known to need definition here), and will avoid the company of high-minded men, who value him according to his deserts. *Q.E.D.*

Note.—It would be too long a task to enumerate here all the evil results of pride, inasmuch as the proud are a prey to all the emotions, though to none of them less than to love and pity. I cannot, however, pass over in silence the fact, that a man may be called proud from his underestimation of other people ; and, therefore, pride in this sense may be defined as pleasure arising from the false opinion, whereby a man may consider himself superior to his fellows. The dejection, which is the opposite quality to this sort of pride, may be defined as pain arising from the false opinion, whereby a man may think himself inferior to his fellows. Such being the case, we can easily see that a proud man is necessarily envious (III. xli. note), and only takes pleasure in the company, who fool his weak mind to the top of his bent, and make him insane instead of merely foolish.

Though dejection is the emotion contrary to pride, yet is the dejected man very near akin to the proud man. For, inasmuch as his pain arises from a comparison between his own infirmity and other men's power or virtue, it will be removed, or, in other words, he will feel pleasure, if his imagination be occupied in contemplating other men's faults ; whence arises the proverb, "The unhappy are comforted by finding fellow-sufferers." Contrariwise, he will be the more pained in proportion as he thinks himself inferior to others ; hence none are so prone to envy as the dejected, they are specially keen in observing men's actions, with a view to fault-finding rather than correction, in order to reserve their praises for dejection, and to glory therein, though all the time with a dejected air. These effects follow as necessarily from the said emotion, as it follows from the nature of a triangle, that the three angles are equal to two right angles. I have already said that I call these and similar emotions bad, solely in respect to what is useful to man. The laws of nature have regard to nature's general order, whereof man is but a part. I mention this, in passing, lest any should think that I have wished to set forth the faults and irrational deeds of men rather than the nature and properties of things. For, as I said in the preface to the third Part, I regard human emotions and their properties as on the same footing with other natural phenomena. Assuredly human emotions indicate the power and ingenuity, of nature, if not of human nature, quite as fully as other things which we admire, and which we delight to contemplate. But I pass on to note those qualities in the emotions, which bring advantage to man, or inflict injury upon him.

Prop. LVIII. *Honour (gloria) is not repugnant to reason, but may arise therefrom.*

Proof.—This is evident from Def. of the Emotions, xxx., and also from the definition of an honourable man (IV. xxxvii. note. i.).

Note.—Empty honour, as it is styled, is self-approval, fostered only by the good opinion of the populace ; when this good opinion ceases there ceases also the self-approval, in other words, the highest object of each man's love (IV. lii. note) ; consequently, he whose honour is rooted in popular approval must, day by day, anxiously strive, act, and scheme in order to retain his reputation. For the populace is variable and inconstant, so that, if a reputation be not kept up, it quickly withers away. Everyone wishes to catch popular applause for himself, and readily represses the fame of others. The object of the strife being estimated as the greatest of all goods, each combatant is seized with a fierce desire to put down his rivals in every possible way, till he who at last comes out victorious is more proud of having done harm to others than of having done good to himself. This sort of honour, then, is really empty, being

nothing.

The points to note concerning shame may easily be inferred from what was said on the subject of mercy and repentance. I will only add that shame, like compassion, though not a virtue, is yet good, in so far as it shows, that the feeler of shame is really imbued with the desire to live honourably ; in the same way as suffering is good, as showing that the injured part is not mortified. Therefore, though a man who feels shame is sorrowful, he is yet more perfect than he, who is shameless, and has no desire to live honourably.

Such are the points which I undertook to remark upon concerning the emotions of pleasure and pain ; as for the desires, they are good or bad according as they spring from good or evil emotions. But all, in so far as they are engendered in us by emotions wherein the mind is passive, are blind (as is evident from what was said in IV. xliv. note), and would be useless, if men could easily, be induced to live by the guidance of reason only, as I will now briefly, show.

Prop. LIX. *To all the actions, whereto we are determined by emotion wherein the mind is passive ; we can be determined without emotion by reason.*

Proof.—To act rationally, is nothing else (III. iii. and Def. ii.) but to perform those actions, which follow from the necessity, of our nature considered in itself alone. But pain is bad, in so far as it diminishes or checks the power of action (IV. xli.) ; wherefore we cannot by pain be determined to any action, which we should be unable to perform under the guidance of reason. Again, pleasure is bad only in so far as it hinders a man's capability for action (IV. xli. xliii.) ; therefore to this extent we could not be determined by it to any action, which we could not perform under the guidance of reason. Lastly, pleasure, in so far as it is good, is in harmony with reason (for it consists in the fact that a man's capability for action is increased or aided) ; nor is the mind passive therein, except in so far as a man's power of action is not increased to the extent of affording him an adequate conception of himself and his actions (III. iii., and note).

Wherefore, if a man who is pleurably affected be brought to such a state of perfection, that he gains an adequate conception of himself and his own actions, he will be equally, nay more, capable of those actions, to which he is determined by emotion wherein the mind is passive. But all emotions are attributable to pleasure, to pain, or to desire (Def. of the Emotions, iv. explanation) ; and desire (Def. of the Emotions, i.) is nothing else but the attempt to act ; therefore, to all actions, &c. *Q.E.D.*

Another Proof.—A given action is called bad, in so far as it arises from one being affected by hatred or any evil emotion. But no action, considered in itself alone, is either good or bad (as we pointed out in the preface to Pt. IV.), one and the same action being sometimes good, sometimes bad ; wherefore to the action which is sometimes bad, or arises from some evil emotion, we may be led by reason (IV. xix.). *Q.E.D.*

Note.—An example will put this point in a clearer light. The action of striking, in so far as it is considered physically, and in so far as we merely look to the fact that a man raises his arm, clenches his fist, and moves his whole arm violently downwards, is a virtue or excellence which is conceived as proper to the structure of the human body. If, then, a man, moved by anger or hatred, is led to clench his fist or to move his arm, this result takes place (as we showed in Pt. II.), because one and the same action can be associated with various mental images of things ; therefore we may be determined to the performance of one and the same action by confused ideas, or by clear and distinct ideas. Hence it is evident that every desire which springs from emotion, wherein the mind is passive, would become useless, if men could be guided by reason. Let us now see why desire which arises from emotion, wherein the mind is passive, is called by us blind.

Prop. LX. *Desire arising from a pleasure or pain, that is not attributable to the whole body, but only to one or certain parts thereof, is without utility in respect to a man as a whole.*

Proof.—Let it be assumed, for instance, that A, a part of a body, is so strengthened by some external cause, that it prevails over the remaining parts (IV. vi.). This part will not endeavour to do away with its own powers, in order that the other parts of the body may perform its office ; for this it would be necessary for it to have a force or power of

doing away with its own powers, which (III. vi.) is absurd. The said part, and, consequently, the mind also, will endeavour to preserve its condition. Wherefore desire arising from a pleasure of the kind aforesaid has no utility in reference to a man as a whole. If it be assumed, on the other hand, that the part, A, be checked so that the remaining parts prevail, it may be proved in the same manner that desire arising from pain has no utility in respect to a man as a whole. *Q.E.D.*

Note.—As pleasure is generally (IV. xlv. note) attributed to one part of the body, we generally desire to preserve our being with out taking into consideration our health as a whole : to which it may be added, that the desires which have most hold over us (IV. ix.) take account of the present and not of the future.

Prop. LXI. *Desire which springs from reason cannot be excessive.*

Proof.—Desire (Def. of the Emotions, i.) considered absolutely is the actual essence of man, in so far as it is conceived as in any way determined to a particular activity by some given modification of itself. Hence desire, which arises from reason, that is (III. iii.), which is engendered in us in so far as we act, is the actual essence or nature of man, in so far as it is conceived as determined to such activities as are adequately conceived through man's essence only (III. Def. ii.). Now, if such desire could be excessive, human nature considered in itself alone would be able to exceed itself, or would be able to do more than it can, a manifest contradiction. Therefore, such desire cannot be excessive. *Q.E.D.*

Prop. LXII. *In so far as the mind conceives a thing under the dictates of reason, it is affected equally, whether the idea be of a thing future, past, or present.*

Proof.—Whatever the mind conceives under the guidance of reason, it conceives under the form of eternity or necessity (II. xlv. Coroll. ii.), and is therefore affected with the same certitude (II. xliii. and note). Wherefore, whether the thing be present, past, or future, the mind conceives it under the same necessity and is affected with the same certitude ; and whether the idea be of something present, past, or future, it will in all cases be equally true (II. xli.) ; that is, it will always possess the same properties of an adequate idea (II. Def. iv.) ; therefore, in so far as the mind conceives things under the dictates of reason, it is affected in the same manner, whether the idea be of a thing future, past, or present. *Q.E.D.*

Note.—If we could possess an adequate knowledge of the duration of things, and could determine by reason their periods of existence, we should contemplate things future with the same emotion as things present ; and the mind would desire as though it were present the good which it conceived as future ; consequently it would necessarily neglect a lesser good in the present for the sake of a greater good in the future, and would in no wise desire that which is good in the present but a source of evil in the future, as we shall presently show. However, we can have but a very inadequate knowledge of the duration of things (II. xxxi.) ; and the periods of their existence (II. xlv. note.) we can only determine by imagination, which is not so powerfully affected by the future as by the present. Hence such true knowledge of good and evil as we possess is merely abstract or general, and the judgment which we pass on the order of things and the connection of causes, with a view to determining what is good or bad for us in the present, is rather imaginary than real. Therefore it is nothing wonderful, if the desire arising from such knowledge of good and evil, in so far as it looks on into the future, be more readily checked than the desire of things which are agreeable at the present time. (Cf. IV. xvi.)

Prop. LXIII. *He who is led by fear, and does good in order to escape evil, is not led by reason.*

Proof.—All the emotions which are attributable to the mind as active, or in other words to reason, are emotions of pleasure and desire (III. lix.) ; therefore, he who is led by fear, and does good in order to escape evil, is not led by reason.

Note.—Superstitions persons, who know better how to rail at vice than how to teach virtue, and who strive not to guide men by reason, but so to restrain them that they would rather escape evil than love virtue, have no other aim but to make others as wretched as themselves ; wherefore it is nothing wonderful, if they be generally troublesome and odious to their fellow-men.

Corollary.—Under desire which springs from reason, we seek good directly, and shun evil indirectly.

Proof.—Desire which springs from reason can only spring from a pleasurable emotion, wherein the mind is not passive (III. lix.), in other words, from a pleasure which cannot be excessive (IV. lxi.), and not from pain ; wherefore this desire springs from the knowledge of good, not of evil (IV. viii.) ; hence under the guidance of reason we seek good directly and only by implication shun evil. *Q.E.D.*

Note.—This Corollary may be illustrated by the example of a sick and a healthy man. The sick man through fear of death eats what he naturally shrinks from, but the healthy man takes pleasure in his food, and thus gets a better enjoyment out of life, than if he were in fear of death, and desired directly to avoid it. So a judge, who condemns a criminal to death, not from hatred or anger but from love of the public well-being, is guided solely by reason.

Prop. LXIV. *The knowledge of evil is an inadequate knowledge.*

Proof.—The knowledge of evil (IV. viii.) is pain, in so far as we are conscious thereof. Now pain is the transition to a lesser perfection (Def. of the Emotions, iii.) and therefore cannot be understood through man's nature (III. vi., and vii.) ; therefore it is a passive state (III. Def. ii.) which (III. iii.) depends on inadequate ideas ; consequently the knowledge thereof (II. xxix.), namely, the knowledge of evil, is inadequate. *Q.E.D.*

Corollary.—Hence it follows that, if the human mind possessed only adequate ideas, it would form no conception of evil.

Prop. LXV. *Under the guidance of reason we should pursue the greater of two goods and the lesser of two evils.*

Proof.—A good which prevents our enjoyment of a greater good is in reality an evil ; for we apply the terms good and bad to things, in so far as we compare them one with another (see preface to this Part) ; therefore, evil is in reality a lesser good ; hence under the guidance of reason we seek or pursue only the greater good and the lesser evil. *Q.E.D.*

Corollary.—We may, under the guidance of reason, pursue the lesser evil as though it were the greater good, and we may shun the lesser good, which would be the cause of the greater evil. For the evil, which is here called the lesser, is really good, and the lesser good is really evil, wherefore we may seek the former and shun the latter. *Q.E.D.*

Prop. LXVI. *We may, under the guidance of reason, seek a greater good in the future in preference to a lesser good in the present, and we may seek a lesser evil in the present in preference to a greater evil in the future.*^[15]

Proof.—If the mind could have an adequate knowledge of things future, it would be affected towards what is future in the same way as towards what is present (IV. lxii.) ; wherefore, looking merely to reason, as in this proposition we are assumed to do, there is no difference, whether the greater good or evil be assumed as present, or assumed as future ; hence (IV. lxv.) we may seek a greater good in the future in preference to a lesser good in the present, &c. *Q.E.D.*

Corollary.—We may, under the guidance of reason, seek a lesser evil in the present, because it is the cause of a greater good in the future, and we may shun a lesser good in the present, because it is the cause of a greater evil in the future. This Corollary is related to the foregoing Proposition as the Corollary to IV. lxv. is related to the said IV. lxv.

Note.—If these statements be compared with what we have pointed out concerning the strength of the emotions in this Part up to Prop. xviii., we shall readily see the difference between a man, who is led solely by emotion or opinion, and a man, who is led by reason. The former, whether will or no, performs actions whereof he is utterly ignorant ; the latter is his own master and only performs such actions, as he knows are of primary importance in life, and therefore chiefly desires ; wherefore I call the former a slave, and the latter a free man, concerning whose disposition and manner of life it will be well to make a few observations.

Prop. LXVII. *A free man thinks of death least of all things ; and his wisdom is a meditation not of death but of life.*

Proof.—A free man is one who lives under the guidance of reason, who is not led by fear (IV. lxiii.), but who directly desires that which is good (IV. lxiii. Coroll.), in other words (IV. xxiv.), who strives to act, to live, and to

preserve his being on the basis of seeking his own true advantage ; wherefore such an one thinks of nothing less than of death, but his wisdom is a meditation of life. *Q.E.D.*

Prop. LXVIII. *If men were born free, they would, so long as they remained free, form no conception of good and evil.*

Proof.—I call free him who is led solely by reason ; he, therefore, who is born free, and who remains free, has only adequate ideas ; therefore (IV. lxiv. Coroll.) he has no conception of evil, or consequently (good and evil being correlative) of good. *Q.E.D.*

Note.—It is evident, from IV. iv., that the hypothesis of this Proposition is false and inconceivable, except in so far as we look solely to the nature of man, or rather to God ; not in so far as the latter is infinite, but only in so far as he is the cause of man's existence.

This, and other matters which we have already proved, seem to have been signified by Moses in the history of the first man. For in that narrative no other power of God is conceived, save that whereby he created man, that is the power wherewith he provided solely for man's advantage ; it is stated that God forbade man, being free, to eat of the tree of the knowledge of good and evil, and that, as soon as man should have eaten of it, he would straightway fear death rather than desire to live. Further, it is written that when man had found a wife, who was in entire harmony with his nature, he knew that there could be nothing in nature which could be more useful to him ; but that after he believed the beasts to be like himself, he straightway began to imitate their emotions (III. xxvii.), and to lose his freedom ; this freedom was afterwards recovered by the patriarchs, led by the spirit of Christ ; that is, by the idea of God, whereon alone it depends, that man may be free, and desire for others the good which he desires for himself, as we have shown above (IV. xxxvii.).

Prop. LXIX. *The virtue of a free man is seen to be as great, when it declines dangers, as when it overcomes them.*

Proof.—Emotion can only be checked or removed by an emotion contrary to itself, and possessing more power in restraining emotion (IV. vii.). But blind daring and fear are emotions, which can be conceived as equally great (IV. v. and iii.) : hence, no less virtue or firmness is required in checking daring than in checking fear (III. lix. note) ; in other words (Def. of the Emotions, xl. and xli.), the free man shows as much virtue, when he declines dangers, as when he strives to overcome them. *Q.E.D.*

Corollary.—The free man is as courageous in timely retreat as in combat ; or, a free man shows equal courage or presence of mind, whether he elect to give battle or to retreat.

Note.—What courage (*animositas*) is, and what I mean thereby, I explained in III. lix. note. By danger I mean everything, which can give rise to any evil, such as pain, hatred, discord, &c.

Prop. LXX. *The free man, who lives among the ignorant, strives, as far as he can, to avoid receiving favours from them.*

Proof.—Everyone judges what is good according to his disposition (III. xxxix. note) ; wherefore an ignorant man, who has conferred a benefit on another, puts his own estimate upon it, and, if it appears to be estimated less highly by the receiver, will feel pain (III. xlii.). But the free man only desires to join other men to him in friendship (IV. xxxvii.), not repaying their benefits with others reckoned as of like value, but guiding himself and others by the free decision of reason, and doing only such things as he knows to be of primary importance. Therefore the free man, lest he should become hateful to the ignorant, or follow their desires rather than reason, will endeavour, as far as he can, to avoid receiving their favours.

Note.—I say, as far as he can. For though men be ignorant, yet are they men, and in cases of necessity could afford us human aid, the most excellent of all things : therefore it is often necessary to accept favours from them, and consequently to repay such favours in kind ; we must, therefore, exercise caution in declining favours, lest we should have the appearance of despising those who bestow them, or of being, from avaricious motives, unwilling to requite them, and so give ground for offence by the very fact of striving to avoid it. Thus, in declining favours, we must look to the requirements of utility and courtesy.

Prop. LXXI. *Only free men are thoroughly grateful one to another.*

Proof.—Only free men are thoroughly useful one to another, and associated among themselves by the closest necessity of friendship (IV. xxxv., and Coroll. i.), only such men endeavour, with mutual zeal of love, to confer benefits on each other (IV. xxxvii.), and, therefore, only they are thoroughly grateful one to another. *Q.E.D.*

Note.—The goodwill, which men who are led by blind desire have for one another, is generally a bargaining or enticement, rather than pure goodwill. Moreover, ingratitude is not an emotion. Yet it is base, inasmuch as it generally shows, that a man is affected by excessive hatred, anger, pride, avarice, &c. He who, by reason of his folly, knows not how to return benefits, is not ungrateful, much less he who is not gained over by the gifts of a courtesan to serve her lust, or by a thief to conceal his thefts, or by any similar persons. Contrariwise, such an one shows a constant mind, inasmuch as he cannot by any gifts be corrupted, to his own or the general hurt.

Prop. LXXII. *The free man never acts fraudulently, but always in good faith.*

Proof.—If it be asked : What should a man's conduct be in a case where he could by breaking faith free himself from the danger of present death? Would not his plan of self-preservation completely persuade him to deceive? This may be answered by pointing out that, if reason persuaded him to act thus, it would persuade all men to act in a similar manner, in which case reason would persuade men not to agree in good faith to unite their forces, or to have laws in common, that is, not to have any general laws, which is absurd.

Prop. LXXIII. *The man, who is guided by reason, is more free in a State, where he lives under a general system of law, than in solitude, where he is independent.*

Proof.—The man, who is guided by reason, does not obey through fear (IV. lxiii.) : but, in so far as he endeavours to preserve his being according to the dictates of reason, that is (IV. lxvi. note), in so far as he endeavours to live in freedom, he desires to order his life according to the general good (IV. xxxvii.), and, consequently (as we showed in IV. xxxvii. note. ii.), to live according to the laws of his country. Therefore the free man, in order to enjoy greater freedom, desires to possess the general rights of citizenship. *Q.E.D.*

Note.—These and similar observations, which we have made on man's true freedom, may be referred to strength, that is, to courage and nobility of character (III. lix. note). I do not think it worth while to prove separately all the properties of strength ; much less need I show, that he that is strong hates no man, is angry with no man, envies no man, is indignant with no man, despises no man, and least of all things is proud. These propositions, and all that relate to the true way of life and religion, are easily proved from IV. xxxvii. and IV. xlvi. ; namely, that hatred should be overcome with love, and that every man should desire for others the good which he seeks for himself. We may also repeat what we drew attention to in the note to IV. l., and in other places ; namely, that the strong man has ever first in his thoughts, that all things follow from the necessity of the divine nature ; so that whatsoever he deems to be hurtful and evil, and whatsoever, accordingly, seems to him impious, horrible, unjust, and base, assumes that appearance owing to his own disordered, fragmentary, and confused view of the universe. Wherefore he strives before all things to conceive things as they really are, and to remove the hindrances to true knowledge, such as are hatred, anger, envy, derision, pride, and similar emotions, which I have mentioned above. Thus he endeavours, as we said before, as far as in him lies, to do good, and to go on his way rejoicing. How far human virtue is capable of attaining to such a condition, and what its powers may be, I will prove in the following Part.

Appendix

What have said in this Part concerning the right way of life has not been arranged, so as to admit of being seen at one view, but has been set forth piece-meal, according as I thought each Proposition could most readily be deduced from what preceded it. I propose, therefore, to rearrange my remarks and to bring them under leading heads.

I. All our endeavours or desires so follow from the necessity of our nature, that they can be understood either through it alone, as their proximate cause, or by virtue of our being a part of nature, which cannot be adequately conceived through itself without other individuals.

II. Desires, which follow from our nature in such a manner, that they can be understood through it alone, are those which are referred to the mind, in so far as the latter is conceived to consist of adequate ideas : the remaining desires are only referred to the mind, in so far as it conceives things inadequately, and their force and increase are generally defined not by the power of man, but by the power of things external to us : wherefore the former are rightly called actions, the latter passions, for the former always indicate our power, the latter, on the other hand, show our infirmity and fragmentary knowledge.

III. Our actions, that is, those desires which are defined by man's power or reason, are always good. The rest may be either good or bad.

IV. Thus in life it is before all things useful to perfect the understanding, or reason, as far as we can, and in this alone man's highest happiness or blessedness consists, indeed blessedness is nothing else but the contentment of spirit, which arises from the intuitive knowledge of God : now, to perfect the understanding is nothing else but to understand God, God's attributes, and the actions which follow from the necessity of his nature. Wherefore of a man, who is led by reason, the ultimate aim or highest desire, whereby he seeks to govern all his fellows, is that whereby he is brought to the adequate conception of himself and of all things within the scope of his intelligence.

V. Therefore, without intelligence there is not rational life : and things are only good, in so far as they aid man in his enjoyment of the intellectual life, which is defined by intelligence. Contrariwise, whatsoever things hinder man's perfecting of his reason, and capability to enjoy the rational life, are alone called evil.

VI. As all things whereof man is the efficient cause are necessarily good, no evil can befall man except through external causes ; namely, by virtue of man being a part of universal nature, whose laws human nature is compelled to obey, and to conform to in almost infinite ways.

VII. It is impossible, that man should not be a part of nature, or that he should not follow her general order ; but if he be thrown among individuals whose nature is in harmony with his own, his power of action will thereby be aided and fostered, whereas, if he be thrown among such as are but very little in harmony with his nature, he will hardly be able to accommodate himself to them without undergoing a great change himself.

VIII. Whatsoever in nature we deem to be evil, or to be capable of injuring our faculty for existing and enjoying the rational life, we may endeavour to remove in whatever way seems safest to us ; on the other hand, whatsoever we deem to be good or useful for preserving our being, and enabling us to enjoy the rational life, we may appropriate to our use and employ as we think best. Everyone without exception may, by sovereign right of nature, do whatsoever he thinks will advance his own interest.

IX. Nothing can be in more harmony with the nature of any given thing than other individuals of the same species ; therefore (cf. vii.) for man in the preservation of his being and the enjoyment of the rational life there is nothing more useful than his fellow-man who is led by reason. Further, as we know not anything among individual things which is more excellent than a man led by reason, no man can better display the power of his skill and disposition, than in so training men, that they come at last to live under the dominion of their own reason.

X. In so far as men are influenced by envy or any kind of hatred, one towards another, they are at variance, and are therefore to be feared in proportion, as they are more powerful than their fellows.

XI. Yet minds are not conquered by force, but by love and high-mindedness.

XII. It is before all things useful to men to associate their ways of life, to bind themselves together with such bonds as they think most fitted to gather them all into unity, and generally to do whatsoever serves to strengthen friendship.

XIII. But for this there is need of skill and watchfulness. For men are diverse (seeing that those who live under the guidance of reason are few), yet are they generally envious and more prone to revenge than to sympathy. No small force of character is therefore required to take everyone as he is, and to restrain one's self from imitating the emotions of others. But those who carp at mankind, and are more skilled in railing at vice than in instilling virtue, and who break rather than strengthen men's dispositions, are hurtful both to themselves and others. Thus many from too great impatience of spirit, or from misguided religious zeal, have preferred to live among brutes rather than

among men ; as boys or youths, who cannot peaceably endure the chidings of their parents, will enlist as soldiers and choose the hardships of war and the despotic discipline in preference to the comforts of home and the admonitions of their father : suffering any burden to be put upon them, so long as they may spite their parents.

XIV. Therefore, although men are generally governed in everything by their own lusts, yet their association in common brings many more advantages than drawbacks. Wherefore it is better to bear patiently the wrongs they may do us, and to strive to promote whatsoever serves to bring about harmony and friendship.

XV. Those things, which beget harmony, are such as are attributable to justice, equity, and honourable living. For men brook ill not only what is unjust or iniquitous, but also what is reckoned disgraceful, or that a man should slight the received customs of their society. For winning love those qualities are especially necessary which have regard to religion and piety (cf. IV. xxxvii. notes. i. ii. ; xlvi. note ; and lxxiii. note).

XVI. Further, harmony is often the result of fear : but such harmony is insecure. Further, fear arises from infirmity of spirit, and moreover belongs not to the exercise of reason : the same is true of compassion, though this latter seems to bear a certain resemblance to piety.

XVII. Men are also gained over by liberality, especially such as have not the means to buy what is necessary to sustain life. However, to give aid to every poor man is far beyond the power and the advantage of any private person. For the riches of any private person are wholly inadequate to meet such a call. Again, an individual man's resources of character are too limited for him to be able to make all men his friends. Hence providing for the poor is a duty, which falls on the State as a whole, and has regard only to the general advantage.

XVIII. In accepting favours, and in returning gratitude our duty must be wholly different (cf. IV. lxx. note ; lxxi. note).

XIX. Again, meretricious love, that is, the lust of generation arising from bodily beauty, and generally every sort of love, which owns anything save freedom of soul as its cause, readily passes into hate ; unless indeed, what is worse, it is a species of madness ; and then it promotes discord rather than harmony (cf. III. xxxi. Coroll.).

XX. As concerning marriage, it is certain that this is in harmony with reason, if the desire for physical union be not engendered solely by bodily beauty, but also by the desire to beget children and to train them up wisely ; and moreover, if the love of both, to wit, of the man and of the woman, is not caused by bodily beauty only, but also by freedom of soul.

XXI. Furthermore, flattery begets harmony ; but only by means of the vile offence of slavishness or treachery. None are more readily taken with flattery than the proud, who wish to be first, but are not.

XXII. There is in abasement a spurious appearance of piety and religion. Although abasement is the opposite to pride, yet is he that abases himself most akin to the proud (IV. lvii. note).

XXIII. Shame also brings about harmony, but only in such matters as cannot be hid. Further, as shame is a species of pain, it does not concern the exercise of reason.

XXIV. The remaining emotions of pain towards men are directly opposed to justice, equity, honour, piety, and religion ; and, although indignation seems to bear a certain resemblance to equity, yet is life but lawless, where every man may pass judgment on another's deeds, and vindicate his own or other men's rights.

XXV. Correctness of conduct (*modestia*), that is, the desire of pleasing men which is determined by reason, is attributable to piety (as we said in IV. xxxvii. note. i.). But, if it spring from emotion, it is ambition, or the desire whereby, men, under the false cloak of piety, generally stir up discords and seditions. For he who desires to aid his fellows either in word or in deed, so that they may together enjoy the highest good, he, I say, will before all things strive to win them over with love : not to draw them into admiration, so that a system may be called after his name, nor to give any cause for envy. Further, in his conversation he will shrink from talking of men's faults, and will be careful to speak but sparingly of human infirmity : but he will dwell at length on human virtue or power, and the way whereby it may be perfected. Thus will men be stirred not by fear, nor by aversion, but only by the emotion of joy, to endeavour, so far as in them lies, to live in obedience to reason.

XXVI. Besides men, we know of no particular thing in nature in whose mind we may rejoice, and whom we can associate with ourselves in friendship or any sort of fellowship ; therefore, whatsoever there be in nature besides man, a regard for our advantage does not call on us to preserve, but to preserve or destroy according to its various capabilities, and to adapt to our use as best we may.

XXVII. The advantage which we derive from things external to us, besides the experience and knowledge which we acquire from observing them, and from recombining their elements in different forms, is principally the preservation of the body ; from this point of view, those things are most useful which can so feed and nourish the body, that all its parts may rightly fulfil their functions. For, in proportion as the body is capable of being affected in a greater variety of ways, and of affecting external bodies in a great number of ways, so much the more is the mind capable of thinking (IV. xxxviii., xxxix.). But there seem to be very few things of this kind in nature ; wherefore for the due nourishment of the body we must use many foods of diverse nature. For the human body is composed of very many parts of different nature, which stand in continual need of varied nourishment, so that the whole body may be equally capable of doing everything that can follow from its own nature, and consequently that the mind also may be equally capable of forming many perceptions.

XXVIII. Now for providing these nourishments the strength of each individual would hardly suffice, if men did not lend one another mutual aid. But money has furnished us with a token for everything : hence it is with the notion of money, that the mind of the multitude is chiefly engrossed : nay, it can hardly conceive any kind of pleasure, which is not accompanied with the idea of money as cause.

XXIX. This result is the fault only of those, who seek money, not from poverty or to supply their necessary wants, but because they have learned the arts of gain, wherewith they bring themselves to great splendour. Certainly they nourish their bodies, according to custom, but scantily, believing that they lose as much of their wealth as they spend on the preservation of their body. But they who know the true use of money, and who fix the measure of wealth solely with regard to their actual needs, live content with little.

XXX. As, therefore, those things are good which assist the various parts of the body, and enable them to perform their functions ; and as pleasure consists in an increase of, or aid to, man's power, in so far as he is composed of mind and body ; it follows that all those things which bring pleasure are good. But seeing that things do not work with the object of giving us pleasure, and that their power of action is not tempered to suit our advantage, and, lastly, that pleasure is generally referred to one part of the body more than to the other parts ; therefore most emotions of pleasure (unless reason and watchfulness be at hand), and consequently the desires arising therefrom, may become excessive. Moreover we may add that emotion leads us to pay most regard to what is agreeable in the present, nor can we estimate what is future with emotions equally vivid. (IV. xliv. note, and lx. note.)

XXXI. Superstition, on the other hand, seems to account as good all that brings pain, and as bad all that brings pleasure. However, as we said above (IV. xlv. note), none but the envious take delight in my infirmity and trouble. For the greater the pleasure whereby we are affected, the greater is the perfection whereto we pass, and consequently the more do we partake of the divine nature : no pleasure can ever be evil, which is regulated by a true regard for our advantage. But contrariwise he, who is led by fear and does good only to avoid evil, is not guided by reason.

XXXII. But human power is extremely limited, and is infinitely surpassed by the power of external causes ; we have not, therefore, an absolute power of shaping to our use those things which are without us. Nevertheless, we shall bear with an equal mind all that happens to us in contravention to the claims of our own advantage, so long as we are conscious, that we have done our duty, and that the power which we possess is not sufficient to enable us to protect ourselves completely ; remembering that we are a part of universal nature, and that we follow her order. If we have a clear and distinct understanding of this, that part of our nature which is defined by intelligence, in other words the better part of ourselves, will assuredly acquiesce in what befalls us, and in such acquiescence will endeavour to persist. For, in so far as we are intelligent beings, we cannot desire anything save that which is necessary, nor yield absolute acquiescence to anything, save to that which is true : wherefore, in so far as we have a right understanding of these things, the endeavour of the better part of ourselves is in harmony with the order of nature as a whole.

1. ^ Ov. Met. vii.20, "*Video meliora proboque, Deteriora sequor.*"
2. ^ *Honestas*
3. ^ Land reads : "*Quod ipsius agendi potentia juvatur*"—which I have translated above. He suggests as alternative readings to "*quod*", "*quo*" (= whereby) and "*quodque*" (= and that).
4. ^ "*Maltim praesens minus prae majori futuro.*" (Van Vloten). Bruder reads : "*Malum praesens minus, quod causa est futuri alicujus mali.*" The last word of the latter is an obvious misprint, and is corrected by the Dutch translator into "*majoris boni.*" (Pollock, p. 268, note.)

The Spirit of the Chinese People/1

←Introduction: The Religion of Good-citizenship ..J by Gu Hongming The Chinese Woman→
The Spirit of the Chinese People

Now, what is the real Chinaman? That, I am sure, you will all agree with me, is a very interesting subject, especially at the present moment, when from what we see going on around us in China today, it would seem that the Chinese type of humanity_the real Chinaman_is going to disappear and, in his place, we are going to have a new type of humanity_the progressive or modern Chinaman. In fact I propose that before the real Chinaman, the old Chinese type of humanity, disappears altogether from the world we should take a good last look at him and see if we can find anything organically distinctive in him which makes him so different from all other people and from the new type of humanity which we see rising up in China today.

Now the first thing, I think, which will strike you in the old Chinese type of humanity is that there is nothing wild, savage or ferocious in him. Using a term which is applied to animals, we may say of the real Chinaman that he is a domesticated creature. Take a man of the lowest class of the population in China and, I think, you will agree with me that there is less of animality in him, less of the wild animal, of what the Germans call Rohheit, than you will find in a man of the same class in a European society. In fact, the one word, it seems to me, which will sum up the impression which the Chinese type of humanity makes upon you is the English word "gentle." By gentleness I do not mean softness of nature or weak submissiveness. "The docility of the Chinese," says the late Dr. D. J. Macgowan, "is not the docility of a broken-hearted, emasculated people. " But by the word " gentle" I mean absence of hardness, harshness, roughness, or violence, in fact of anything which jars upon you. There is in the true Chinese type of humanity an air, so to speak, of a quiet, sober, chastened mellowness, such as you find in a piece of well-tempered metal. Indeed the very physical and moral imperfections of a real Chinaman are, if not redeemed, at least softened by this quality of gentleness in him. The real Chinaman may be coarse, but there is no grossness in his coarseness. The real Chinaman may be ugly, but there is no hideousness in his ugliness. The real Chinaman may be vulgar, but there is no aggressiveness, no blatancy in his vulgarity. The real Chinaman may be stupid, but there is no absurdity in his stupidity. The real Chinaman may be cunning, but there is no deep malignity in his cunning. In fact what I want to say is, that even in the faults and blemishes of body, mind and character of the real Chinaman, there is nothing which revolts you. It is seldom that you will find a real Chinaman of the old school, even of the lowest type, who is positively repulsive.

I say that the total impression which the Chinese type of humanity makes upon you is that he is gentle, that he is inexpressibly gentle. When you analyse this quality of inexpressible gentleness in the real Chinaman, you will find that it is the the product of a combination of two things, namely, sympathy and intelligence. I have compared the Chinese type of humanity to a domesticated animal. Now what is that which makes a domesticated animal so different from a wild animal? It is something in the domesticated animal which we recognise as distinctively human. But what is distinctively human as distinguished from what is animal? It is intelligence. But the intelligence of a domesticated animal is not a thinking intelligence. It is not an intelligence which comes to him from reasoning.

Neither does it come to him from instinct, such as the intelligence of the fox, _ the vulpine intelligence which knows where eatable chickens are to be found. This intelligence which comes from instinct, of the fox, all, _even wild, animals have. But this, what may be called human intelligence of a domesticated animal is something quite different from the vulpine or animal intelligence. This intelligence of a domesticated animal is an intelligence which comes not from reasoning nor from instinct, but from sympathy, from a feeling of love and attachment. A thorough-bred Arab horse understands his English master not because he has studied English grammar nor because he has an instinct for the English language, but because he loves and is attached to his master. This is what I call human intelligence, as distinguished from mere vulpine or animal intelligence. It is the possession of this human quality which distinguishes domesticated from wild animals. In the same way, I say, it is the possession of this sympathetic and true human intelligence, which gives to the Chinese type of humanity, to the real Chinaman, his inexpressible gentleness.

I once read somewhere a statement made by a foreigner who had lived in both countries, that the longer a foreigner lives in Japan the more he dislikes the Japanese, whereas the longer a foreigner lives in China the more he likes the Chinese. I do not know if what is said of the Japanese here, is true. But, I think, all of you who have lived in China will agree with me that what is here said of the Chinese is true. It is well-known fact that the liking_you may call it the taste for the Chinese_grows upon the foreigner the longer he lives in this country. There is an indescribable something in the Chinese people which, in spite of their want of habits of cleanliness and refinement, in spite of their many defects of mind and character, makes foreigners like them as foreigners like no other people. This indescribable something which I have defined as gentleness, softens and mitigates, if it does not redeem, the physical and moral defects of the Chinese in the hearts of foreigners. This gentleness again is, as I have tried to show you, the product of what I call sympathetic or true human intelligence_an intelligence which comes not from reasoning nor from instinct, but from sympathy_from the power of sympathy. Now what is the secret of the power of sympathy of the Chinese people?

I will here venture to give you an explanation_a hypothesis, if you like to call it so_of the secret of this power of sympathy in the Chinese people and my explanation is this. The Chinese people have this power, this strong power of sympathy, because they live wholly, or almost wholly, a life of the heart. The whole life of Chinaman is a life of feeling_not feeling in the sense of sensation which comes from the bodily organs, nor feeling in the sense of passions which flow, as you would say, from the nervous system, but feeling in the sense of emotion or human affection which comes from the deepest part of our nature_the heart or soul. Indeed I may say here that the real Chinaman lives so much a life of emotion or human affection, a life of the soul, that he may be said sometimes to neglect more than he ought to do, even the necessary requirements of the life of the senses of a man living in this world composed of body and soul. That is the true explanation of the insensibility of the Chinese to the physical discomforts of unclean surroundings and want of refinement. But that is neither here nor there.

The Chinese people, I say, have the power of sympathy because they live wholly a life of the heart_a life of emotion or human affection. Let me here, first of all, give you two illustrations of what I mean by living a life of the heart. My first illustration is this. Some of you may have personally known an old friend and colleague of mine in Wuchang_known him when he was Minister of the Foreign Office here in Peking_Mr. Liang Tun-yen, Mr. Liang told me, when he first received the appointment of the Customs Taotai of Hankow, that what made him wish and strive to become a great mandarin, to wear the red button, and what gave him pleasure then in receiving this appointment, was not because he cared for the red button, not because he would henceforth be rich and independent, _and we were all of us very poor then in Wuchang, _but because he wanted to rejoice, because this promotion and advancement of his would gladden the heart of his old mother in Canton. That is what I mean when I say that the Chinese people live a life of the heart_a life of emotion or human affection.

My other illustration is this. A Scotch friend of mine in the Customs told me he once had a Chinese servant who was a perfect scamp, who lied, who "squeezed," and who was always gambling, but when my friend fell ill with typhoid fever in an out-of-the-way port where he had no foreign friend to attend to him, this awful scamp of a Chinese

servant nursed him with a care and devotion which he could not have expected from an intimate friend or near relation. Indeed I think what was once said of a woman in the Bible may also be said, not only of the Chinese servant, but of the Chinese people generally:—"Much is forgiven them, because they love much. " The eyes and understanding of the foreigner in China see many defects and blemishes in the habits and in the character of the Chinese, but his heart is attracted to them, because the Chinese have a heart, or, as I said, live a life of the heart—a life of emotion or human affection.

Now we have got, I think, a clue to the secret of sympathy in the Chinese people—the power of sympathy which gives to the real Chinaman that sympathetic or true human intelligence, making him so inexpressibly gentle. Let us next put this clue or hypothesis to the test. Let us see whether with this clue that the Chinese people live a life of the heart we can explain not only detached facts such as the two illustrations I have given above, but also general characteristics which we see in the actual life of the Chinese people.

First of all let us take the Chinese language. As the Chinese live a life of the heart, the Chinese language, I say, is also a language of the heart. Now it is a well-known fact that children and uneducated persons among foreigners in China learn Chinese very easily, much more so than grown-up and educated persons. What is the reason of this? The reason, I say, is because children and uneducated persons think and speak with the language of the heart, whereas educated men, especially men with the modern intellectual education of Europe, think and speak with the language of the head or intellect. In fact, the reason why educated foreigners find it so difficult to learn Chinese, is because they are too educated, too intellectually and scientifically educated. As it is said of the Kingdom of Heaven, so it may also be said of the Chinese language:—"Unless you become as little children, you cannot learn it. "

Next let us take another well-known fact in the life of the Chinese people. The Chinese, it is well-known, have wonderful memories. What is the secret of this? The secret is: the Chinese remember things with the heart and not with the head. The heart with its power of sympathy, acting as glue, can retain things much better than the head or intellect which is hard and dry. It is, for instance, also for this reason that we; all of us, can remember things which we learnt when we were children much better than we can remember things which we learnt in mature life. As children, like the Chinese, we remember things with the heart and not with the head.

Let us next take another generally admitted fact in the life of the Chinese people—their politeness. The Chinese are, it has often been remarked, a peculiarly polite people. Now what is the essence of true politeness? It is consideration for the feelings of others. The Chinese are polite because, living a life of the heart, they know their own feelings and that makes it easy for them to show consideration for the feelings of others. The politeness of the Chinese, although not elaborate like the politeness of the Japanese, is pleasing because it is, as the French beautifully express it, *la politesse du coeur*, the politeness of the heart. The politeness of the Japanese, on the other hand, although elaborate, is not so pleasing, and I have heard some foreigners express their dislike of it, because it is what may be called a rehearsal politeness—a politeness learnt by heart as in a theatrical piece. It is not a spontaneous politeness which comes direct from the heart. In fact the politeness of the Japanese is like a flower without fragrance, whereas the politeness of a really polite Chinese has a perfume like the aroma of a precious ointment—*instar unguenti fra-grantis*—which comes from the heart.

Last of all, let us take another characteristic of the Chinese people, by calling attention to which the Rev. Arthur Smith has made his reputation, viz. :—want of exactness. Now what is the reason for this want of exactness in the ways of the Chinese people? The reason, I say again, is because the Chinese live a life of the heart. The heart is a very delicate and sensitive balance. It is not like the head or intellect, a hard, stiff, rigid instrument. You cannot with the heart think with the same steadiness, with the same rigid exactness as you can with the head or intellect. At least, it is extremely difficult to do so. In fact, the Chinese pen or pencil which is a soft brush, may be taken as a symbol of the Chinese mind. It is very difficult to write or draw with it, but when you have once mastered the use of it, you will, with it, write and draw with a beauty and grace which you cannot do with a hard steel pen.

Now the above are a few simple facts connected with the life of the Chinese people which anyone, even without any knowledge of Chinese, can observe and understand, and by examining these facts, I think, I have made good my

hypothesis that the Chinese people live a life of the heart.

Now it is because the Chinese live a life of the heart, the life of a child, that they are so primitive in many of their ways. Indeed, it is a remarkable fact that for a people who have lived so long in the world as a great nation, the Chinese people should to this day be so primitive in many of their ways. It is this fact which has made superficial foreign students of China think that the Chinese have made no progress in their civilisation and that the Chinese civilisation is a stagnant one. Nevertheless, it must be admitted that, as far as pure intellectual life goes, the Chinese are, to a certain extent, a people of arrested development. The Chinese, as you all know, have made little or no progress not only in the physical, but also in the pure abstract sciences such as mathematics, logic and metaphysics. Indeed the very words "science" and "logic" in the European languages have no exact equivalent in the Chinese language. The Chinese, like children who live a life of the heart, have no taste for the abstract sciences, because in these the heart and feelings are not engaged. In fact, for everything which does not engage the heart and feelings, such as tables of statistics, the Chinese have a dislike amounting to aversion. But if tables of statistics and the pure abstract sciences fill the Chinese with aversion, the physical sciences as they are now pursued in Europe, which require you to cut up and mutilate the body of a living animal in order to verify a scientific theory, would inspire the Chinese with repugnance and horror.

The Chinese, I say, as far as pure intellectual life goes, are to a certain extent, a people of arrested development. The Chinese to this day live the life of a child, a life of the heart. In this respect, the Chinese people, old as they are as a nation, are to the present day, a nation of children. But then it is important you should remember that this nation of children, who live a life of the heart, who are so primitive in many of their ways, have yet a power of mind and rationality which you do not find in a primitive people, a power of mind and rationality which has enabled them to deal with the complex and difficult problems of social life, government and civilisation with a success which, I will venture to say here, the ancient and modern nations of Europe have not been able to attain_a success so signal that they have been able practically and actually to keep in peace and order a greater portion of the population of the Continent of Asia under a great Empire.

In fact, what I want to say here, is that the wonderful peculiarity of the Chinese people is not that they live a life of the heart. All primitive people also live a life of the heart. The Christian people of medieval Europe, as we know, also lived a life of the heart. Matthew Arnold says:_"The poetry of medieval Christainity lived by the heart and imagination." But the wonderful peculiarity of the Chinese people, I want to say here, is that, while living a life of the heart, the life of a child, they yet have a power of mind and rationality

which you do not find in the Christian people of medieval Europe or in any other primitive people. In other words, the wonderful peculiarity of the Chinese is that for a people, who have lived so long as a grown-up nation, as a nation of adult reason, they are yet able to this day to live the life of a child_a life of the heart.

Instead, therefore, of saying that the Chinese are a people of arrested development, one ought rather to say that the Chinese are a people who never grow old. In short the wonderful peculiarity of the Chinese people as a race, is that they possess the secret of perpetual youth.

Now we can answer the question which we asked in the beginning:_What is the real Chinaman? The real Chinaman, we see now, is a man who lives the life of a man of adult reason with the heart of a child. In short the real Chinaman is a person with the head of a grown-up man and the heart of a child. The Chinese spirit, therefore, is a spirit of perpetual youth, the spirit of national immortality. Now what is the secret of this national immortality in the Chinese people? You will remember that in the beginning of this discussion I said that what gives to the Chinese type of humanity_to the real Chinaman_his inexpressible gentleness is the possession of what I called sympathetic or true human intelligence. This true human intelligence, I said, is the product of a combination of two things, sympathy and intelligence. It is a working together in harmony of the heart and head. In short it is a happy union of soul with intellect. Now if the spirit of the Chinese people is a spirit of perpetual youth, the spirit of national immortality, the secret of this immortality is this happy union of soul with intellect.

You will now ask me where and how did the Chinese people get this secret of national immortality_this happy union of soul with intellect, which has enabled them as a race and nation to live a life of perpetual youth? The answer, of course, is that they got it from their civilisation. Now you will not expect me to give you a lecture on Chinese civilisation within the time at my disposal. But I will try to tell you something of the Chinese civilisation which has a bearing on our present subject of discussion.

Let me first of all tell you that there is, it seems to me, one great fundamental difference between the Chinese civilisation and the civilisation of modern Europe. Here let me quote an admirable saying of a famous living art critic, Mr. Bernard Berenson. Comparing European with Oriental art, Mr. Berenson says:_"Our European art has the fatal tendency to become science and we hardly possess a masterpiece which does not bear the marks of having been a battlefield for divided interests. " Now what I want to say of the European civilisation is that it is, as Mr. Berenson says of European art, a battlefield for divided interests; a continuous warfare for the divided interests of science and art on the one hand, and of religion and philosophy on the other; in fact a terrible battlefield where the head and the heart_the soul and the intellect_come into constant conflict. In the Chinese civilisation, at least for the last , years, there is no such conflict. That, I say, is the one great fundamental difference between the Chinese civilisation and that of modern Europe.

In other words, what I want to say, is that in modern Europe, the people have a religion which satisfies their heart, but not their head, and a philosophy which satisfies their head but not their heart. Now let us look at China. Some people say that the Chinese have no religion. It is certainly true that in China even the mass of the people do not take seriously to religion. I mean religion in the European sense of the word. The temples, rites and ceremonies of Taoism and Buddhism in China are more objects of recreation than of edification; they touch the aesthetic sense, so to speak, of the Chinese people rather than their moral or religious sense; in fact, they appeal more to their imagination than to their heart or soul. But instead of saying that the Chinese have no religion, it is perhaps more correct to say that the Chinese do not want_do not feel the need of religion.

Now what is the explanation of this extraordinary fact that the Chinese people, even the mass of the population in China, do not feel the need of religion? It is thus given by an Englishman. Sir Robert K. Douglas, Professor of Chinese in the London University, in his study of Confucianism, says:_"Upwards of forty generations of Chinamen have been absolutely subjected to the dicta of one man. Being a Chinaman of Chinamen the teachings of Confucius were specially suited to the nature of those he taught. The Mongolian mind being eminently phlegmatic and unspeculative, naturally rebels against the idea of investigating matters beyond its experiences. With the idea of a future life still unawakened, a plain, matter-of-fact system of morality, such as that enunciated by Confucius, was sufficient for all the wants of the Chinese. "

That I_amed English professor is right, when he says that the Chinese people do not feel the need of religion, because they have the teachings of Confucius, but he is altogether wrong, when he asserts that the Chinese people do not feel the need of religion because the Mongolian mind is phlegmatic and unspeculative. In the first place religion is not a matter of speculation. Religion is a matter of feeling, of emotion; it is something which has to do with the human soul. The wild, savage man of Africa even, as soon as he emerges from a mere animal life and what is called the soul in him, is awakened, _ feels the need of religion. Therefore although the Mongolian mind may be phlegmatic and unspeculative, the Mongolian Chinaman, who, I think it must be admitted, is a higher type of man than the wild man of Africa, also has a soul, and, having a soul, must feel the need of religion unless he has something which can take for him the place of religion.

The truth of the matter is, _the reason why the Chinese people do not feel the need of religion is because they have in Confucianism a system of philosophy and ethics, a synthesis of human society and civilisation which can take the place of religion. People say that Confucianism is not a religion. It is perfectly true that Confucianism is not a religion in the ordinary European sense of the word. But then I say the greatness of Confucianism lies even in this, that it is not a religion. In fact, the greatness of Confucianism is that, without being a religion, it can take the place of religion; it can make men do without religion.

Now in order to understand how Confucianism can take the place of religion we must try and find out the reason why mankind, why men feel the need of religion. Mankind, it seems to me, feel the need of religion for the same reason that they feel the need of science, of art and of philosophy. The reason is because man is a being who has a soul. Now let us take science, I mean physical science. What is the reason which makes men take up the study of science? Most people now think that men do so, because they want to have railways and aeroplanes. But the motive which impels the true men of science to pursue its study is not because they want to have railways and aeroplanes. Men like the present progressive Chinamen, who take up the study of science, because they want railways and aeroplanes, will never get science. The true men of science in Europe in the past who have worked for the advancement of science and brought about the possibility of building railways and aeroplanes, did not think at all of railways and aeroplanes. What impelled those true men of science in Europe and what made them succeed in their work for the advancement of science, was because they felt in their souls the need of understanding the awful mystery of the wonderful universe in which we live. Thus mankind, I say, feel the need of religion for the same reason that they feel the need of science, art and philosophy; and the reason is because man is a being who has a soul, and because the soul in him, which looks into the past and future as well as the present_ not like animals which live only in the present_ feels the need of understanding the mystery of this universe in which they live. Until men understand something of the nature, law, purpose and aim of the things which they see in the universe, they are like children in a dark room who feel the danger, insecurity and uncertainty of everything. In fact, as an English poet says, the burden of the mystery of the universe weighs upon them. Therefore mankind want science, art and philosophy for the same reason that they want religion, to lighten for them "the burden of the mystery,

The heavy and the weary weight of All this unintelligible world. "

Art and poetry enable the artist and poet to see beauty and order in the universe and that lightens for them the burden of this mystery. Therefore poets like Goethe, who says: "He who has art, has religion, " do not feel the need of religion. Philosophy also enables the philosophers to see method and order in the universe, and that lightens for them the burden of this mystery. Therefore philosophers, like Spinoza, "for whom, " it has been said, "the crown of the intellectual life is a transport, as for the saint the crown of the religious life is a transport," do not feel the need of religion. Lastly, science also enables the scientific men to see law and order in the universe, and that lightens for them the burden of this mystery. Therefore scientific men like Darwin and Professor Haeckel do not feel the need of religion.

But for the mass of mankind who are not poets, artists, philosophers or men of science; for the mass of mankind whose lives are full of hardships and who are exposed every moment to the shock of accident from the threatening forces of Nature and the cruel merciless passions of their fellow-men, what is it that can lighten for them the

"burden of the mystery of all this unintelligible world?" It is religion. But how does religion lighten for the mass of mankind the burden of this mystery? Religion, I say, lightens this burden by giving the mass of mankind a sense of security and a sense of permanence. In presence of the threatening forces of Nature and the cruel merciless passions of their fellowmen and the mystery and terror which these inspire, religion gives to the mass of mankind a refuge_a refuge in which they can find a sense of security ; and that refuge is a belief in some supernatural Being or beings who have absolute power and control over those forces which threaten them. Again, in presence of the constant change, vicissitude and transition of things in their own lives_birth, childhood, youth, old age and death, and the mystery and uncertainty which these inspire, religion gives to the mass of mankind also a refuge_a refuge in which they can find a sense of permanence; and that refuge is the belief in a future life. In this way, I say, religion lightens for the mass of mankind who are not poets, artists, philosophers or scientific men, the burden of the mystery of all this unintelligible world, by giving them a sense of security and a sense of permanence in their existence. Christ said: " Peace I give unto you, peace which the world cannot give and which the world cannot take away from you." That is what I mean when I say that religion gives to the mass of mankind a sense of security and a sense of permanence. Therefore, unless you can find something which can give to the mass of mankind the same peace, the same sense of security and of permanence which religion affords them, the mass of mankind will always feel the need of religion.

But I said Confucianism, without being a religion can take the place of religion. Therefore, there must be something in Confucianism which can give to the mass of mankind the same sense of security and permanence which religion affords them. Let us now find out what this something is in Confucianism which can give the same sense of security and sense of permanence that religion gives.

I have often been asked to say what Confucius has done for the Chinese nation. Now I can tell you of many things which I think Confucius has accomplished for the Chinese people. But, as to-day I have not the time, I will only here try to tell you of one principal and most important thing which Confucius has done for the Chinese nation—the one thing he did in his life by which, Confucius himself said, men in after ages would know him, would know what he had done for them. When I have explained to you this one principal thing, you will then understand what that something is in Confucianism which can give to the mass of mankind the same sense of security and sense of permanence which religion affords them. In order to explain this, I must ask you to allow me to go a little more into detail about Confucius and what he did.

Confucius, as some of you may know, lived in what is called a period of expansion in the history of China—a period in which the feudal age had come to an end; in which the feudal, the semi-patriarchal social order and form of government had to be expanded and reconstructed. This great change necessarily brought with it not only confusion in the affairs of the world, but also confusion in men's minds. I have said that in the Chinese civilisation of the last years there is no conflict between the heart and the head. But I must now tell you that in the period of expansion in which Confucius lived there was also in China, as now in Europe, a fearful conflict between the heart and the head. The Chinese people in Confucius's time found themselves with an immense system of institutions, established facts, accredited dogmas, customs, laws—in fact, an immense system of society and civilisation which had come down to them from their venerated ancestors. In this system their life had to be carried forward; yet they began to feel—they had a sense that this system was not of their creation, that it by no means corresponded with the wants of their actual life; that, for them, it was customary, not rational. Now the awakening of this sense in the Chinese people years ago was the awakening of what in Europe to-day is called the modern spirit—the spirit of liberalism, the spirit of enquiry, to find out the why and the wherefore of things. This modern spirit in China then, seeing the want of correspondence of the old order of society and civilisation with the wants of their actual life, set itself not only to reconstruct a new order of society and civilisation, but also to find a basis for this new order of society and civilisation. But all the attempts to find a new basis for society and civilisation in China then failed. Some, while they satisfied the head—the intellect of the Chinese people, did not satisfy their heart; others, while they satisfied their heart, did not satisfy their head. Hence arose, as I said, this conflict between the heart and the head in China years ago, as we see it now in Europe. This conflict of the heart and head in the new order of society and civilisation which men tried to reconstruct made the Chinese people feel dissatisfied with all civilisation, and in the agony and despair which this dissatisfaction produced, the Chinese people wanted to pull down and destroy all civilisation. Men, like Laotzu, then in China as men like Tolstoy in Europe to-day, seeing the misery and suffering resulting from the conflict between the heart and the head, thought they saw something radically wrong in the very nature and constitution of society and civilisation. Laotzu and Chuang-tzu, the most brilliant of Laotzu's disciples, told the Chinese people to throw away all civilisation. Laotzu said to the people of China: "Leave all that you have and follow me; follow me to the mountains, to the hermit's cell in the mountains, there to live a true life—a life of the heart, a life of immortality."

But Confucius, who also saw the suffering and misery of the then state of society and civilisation, thought he recognised the evil was not in the nature and constitution of society and civilisation, but in the wrong track which society and civilisation had taken, in the wrong basis which men had taken for the foundation of society and civilisation. Confucius told the Chinese people not to throw away their civilisation. Confucius told them that in a true society and true civilisation—in a society and civilisation with a true basis men also could live a true life, a life of the heart. In fact, Confucius tried hard all his life to put society and civilisation on the right track; to give it a true basis, and thus prevent the destruction of civilisation. But in the last days of his life, when Confucius saw that he could not prevent the destruction of the Chinese civilisation—what did he do? Well, as an architect who sees his house on fire, burning and falling over his head, and is convinced that he cannot possibly save the building, knows that the only

thing for him to do is- to save the drawings and plans of the building so that it may afterwards be built again; so Confucius, seeing the inevitable destruction of the building of the Chinese civilisation which he could not prevent, thought he would save the drawings and plans, and he accordingly saved the drawings and plans of the Chinese civilisation, which are now preserved in the Old Testament of the Chinese Bible_the five Canonical Books known as the Wu Ching, five Canons. That, I say, was a great service which Confucius has done for the Chinese nation_he saved the drawings and plans of their civilisation for them.

Confucius, I say, when he saved the drawings and plans of the Chinese civilisation, did a great service for the Chinese nation. But that is not the principal, the greatest service which Confucius has done for the Chinese nation. The greatest service he did was that, in saving the drawings and plans of their civilisation, he made a new synthesis, a new interpretation of the plans of that civilisation, and in that new synthesis he gave the Chinese people the true idea of a State_a true, rational, permanent, absolute basis of a State.

But then Plato and Aristotle in ancient times, and Rousseau and

Herbert Spencer in modern times also made a synthesis of civilisation, and tried to give a true idea of a State. Now what is the difference between the philosophy, the synthesis of civilisation made by the great men of Europe I have mentioned, and the synthesis of civilisation_the system of philosophy and morality now known as Confucianism? The difference, it seems to me, is this. The philosophy of Plato and Aristotle and of Herbert Spencer has not become a religion or the equivalent of a religion, the accepted faith of the masses of a people or nation, whereas Confucianism has become a religion or the equivalent of a religion to even the mass of the population in China. When I say religion here, I mean religion, not in the narrow European sense of the word, but in the broad universal sense. Goethe says:_" Nur saemtliche Menschen erkennen die Natur; nur saemtliche Menschen leben das Menschliche * . Only the mass of mankind know what is real life; only the mass of mankind live a true human life." Now when we speak of religion in its broad universal sense, we mean generally a system of teachings with rules of conduct which, as Goethe says, is accepted as true and binding by the mass of mankind, or at least, by the mass of the population in a people or nation. In this broad and universal sense of the word Christianity and Buddhism are religions. In this broad and universal sense, Confucianism, as you know, has become a religion, as its teachings have been acknowledged to be true and its rules of conduct to be binding by the whole Chinese race and nation, whereas the philosophy of Plato, of Aristotle and of Herbert Spencer has not become a religion even in this broad universal sense. That, I say, is the difference between Confucianism and the philosophy of Plato and Aristotle and of Herbert Spencer_the one has remained a philosophy for the learned, whereas the other has become a religion or the equivalent of a religion for the mass of the whole Chinese nation as well as for the learned of China.

In this broad universal sense of the word, I say Confucianism is a religion just as Christianity or Buddhism is a religion. But you will remember I said that Confucianism is not a religion in the European sense of the word. What is then the difference between Confucianism and a religion in the European sense of the word? There is, of course, the difference that the one has a supernatural origin and element in it, whereas the other has not. But besides this difference of supernatural and non-supernatural, there is also another difference between Confucianism and a religion in the European sense of the word such as Christianity and Buddhism, and it is this. A religion in the European sense of the word teaches a man to be a good man . But Confucianism does more than this; Confucianism teaches a man to be a good citizen. The Christian Catechism asks:_"What is the chief end of man?" But the Confucian Catechism asks:_"What is the chief end of a citizen ?" of man, not in his individual life, but man in his relation with his fellowmen and in his relation to the State? The Christian answers the words of his Catechism by saying:" The chief end of man is to glorify God. " The Confucianist answers the words of his Catechism by saying: "The chief end of man is to live as a dutiful son and a good citizen. " Tzii Yu, a disciple of Confucius, is quoted in the Sayings and Discourses of Confucius, saying: "A wise man devotes his attention to the foundation of life_the chief end of man. When the foundation is laid, wisdom, religion will come. Now to live as a dutiful son and good citizen, is not that the foundation_the chief end of man as a moral being?" In short, a religion in the European sense of the word makes it its object to transform man into a perfect ideal man by himself, into a saint, a Buddha, an angel,

whereas Confucianism limits itself to make man into a good citizen_ to live as a dutiful son and a good citizen. In other words, a religion

in the European sense of the word says:_"If you want to have religion, you must be a saint, a Buddha, an angel;" whereas Confucian-ism says:_"If you live as a dutiful son and a good citizen, you have religion."

In fact, the real difference between Confucianism and religion in the European sense of the word, such as Christianity or Buddhism, is that the one is a personal religion, or what may be called a Church religion, whereas the other is a social religion, or what may be called a State religion. The greatest service, I say, which Confucius has done for the Chinese nation, is that he gave them a true idea of a State. Now in giving this true idea of a State, Confucius made that idea a religion. In Europe politics is a science, but in China, since, Confucius' time, politics is a religion. In short, the greatest service which Confucius has done for the Chinese nation, I say, is that he gave them a Social or State religion. Confucius taught this State religion in a book which he wrote in the very last days of his life, a book to which he gave the name of *Ch'un c'i'im* (^, Spring and Autumn. Confucius gave the name of Spring and Autumn to this book because the object of the book is to give the real moral causes which govern the rise and fall_ the Spring and Autumn of nations. This book might also be called the *Latter Day Annals*, like the *Latter Day Pamphlets* of Carlyle. In this book Confucius gave a resume of the history of a false and decadent state of society and civilisation in which he traced all the suffering and misery of that false and decadent state of society and civilisation to its real cause_ to the fact that men had not a true idea of a State; no right conception of the true nature of the duty which they owe to the State, to the head of the State, their ruler and Sovereign. In a way Confucius in this book taught the divine right of kings. Now I know all of you, or at least most of you, do not now believe in the divine right of kings. I will not argue the point with you here. I will only ask you to suspend your judgment until you have heard what I have further to say. In the meantime I will just ask your permission to quote to you here a saying of Carlyle. Carlyle says: "The right of a king to govern us is either a divine right or a diabolic wrong. " Now I want you, on this subject of the divine right of kings, to remember and ponder over this saying of Carlyle.

In this book Confucius taught that, as in all the ordinary relations and dealings between men in human society, there is, besides the base motives of interest and of fear, a higher and nobler motive to influence them in their conduct, a higher and nobler motive which rises above all considerations of interest and fear, the motive called Duty; so in this important relation of all in human society, the relation between the people of a State or nation and the Head of that State or nation, there is also this higher and nobler motive of Duty which should influence and inspire them in their conduct. Bnt what is the rational basis of this duty which the people in a State or nation owe to the head of the State or nation? Now in the feudal age before Confucius' time, with its semi-patriarchal order of Society and form of Government, when the State was more or less a family, the poeple did not feel so much the need of having a clear and firm basis for the duty which they owe to the Head of the State, because, as they were all members of one clan or family, the tie of kinship or natural affection already, in a way, bound them to the Head of the State, who was also the senior member of their clan or family. But in Confucius' time the feudal age, as I said, had come to an end; when the State had outgrown the family, when the citizens of a State were no longer composed of the members of a clan or family. It was, therefore, then necessary to find a new, clear, rational and firm basis for the duty which the people in a State or nation owe to the Head of the State_ their ruler and sovereign. Now what new basis did Confucius find for this duty? Confucius found the new basis for this duty in the word Honour.

When I was in Japan last year the ex-Minister of Education, Baron Kikuchi, asked me to translate four Chinese characters taken from the book in which, as I said, Confucius taught this State religion of his. The four characters were *Ming fen to. yi* (^ ^ ^fo^C) . I translated them as the Great Principle of Honour and Duty. It is for this reason that the Chinese make a special distinction between Con-fucianism and all other religions by calling the system of teaching taught by Confucius not a *chiao* (^_ the general term in Chinese for religion with which they designate other religions, such as Buddhism, Mohammedanism and Christianity_ but the *ming chiao* (^ ^C)_ the religion of Honour. Again the term *chum tzu chih too* (^ ^.\$IM) in the teachings of Confucius, translated by Dr. Legge as "the way of the superior man, " for which the nearest equivalent in the European languages is moral law_ means literally, the

way_the Law of the Gentleman. In fact, the whole system of philosophy and morality taught by Confucius may be summed up in one word: the Law of the Gentleman. Now Confucius codified this law of the gentleman and made it a Religion, _a State religion. The first Article of Faith in this State Religion is Ming fen ta yi_the Principle of Honour and Duty_which may thus be called: A Code of Honour.

In this State religion Confucius taught that the only true, rational, permanent and absolute basis, not only of a State, but of all Society and civilisation, is this law of the gentleman, the sense of honour in man. Now you, all of you, even those who believe that there is no morality in politics_all of you, I think, know and will admit the importance of this sense of honour in men in human society. But I am not quite sure that all of you are aware of the absolute necessity of this sense of honour in men for the carrying on of every form of human society; in fact, as the proverb which says: "There must be honour even among thieves, " show_even for the carrying on of a society of thieves. Without the sense of honour in men, all society and civilisation would on the instant break down and become impossible. Will you allow me to show you how this is so? Let us take, for example, such a trivial matter as gambling in social life. Now unless men when they sit down to gamble all recognise and feel themselves bound by the sense of honour to pay when a certain colour of cards or dice turns up, gambling would on the instant become impossible. The merchants again_unless merchants recognise and feel themselves bound by the sense of honour to fulfil their contracts, all trading would become impossible. But you will say that the merchant who repudiates his contract can be taken to the law-court. True, but if there were no law-courts, what then? Besides, the law-court_how can the law-court make the defaulting merchant fulfil his contract? By force. In fact, without the sense of honour in men, society can only be held together for a time by force. But then I think I can show you that force alone cannot hold society permanently together. The policeman who compels the merchant to fulfil his contract, uses force. But the lawyer, magistrate or president of a republic_how does he make the policeman do his duty? You know he cannot do it by force; but then by what? Either by the sense of honour in the policemen or by fraud.

In modern times all over the world to-day_and I am sorry to say now also in China_the lawyer, politician, magistrate and president of a republic make the policeman do his duty by fraud. In modern times the lawyer, politician, magistrate and president of a republic tell the policeman that he must do his duty, because it is for the good of society and for the good of his country; and that the good of society means that he, the policeman, can get his pay regularly, without which he and his family would die of starvation. The lawyer, politician or president of a republic who tells the policeman this, I say, zises fraud. I say it is fraud, because the good of the country, which for the policeman means fifteen shillings a week, which barely keeps him and his family from starvation, means for the lawyer, politician, magistrate and president of a republic ten to twenty thousand pounds a year, with a fine house, electric light, motor cars and all the comforts and luxuries which the life blood labour of ten thousands of men has to supply him. I say it is fraud because without the recognition of a sense of honour_the sense of honour which makes the gambler pay the last penny in his pocket to the player who wins from him, without this sense of honour, all transfer and possession of property which makes the inequality of the rich and poor in society, as well as the transfer of money on a gambling table, has no justification whatever and no binding force. Thus the lawyer, politician, magistrate or president of a republic, although they talk of the good of society and the good of the country, really depend upon the policeman's unconscious sense of honour which not only makes him do his duty, but also makes him respect the right of property and be satisfied with fifteen shillings a week, while the lawyer, politician and president of a republic receive an income of twenty thousand pounds a year. I, therefore, say it is fraud because while they thus demand the sense of honour from the policeman; they, the lawyer, politician, magistrate and president of a republic in modern society believe, openly say and act on the principle that there is no morality, no sense of honour in politics.

You will remember what Carlyle, I told you, said_that the right of a king to govern us is either a divine right or a diabolic wrong. Now this fraud of the modern lawyer, politician, magistrate and president of a republic is what Carlyle calls a diabolic wrong. It is this fraud, this Jesuitism of the public men in modern society, who say and act on the principle that there is no morality, no sense of honour in politics and yet plausibly talk of the good of society and the good of the country; it is this Jesuitism which, as Carlyle says, gives rise to "the widespread suffering, mutiny,

delirium, the hot rage of sansculottic insurrections, the cold rage of resuscitated tyrannies, brutal degradation of the millions, the pampered frivolity of the units" which we see in modern society to-day. In short, it is this combination of fraud and force, Jesuitism and Militarism, lawyer and policeman, which has produced Anarchists and Anarchism in modern society, this combination of force and fraud outraging the moral sense in man and producing madness which makes the Anarchist throw bomb and dynamite against the lawyer, politician, magistrate and president of a republic.

In fact, a society without the sense of honour in men, and without morality in its politics, cannot, I say, be held together, or at any rate, cannot last. For in such a society the policeman, upon whom the lawyer, politician, magistrate and president of a republic depend to carry out their fraud, will thus argue with himself. He is told that he must do his duty for the good of society. But he, the poor policeman, is also a part of that society_to himself and his family, at least, the most important part of that society. Now if by some other way than by being a policeman, perhaps by being an anti-policeman, he can get better pay to improve the condition of himself and his family, that also means the good of society. In that way the policeman must sooner or later come to the conclusion that, as there is no such thing as a sense of honour and morality in politics, there is then no earthly reason why, if he can get better pay, which means also the good of society_no reason why, instead of being a policeman, he should not become a revolutionist or anarchist- In a society when the policeman once comes to the conclusion that there is no reason why, if he can get better pay, he should not become a revolutionist or anarchist_that society is doomed. Mencius said:_"When Confucius completed his Spring and Autumn Annals"_the book in which he taught the State religion of his _and in which he showed that the society of his time_in which there was then, as in the world to-day, no sense of honour in public men and no morality in politics_was doomed; when Confucius wrote that book, "the Jesuits and anarchists (lit. bandits) of his time, became afraid."

But to return from the digression, I say, a society without the sense of honour cannot be held together, cannot last. For if, as we have seen, even in the relation between men connected with matters of little or no vital importance such as gambling and trading in human society, the recognition of the sense of honour is so important and necessary, how much more so it must be in the relations between men in human society, which establish the two most essential institutions in that society, the Family and the State. Now, as you all know, the rise of civil society in the history of all nations begins always with the institution of marriage. The Church religion in Europe makes marriage a sacrament, i.e., something sacred and inviolable. The sanction for the sacrament of marriage in Europe is given by the Church and the authority for the sanction is God. But that is only an outward, formal, or so to speak, legal sanction. The true, inner, the really binding sanction for the inviolability of marriage_as we see it in countries where there is no church religion, is the sense of honour, the law of the gentleman in the man and woman. Confucius says, "The recognition of the law of the gentleman begins with the recognition of the relation between husband and wife. "*** In other words, the recognition of the sense of honour_the law of the gentleman_in all countries where there is civil society, establishes the institution of marriage. The institution of marriage establishes the Family.

I said that the State religion which Confucius taught is a Code of Honour, and I told you that Confucius made this Code out of the law of the gentleman. But now I must tell you that long before Confucius' time there existed already in China an undefined and unwritten code of the law of the gentleman. This undefined and unwritten code of the law of the gentleman in China before Confucius' time was known as li (U) the law of propriety, good taste or good manners. Later on in history before Confucius' time a great statesman arose in China_the man known as the great Law-giver of China, generally spoken of as the Duke of Chou (^_^) (B.C.)_who first defined, fixed, and made a written code of the law of the gentleman, known then in China as li, the law of propriety, good taste or good manners. This first written code of the gentleman in China, made by the Duke of Chou, became known as Chou li_the laws of good manners of the Duke of Chou. This Code of the laws of good manners of the Duke of Chou may be considered as the pre-Confucian religion in China, or, as the Mosaic law of the Jewish nation before Christianity is called, the Religion of the Old Dispensation of the Chinese people. It was this religion of the old dispensation_the first written code of the law of the gentleman called the Laws of good manners of the Duke of Chou_which first gave the sanction for the sacrament and inviolability of marriage in China. The Chinese to this day therefore speak of the

sacrament of marriage as Chou Kung Chih Li (J[^]-[^]L)_{the law of good manners of the Duke of Chou. By the institution of the sacrament of marriage, the pre-Confucian or Religion of the Old Dispensation in China established the Family. It secured once for all the stability and permanence of the family in China. This pre-Confucian or Religion of the Old Dispensation known as the laws of good manners of the Duke of Chou in China might thus be called a Family religion as distinguished from the State religion which Confucius afterwards taught.}

Now Confucius in the State religion which he taught, gave a new Dispensation, so to speak, to what I have called the Family religion which existed before his time. In other words, Confucius gave a new, wider and more comprehensive application to the law of the gentleman in the State religion which he taught; and as the Family religion, or Religion of the Old Dispensation in China before his time instituted the sacrament of marriage, Confucius, in giving this new, wider, and more comprehensive application to the law of the gentleman in the State religion which he taught, instituted a new sacrament. This new sacrament which Confucius instituted, instead of calling it li_{the Law of good manners}, he called it ming fen to. yi, which I have translated as the Great Principle of Honour and Duty or Code of Honour. By the institution of this ming fen to. yi or Code of Honour Confucius gave the Chinese people, instead of a Family religion, which they had before_{a State religion.}

Confucius, in the State religion which he now gave, taught that, as under the old dispensation of what I have called the Family religion before his time, the wife and husband in a family are bound by the sacrament of marriage, called Chou Kung Chih Li, the Law of good manners of the Duke of Chou_{to hold their contract of marriage inviolable and to absolutely abide by it}, so under the new dispensation of the State religion which he now gave, the people and their sovereign in every State, the Chinese people and their Emperor in China, are bound by this new sacrament called ming fen to. yi_{the Great Principle of Honour and Duty or Code of Honour established by this State religion}_{to hold the contract of allegiance between them as something sacred and inviolable and absolutely to abide by it.} In short, this new sacrament called ming fen to. yi, or Code of Honour which Confucius instituted, is a Sacrament of the Contract of Allegiance, as the old sacrament called Chou Kung Chih Li, the Law of Good Manners of the Duke of Chou which was instituted before his time, is a sacrament of marriage. In this way Confucius, as I said, gave a new, wider, and more comprehensive application to the law of the gentleman, and thus gave a new dispensation to what I have called the Family religion in China before his time, and made it a State religion.

In other words, this State religion of Confucius makes a sacrament of the contract of allegiance as the Family Religion in China before his time, makes a sacrament of the contract of marriage. As by the sacrament of marriage established by the Family Religion the wife is bound to be absolutely loyal to her husband, so by this sacrament of the contract of allegiance called ming fen ta yi, or Code of Honour established by the State religion taught by Confucius in China, the people of China are bound to be absolutely loyal to the Emperor. This sacrament of the contract of allegiance in the State religion taught by Confucius in China might thus be called the Sacrament or Religion of Loyalty. You will remember what I said to you that Confucius in a way taught the Divine right of kings. But instead of saying that Confucius taught the Divine right of kings I should properly have said that Confucius taught the Divine duty of Loyalty. This Divine or absolute duty of loyalty to the Emperor in China which Confucius taught derives its sanction, not as the theory of the Divine right of kings in Europe derives its sanction from the authority of a supernatural Being called God or from some abstruse philosophy, but from the law of the gentleman_{the sense of honour in man}, the same sense of honour which in all countries makes the wife loyal to her husband. In fact, the absolute duty of loyalty of the Chinese people to the Emperor which Confucius taught, derives its sanction from the same simple sense of honour which makes the merchant keep his word and fulfil his contract, and the gambler play the game and pay his gambling debt.

Now, as what I have called the Family religion, the religion, the religion of the old dispensation in China and the Church religion in all countries, by the institution of the sacrament and inviolability of marriage establishes the Family, so what I have called the State religion in China which Confucius taught, by the institution of this new sacrament of the contract of allegiance, establishes the State. If you will consider what a great service the man who first instituted the sacrament and established the inviolability of marriage in the world has done for humanity and the

cause of civilisation, you will then, I think, understand what a great work this is which Confucius did when he instituted this new sacrament and established the inviolability of the contract of allegiance. The institution of the sacrament of marriage secures the stability and permanence of the Family, without which the human race would become extinct. The institution of this sacrament of the contract of allegiance secures the stability and permanence of the State, without which human society and civilisation would all be destroyed and mankind would return to the state of savages or animals. I therefore said to you that the greatest thing which Confucius has done for the Chinese people is that he gave them the true idea of a State_a true, rational, permanent, and absolute basis of a State, and in giving them that, he made it a religion, _a State religion.

Confucius taught this State religion in a book which, as I told you, he wrote in the very last days of his life, a book to which he gave the name of Spring and Autumn. In this book Confucius first instituted the new sacrament of the contract of allegiance called ming fen ta yi, or the Code of Honour. This sacrament is therefore often and generally spoken of as Chun Chiu ming fen to. yi (^i-^.^.^). JO, or simply Chun Chiu ta yi_(^^C^Cjic) i. e., the Great Principle of Honour and Duty of the Spring and Autumn Annals, or simply the Great Principle or Code of the Spring and Autumn Annals. This book in which Confucius taught the Divine duty of loyalty is the Magna Charta of the Chinese nation. It contains the sacred covenant, the sacred social contract by which Confucius bound the whole Chinese people and nation to be absolutely loyal to the Emperor, and this covenant or sacrament, this Code of Honour, is the one and only true Constitution not only of the State and Government in China, but also of the Chinese civilisation. Confucius said it is by this book that after ages would know him_know what he had done for the world.

I am afraid I have exhausted your patience in taking such a very long way to come to the point of what I want to say. But now we have got to the point where I last left you. You will remember I said that the reason why the mass of mankind will always feel the need of religion_I mean religion in the European sense of the word_is because religion gives them a refuge, one refuge, the belief in an all powerful Being called God in which they can find a sense of permanence in their existence. But I said that the system of philosophy and morality which Confucius taught, known as Confucianism, can take the place of religion, can make men, even the mass of mankind do without religion. Therefore, there must be, I said, something in Confucianism which can give to men, to the mass of mankind, the same sense of security and sense of permanence which religion gives. Now, I think we have found this something. This something is the Divine duty of loyalty to the Emperor taught by Confucius in the State religion which he has given to the Chinese nation.

Now, this absolute Divine duty of loyalty to the Emperor of every man, woman, and child in the whole Chinese Empire gives, as you can understand, in the minds of the Chinese population, an absolute, supreme, transcendent, almighty power to the Emperor; and this belief in the absolute, supreme, transcendent, almighty power of the Emperor it is which gives to the Chinese people, to the mass of the population in China, the same sense of security which the belief in God in religion gives to the mass of mankind in other countries. The belief in the absolute, supreme, transcendent, almighty power of the Emperor also secures in the minds of the Chinese population the absolute stability and permanence of the State. This absolute stability and permanence of the State again secures the infinite continuance and lastingness of society. This infinite continuance and lasting-ness of society finally secures in the minds of the Chinese population the immortality of the race. Thus it is this belief in the immortality of the race, derived from the belief in the almighty power of the Emperor given to him by the Divine duty of loyalty, which gives to the Chinese people, the mass of the population in China, the same sense of permanence in their existence which the belief in a future life of religion gives to the mass of mankind in other countries.

Again, as the absolute Divine duty of loyalty taught by Confucius secures the immortality of the race in the nation, so the cult of ancestor-worship taught in Confucianism secures the immortality of the race in the family. Indeed, the cult of ancestorworship in China is not founded much on the belief in a future life as in the belief of the immortality of the race. A Chinese, when he dies, is not consoled by the belief that he will live a life hereafter, but by the belief that his children, grandchildren, great-grand-children, all those dearest to him, will remember him, think of him, love him, to the end of time, and in that way, in his imagination, dying, to a Chinese, is like going on a long, long journey,

if not with the hope, at least with a great "perhaps" of meeting again. Thus this cult of ancestor-worship, together with the Divine duty of loyalty, in Confucianism gives to the Chinese people the same sense of permanence in their existence while they live and the same consolation when they die which the belief in a future life in religion gives to the mass of mankind in other countries. It is for this reason that the Chinese people attach the same importance to this cult of ancestor-worship as they do to the principle of the Divine duty of loyalty to the Emperor. Mencius said: "Of the three great sins against filial piety the greatest is to have no posterity." Thus the whole system of teaching of Confucius which I have called the State religion in China consists really only of two things, loyalty to the Emperor and filial piety to parents_in Chinese, Chung Hsiao. Intact, the three Articles of Faith, called in Chinese the san kang, three cardinal duties in Confucianism or the State religion of China, are, in their order of importance_first, absolute duty of loyalty to the Emperor; second, filial piety and ancestor-worship; third, inviolability of marriage and absolute submission of the wife to the husband. The last two of the three Articles were already in what I have called the Family religion, or religion of the old dispensation in China before Confucius' time; but the first Article_absolute duty of loyalty to the Emperor_was first taught by Confucius and laid down by him in the State religion or religion of the new dispensation which he gave to the Chinese nation. This first Article of Faith_absolute duty of loyalty to the Emperor_ in Confucianism takes the place and is the equivalent of the First Article of Faith in all religions_the belief in God. It is because Confucianism has this equivalent for the belief in God of religion that Confucianism, as I have shown you, can take the place of religion, and the Chinese people, even the mass of the population in China, do not feel the need of religion.

But now you will ask me how without a belief in God which religion teaches, how can one make men, make the mass of mankind, follow and obey the moral rule which Confucius teaches, the absolute duty of loyalty to the Emperor, as you can by the authority of God which the belief in God gives, make men follow and obey moral rules given by religion? Before I answer your question, will you allow me first to point out to you a great mistake which people make in believing that it is the sanction given by the authority of God which makes men obey the rules of moral conduct. I told you that the sanction for the sacrament and inviolability of marriage in Europe is given by the Church, and the authority for the sanction, the Church says, is from God. But I said that was only an outward formal sanction. The real true inner sanction for the inviolability of marriage as we see it in all countries where there is no Church religion, is the sense of honour, the law of the gentleman in the man and woman. Thus the real authority for the obligation to obey rules of moral conduct is the moral sense, the law of the gentleman, in man. The belief in God is, therefore, not necessary to make men obey rules of moral conduct.

It is this fact which has made sceptics like Voltaire and Tom Paine in the last century, and rationalists like Sir Hiram Maxim today, say, that the belief in God is a fraud or imposture invented by the founders of religion and kept up by priests. But that is a gross and preposterous libel. All great men, all men with great intellect, have all always believed in God. Confucius also believed in God, although he seldom spoke of it. Even Napoleon with his great, practical intellect believed in God. As the Psalmist says: "Only the fool_the man with a vulgar and shallow intellect_has said in his heart, ' There is no God. '" But the belief in God of man of great intellect is different from the belief in God of the mass of mankind. The belief in God of men of great intellect is that of Spinoza: a belief in the Divine Order of the Universe. Confucius said: "At fifty I knew the Ordinance of God" * _i.e., the Divine Order of the Universe. Men of great intellect have given different names to this Divine Order of the Universe. The German Fichte calls it the Divine idea of the Universe. In philosophical language in China it is called Tao_the Way. But whatever name men of great intellect may give to this Divine Order of the Universe, it is the knowledge of this Divine Order of the Universe which makes men of great intellect see the absolute necessity of obeying rules of moral conduct or moral laws which form part of that Divine Order of the Universe.

Thus, although the belief in God is not necessary to make men obey the rules of moral conduct, yet the belief in God is necessary to make men see the absolute necessity of obeying these rules. It is the knowledge of the absolute necessity of obeying the rules of moral conduct which enables and makes all men of great intellect follow and obey

those rules. Confucius says: "A man without a knowledge of the Ordinance of God, i.e., the Divine Order of the Universe, will not be able to be a gentleman or moral man."* But then, the mass of mankind, who have not great intellect, cannot follow the reasoning which leads men of great intellect to the knowledge of the Divine Order of the Universe and cannot therefore understand the absolute necessity of obeying moral laws. Indeed, as Matthew Arnold says:

"Moral rules, apprehended as ideas first, and then rigorously followed as laws are and must be for the sage only. The mass of mankind have neither force of intellect enough to apprehend them as ideas nor force of character enough to follow them strictly as laws. " It is for this reason that the philosophy and morality taught by Plato, Aristotle and Herbert Spencer have a value only for scholars.

But the value of religion is that it enables men, enables and can make even the mass of mankind who have not force of intellect nor force of character, to strictly follow and obey the rules of moral conduct . But then how and by what means does religion enable and make men do this? People imagine that religion enables and makes men obey the rules of moral conduct by teaching men the belief in God. But that, as I have shown you, is a great mistake. The one and sole authority which makes men really obey moral laws or rules of moral conduct is the moral sense, the law of the gentleman in them. Confucius said: "A moral law which is outside of man is not a moral law.

Even Christ in teaching His religion says: "The Kingdom of God is within you." I say, therefore, the idea which people have that religion makes men obey the rules of moral conduct by means of teaching them the belief in God is a mistake. Martin Luther says admirably in his commentary on the Book of Daniel: "A God is simply that where-on the human heart rests with trust, faith, hope and love. If the resting is right, then the God, too, is right; if the resting is wrong, then the God, too, is illusory. " This belief in God taught by religion is, therefore, only a resting, or, as I call it, a refuge. But then Luther says: "The resting, i.e. the belief in God, must be true, otherwise the resting, the belief, is illusory. In other words, the belief in God must be a true knowledge of God, a real knowledge of the Divine Order of the Universe, which, as we know, only men of great intellect can attain and which the mass of mankind cannot attain. Thus you see the belief in God taught by religion, which people imagine enables the mass of mankind to follow and obey the rules of moral conduct, is illusory. Men rightly call this belief in God_in the Divine Order of the Universe taught by religion_a faith, a trust, or, as I called it, a refuge. Nevertheless, this refuge, the belief in God, taught by religion, although illusory, an illusion, helps towards enabling men to obey the rules of moral conduct, for, as I said, the belief in God gives to men, to the mass of mankind, a sense of security and a sense of permanence in their existence. Goethe says: "Piety, (From-migkeit) i.e., the belief in God, taught by religion, is not an end in itself but only a means by which, through the complete and perfect calmness of mind and temper (Gemuethsruehe) which it gives, to attain the highest state of culture or human perfection." In other words, the belief in God taught by religion, by giving men a sense of security and a sense of permanence in their existence, calms them, gives them the necessary calmness of mind and temper to feel the law of the gentleman or moral sense in them, which, I say again, is the one and sole authority to make men really obey the rules of moral conduct or moral laws.

But if the belief in God taught by religion only helps to make men obey the rules of moral conduct, what is it then upon which Religion depends principally to make men, to make the mass of mankind, obey the rules of moral conduct? It is inspiration. Matthew Arnold truly says: "The noblest souls of whatever creed, the pagan Empedocles as well as the Christian Paul, have insisted on the necessity of inspiration, a living emotion to make moral actions perfect." Now what is this inspiration or living emotion in Religion, the paramount virtue of Religion upon which, as I said. Religion principally depends to make men, to enable and make even the mass of mankind obey the rules of moral conduct or moral laws?

You will remember I told you that the whole system of the teachings of Confucius may be summed up in one word; the Law of the Gentleman, the nearest equivalent for which in the European languages, I said, is moral law. Confucius calls this law of the gentleman a secret. * Confucius says: "The law of the gentleman is to be found everywhere, and yet it is a secret. " Nevertheless Confucius says:

"The simple intelligence of ordinary men and women of the people even can know something of this secret. The ignoble nature of ordinary men and women of the people, too, can carry out this law of the gentleman. " For this reason Goethe, who also knew this secret_the law of the gentleman of Confucius, called it an "open secret. "Now where and how did mankind come to discover this secret? Confucius said, you will remember, I told you that the recognition of the law of the gentleman began with the recognition of the relation of husband and wife_the true relation between a man and woman in marriage. Thus the secret, the open secret of Goethe, the law of the gentleman of Confucius, was first discovered by a man and woman. But now, a-gain, how did the man and the woman discover this secret_the law of the gentleman of Confucius?

I told you that the nearest equivalent in the European languages for the law of the gentleman of Confucius, is moral law. Now what is the difference between the law of the gentleman of Confucius and moral law_I mean the moral law or law of morality of the philosopher and moralist as distinguished from religion or law of morality taught by religious teachers. In order to understand this difference between the law of the gentleman of Confucius and the moral law of the philosopher and moralist, let us first find out the difference that there is between religion and the moral law of the philosopher and moralist. Confucius says: "The Ordinance of God is what we call the law of our being. To fulfil the law of our being is what we call the Moral Law. The Moral Law when refined and put into proper order is what we call Religion. " * Thus, according to Confucius, the difference between Religion and moral law_the moral law of the philosopher and moralist_is that Religion is a refined and well ordered moral law, a deeper or higher standard of moral law.

The moral law of the philosopher tells us we must obey the law of our being called Reason. But Reason, as it is generally understood, means our reasoning power, that slow process of mind or intellect which enables us to distinguish and recognise the definable properties and qualities of the outward forms of _ things. Reason, our reasoning power, therefore, enables us to see in moral relations only the definable properties and qualities, the mores, the morality, as it is rightly called, the outward manner and dead form, the body, so to speak, of right and wrong, or justice. Reason, our reasoning power alone, cannot make us see the undefinable, living, absolute essence of right and wrong, or justice, the life or soul, so to speak, of justice. For this reason Laotzu says: "The moral law that can be expressed in language is not the absolute moral law. The moral idea that can be defined with words is not the absolute moral idea. " * The moral law of the moralist again tells us we must obey the law of our being, called Conscience, i.e., our heart. But then, as the Wise Man in the Hebrew Bible says, there are many devices in a man's heart. Therefore, when we take Conscience, our heart, as the law of our being and obey it, we are liable and apt to obey, not the voice of what I have called the soul of justice, the indefinable absolute essence of justice, but the many devices in a man' s heart.

In other words Religion tells us in obeying the law of our being we must obey the true law of our being, not the animal or carnal law of our being called by St. Paul the law of the mind of the flesh, and very well defined by the famous disciple of Auguste Comte, Monsieur Littré, as the law of self preservation and reproduction; but the true law of our being called by St. Paul the law of the mind of the Spirit, and defined by Confucius as the law of the gentleman. In short, this true law of our being, which Religion tells us to obey, is what Christ calls the Kingdom of God within us. Thus we see, as Confucius says. Religion is a refined, spiritualized, well-ordered moral law, a deeper higher standard of moral law than the moral law of the philosopher and moralist. Therefore, Christ said: "Except your righteousness (or morality) exceed the righteousness (or morality) of the Scribes and Pharisees (ie., philosopher and moralist) ye shall in no wise enter into the Kingdom of Heaven. "

Now, like Religion, the law of the gentleman of Confucius is'also a refined, well-ordered moral law_a deeper higher standard of moral law than the moral law of the philosopher and moralist. The moral law of the philosopher and moralist tells us we must obey the law of our being called by the philosopher, Reason, and by the moralist, Conscience. But, like Religion, the law of the gentleman of Confucius tells us we must obey the true law of our being, not the law of being of the average man in the street or of the vulgar and impure person, but the law of being of what Emerson calls "the simplest and purest minds" in the world. In fact, in order to know what the law of being

of the gentleman is, we must first be a gentleman and have, in the words of Emerson, the simple and pure mind of the gentleman developed in him. For this reason Confucius says: "It is the man that can raise the standard of the moral law, and not the moral law that can raise the standard of the man. " *

Nevertheless Confucius says we can know what the law of the gentleman is, if we will study and try to acquire the fine feeling or good taste of the gentleman. The word in Chinese li (U) for good taste in the teaching of Confucius has been variously translated as ceremony, propriety, and good manners, but the word means really good taste. Now? this good taste, the fine feeling and good taste of a gentleman, when applied to moral action, is what, in European language, is called the sense of honour. In fact, the law of the gentleman of Confucius is nothing else but the sense of honour. This sense of honour, called by Confucius the law of the gentleman, is not like the moral law of the philosopher and moralist, a dry, dead knowledge of the form or formula of right and wrong, but like the Righteousness of the Bible in Christianity, an instinctive, living, vivid perception of the indefinable, absolute essence of right and wrong or justice, the life and soul of justice called Honour.

Now, we can answer the question: How did the man and woman who first recognised the relation of husband and wife, discover the secret, the secret of Goethe, the law of the gentleman of Confucius? The man and woman who discovered this secret, discovered it because they had the fine feeling, the good taste of the gentleman, called when applied to moral action the sense of honour, which made them see the undefinable, absolute essence of right and wrong or justice, the life and soul of justice called Honour. But then what gave, what inspired the man and woman to have this fine feeling, this good taste or sense of honour which made them see the soul of justice called Honour? This beautiful sentence of Joubert will explain it. Joubert says: "Les hommes ne sont justes qu' envers ceux qu' ils aiment. Man cannot be truly just to his neighbour unless he loves him. Therefore the inspiration which made the man and woman see what Joubert calls true justice, the soul of justice called Honour, and thus enable them to discover the secret_the open secret of Goethe, the law of the gentleman of Confucius _is Love_the love between the man and the woman which gave birth, so to speak, to the law of the gentleman; that secret, the possession of which has enabled mankind not only to build up society and civilisation, but also to establish religion_to find God. You can now understand Goethe's confession of faith which he puts into the mouth of Faust, beginning with the words:

Lifts not the Heaven its dome above? Doth not the firm-set Earth beneath us lie?

Now, I told you that it is not the belief in God taught by religion, which makes men obey the rules of moral conduct. What really makes men obey the rules of moral conduct is the law of the gentleman_the Kingdom of Heaven within us_to which religion appeals. Therefore the law of the gentleman is really the life of religion, whereas the belief in God together with the rules of moral conduct which religion teaches, is only the body, so to speak, of religion. But if the life of religion is the law of the gentleman, the soul of religion, the source of inspiration in religion, _is Love. This love does not merely mean the love between a man and a woman from whom mankind only first learn to know it. Love includes all true human affection, the feelings of affection between parents and children as well as the emotion of love and kindness, pity, compassion, mercy towards all creatures; in fact, all true human emotions contained in that Chinese word Jen(仁), for which the nearest equivalent in the European languages is, in the old dialect of Christianity, godliness, because it is the most godlike quality in man, and in modern dialect, humanity, love of humanity, or, in one word, love. In short, the soul of religion, the source of inspiration in religion is this Chinese word Jen, love_or call it by what name you like_which first came into the world as love between a man and a woman. This, then, is the inspiration in religion, the paramount virtue in religion, upon which religion, as I said, depends principally to make men, to enable and make even the mass of mankind obey the rules of moral conduct or moral laws which form part of the Divine Order of the universe. Confucius says: "The law of the gentleman begins with the recognition of husband and wife; but in its utmost reaches, it reigns and rules supreme over heaven and earth_the whole universe. "

We have now found the inspiration, the living emotion that is in religion. But this inspiration or living emotion in religion is found not only in religion_I mean Church religion. This inspiration or living emotion is known to everyone who has ever felt an impulse which makes him obey the rules of moral conduct above all considerations of

self-interest or fear. In fact, this inspiration or living emotion that is in religion is found in every action of men which is not prompted by the base motive of self-interest or fear, but by the sense of duty and honour. This inspiration or living emotion in religion, I say, is found not only in religion. But the value of religion is that the words of the rules of moral conduct which the founders of all great religions have left behind them have, what the rules of morality of philosophers and moralists have not, this inspiration or living emotion which, as Matthew Arnold says, lights up those rules and makes it easy for men to obey them. But this inspiration or living emotion in the words of the rules of conduct of religion again is found not only in religion. All the words of really great men in literature, especially poets, have also this inspiration or living emotion that is in religion. The words of Goethe, for instance, which I have just quoted, have also this inspiration or living emotion. But the words of great men in literature, unfortunately, cannot reach the mass of mankind because all great men in literature speak the language of educated men, which the mass of mankind cannot understand. The founders of all the great religions in the world have this advantage, that they were mostly uneducated men, and, speaking the simple language of uneducated men, can make the mass of mankind understand them. The real value, therefore, of religion, the real value of all the great religions in the world, is that it can convey the inspiration or living emotion which it contains even to the mass of mankind. In order to understand how this inspiration or living emotion came into religion, into all the great religions of the world, let us find out how these religions came into the world.

Now, the founders of all the great religions in the world, as we know, were all of them men of exceptionally or even abnormally strong emotional nature. This abnormally strong emotional nature made them feel intensely the emotion of love or human affection, which, as I have said, is the source of the inspiration in religion, the soul of religion. This intense feeling or emotion of love or human affection enabled them to see what I have called the indefinable, absolute essence of right and wrong or justice, the soul of justice which they called righteousness, and this vivid perception of the absolute essence of justice enabled them to see the unity of the laws of right and wrong or moral laws. As they were men of exceptionally strong e-motional nature, they had a powerful imagination, which unconsciously personified this unity of moral laws as an almighty supernatural Being. To this supernatural almighty Being, the personified unity of moral laws of their imagination, they gave the name of God, from whom they also believed that the intense feeling or emotion of love or human affection, which they felt, came. In this way, then, the inspiration or living emotion that is in religion came into religion; the inspiration that lights up the rules of moral conduct of religion and supplies the emotion or motive power needful for carrying the mass of mankind, along the straight and narrow way of moral conduct. But now the value of religion is not only that it has an inspiration or living emotion in its rules of moral conduct which lights up these rules and makes it easy for men to obey them. The value of religion, of all the great religions in the world, is that they have an organisation for awakening, exciting, and kindling the inspiration or living emotion in men necessary to make them obey the rules of moral conduct. This organisation in all the great religions of the world is called the Church.

The Church, many people believe, is founded to teach men the belief in God. But that is a great mistake. It is this great mistake of the Christian Churches in modern times which has made honest men like the late Mr. J. A. Froude feel disgusted with the modern Christian Churches. Mr. Froude says: "Many a hundred sermons have I heard in England on the mysteries of the faith, on the divine mission of the clergy, on apostolic succession, etc., but never one that I can recollect on common honesty, on those primitive commandments, 'Thou shalt not lie' and 'Thou shalt not steal.'" But then, with all deference to Mr. Froude, I think he is also wrong when he says here that the Church, the Christian Church, ought to teach morality. The aim of the establishment of the Church no doubt is to make men moral, to make men obey the rules of moral conduct such as "Thou shalt not lie" and "Thou shalt not steal." But the function, the true function of the Church in all the great religions of the world, is not to teach morality, but to teach religion, which, as I have shown you, is not a dead square rule such as "Thou shalt not lie" and "Thou shalt not steal," but an inspiration, a living emotion to make men obey those rules. The true function of the Church, therefore, is not to teach morality, but to inspire morality, to inspire men to be moral; in fact, to inspire and fire men with a living emotion which makes them moral. In other words, the Church in all the great religions of the world is an organisation, as I said, for awakening and kindling an inspiration or living emotion in men necessary to make them

obey the rules of moral conduct. But how does the Church awaken and kindle this inspiration in men?

Now, as we all know, the founders of all the great religions of the world not only gave an inspiration or living emotion to the rules of moral conduct which they taught, but they also inspired their immediate disciples with a feeling and emotion of unbounded admiration, love, and enthusiasm for their person and character. When the great teachers died, their immediate disciples, in order to keep up the feeling and emotion of unbounded admiration, love, and enthusiasm which they felt for their teacher, founded a Church. That, as we know, was the origin of the Church in all the great religions of the world. The Church thus awakens and kindles the inspiration or living emotion in men necessary to make them obey the rules of moral conduct, by keeping up, exciting and arousing, the feeling and emotion of unbounded admiration, love, and enthusiasm for the person and character of the first Teacher and Founder of religion which the immediate disciples originally felt. Men rightly call not only the belief in God, but the belief in religion a faith, a trust; but a trust in whom? In the first teacher and founder of their religion who, in Mo-hammedanism is called the Prophet and in Christianity the Mediator. If you ask a conscientious Mohammedan why he believes in God and obeys the rules of moral conduct, he will rightly answer you that he does it because he believes in Mohammed the Prophet. If you ask a conscientious Christian why he believes in God and obeys the rules of moral conduct, he will rightly answer you that he does it because he loves Christ. Thus you see the belief in Mohammed, the love of Christ, in fact the feeling and emotion, as I said of unbounded admiration, love, and enthusiasm for the first Teacher and Founder of religion which it is the function of the Church to keep up, excite and arouse in men_is the source of inspiration, the real power in all the great religions of the world by which they are able to make men, to make the mass of mankind obey the rules of moral conduct.

I have been a long way, but now I can answer the question which you asked me awhile ago. You asked me, you will remember, how without a belief in God which religion teaches_how can one make men, make the mass of mankind, follow and obey the moral rule which Confucius teaches in his State religion_the absolute duty of loyalty to the Emperor? I have shown you that it is not the belief in God taught by religion which really makes men obey moral rules or rules of moral conduct. I showed you that religion is able to make men obey the rules of moral conduct principally by means of an organisation called the Church which awakens and kindles in men an inspiration or living emotion necessary to make them to obey those rules. Now, in answer to your question I am going to tell you that the system of the teachings of Confucius, called Confucianism, the State Mencius, speaking of the two purest and most Christlike characters in Chinese history, said: "When men heard of the spirit and temper of Po-yi and Shu-ch*i, the dissolute ruffian became unselfish and the cowardly man had courage. " Mencius Bk. III, Part II, IX, religion in China, like the Church religion in other countries, makes men obey the rules of moral conduct also by means of an organisation corresponding to the Church of the Church religion in other countries. This organisation in the State religion of Confucianism in China is_the school. The school is the Church of the State religion of Confucius in China. As you know, the same word " chiao" in Chinese for religion is also the word for education. In fact, as the Church in China is the school, religion to the Chinese means education, culture. The aim and object of the school in China is not, as in modern Europe and America to-day, to teach men how to earn a living, how to make money, but, like the aim and object of the Church religion, to teach men to understand what Mr. Froude calls the primitive commandment, "Thou shalt not lie" and" Thou shall not steal" ;in fact, to teach men to be good. "Whether we provide for action or conversation, " says Dr. Johnson. "whether we wish to be useful or pleasing, the first requisite is the religious and moral knowledge of right and wrong; the next, an acquaintance with the history of mankind and with those examples which may be said to embody truth and prove by events the reasonableness of opinions. "

But then we have seen that the Church of the Church religion is able to make men obey the rules of moral conduct by awakening and kindling in men an inspiration or living emotion, and that it awakens and kindles this inspiration or living emotion principally by exciting and arousing the feeling and emotion of unbounded admiration, love, and enthusiasm for the character and person of the first Teacher and Founder of religion. Now, here there is a difference between the school_the Church of the State religion of Confucius in China_and the Church of the Church religion in other countries. The school_ the Church of the State religion in China_it is true, enables and makes men obey the rules of moral conduct, also like the Church of the Church religion, by awakening and kindling in men an inspiration

or living emotion. But the means which the school in China uses to awaken and kindle this inspiration or living emotion in men are different from those of the Church of the Church religion in other countries. The school, the Church of the State religion of Confucius in China, does not awaken and kindle this inspiration or living emotion in men by exciting and arousing the feeling of unbounded admiration, love, and enthusiasm for Confucius. Confucius in his lifetime did indeed inspire in his immediate disciples a feeling and emotion of unbounded admiration, love, and enthusiasm, and, after his death, has inspired the same feeling and emotion in all great men who have studied and understood him. But Confucius even while he lived did not inspire, and, after his death, has not inspired in the mass of mankind the same feeling and emotion of admiration, love, and enthusiasm which the founders of all the great religions in the world, as we know, have inspired. The mass of the population in China do not adore and worship Confucius as the mass of the population in Mohammedan countries adore and worship Mohammed, or as the mass of the population in European countries adore and worship Jesus Christ. In this respect Confucius does not belong to the class of men called founders of a religion. In order to be a founder of a religion in the European sense of the word, a man must have an exceptionally or even an abnormally strong emotional nature. Confucius indeed was descended from a race of kings, the house of Shang, the dynasty which ruled over China before the dynasty under which Confucius lived—a race of men who had the strong emotional nature of the Hebrew people. But Confucius himself lived under the dynasty of the House of Chow—a race of men who had the fine intellectual nature of the Greeks, a race of whom the Duke of Chou, the founder, as I told you, of the pre-Confucian religion or religion of the old dispensation in China was a true representative. Thus Confucius was, if I may use a comparison, a Hebrew by birth, with the strong emotional nature of the Hebrew race, who was trained in the best intellectual culture, who had all that which the best intellectual culture of the civilisation of the Greeks could give him. In fact, like the great Goethe in modern Europe, the great Goethe whom the people of Europe will one day recognise as the most perfect type of humanity, the real European which the civilisation of Europe has produced, as the Chinese have acknowledged Confucius to be the most perfect type of humanity, the real Chinaman, which the Chinese civilisation has produced—like the great Goethe, I say, Confucius was too educated and cultured a man to belong to the class of men called founders of religion. Indeed, even while he lived Confucius was not known to be what he was, except by his most intimate and immediate disciples.

The school in China, I say, the Church of the State religion of Confucius, does not awaken and kindle the inspiration or living emotion necessary to make men obey the rules of moral conduct by exciting and arousing the feeling and emotion of admiration, love, and enthusiasm for Confucius. But then how does the school in China awaken and kindle the inspiration or living emotion necessary to make man obey the rules of moral conduct? Confucius says: "In education the feeling and emotion is aroused by the study of poetry; the judgement is formed by the study of good taste and good manners; the education of the character is completed by the study of music." The school—the Church of the State religion in China—awakens and kindles the inspiration or living emotion in men necessary to make them obey the rules of moral conduct by teaching them poetry—in fact, the works of all really great men in literature, which, as I told you, has the inspiration or living emotion that is in the rules of moral conduct of religion. Matthew Arnold, speaking of Homer and the quality of nobleness in his poetry, says: "The nobleness in the poetry of Homer and of the few great men in literature can refine the raw, natural man, can transmute him." In fact, whatsoever things are true, whatsoever things are just, whatsoever things are pure, whatsoever things are lovely, whatsoever things are of good report, if there be any virtue and if there be any praise—the school, the Church of the State religion in China, makes men think on these things, and in making them think on these things, awakens and kindles the inspiration or living emotion necessary to enable and make them obey the rules of moral conduct.

But then you will remember I told you that the works of really great men in literature, such as the poetry of Homer, cannot reach the mass of mankind, because all great men in literature speak the language of educated men which the mass of mankind cannot understand. Such being the case, how then does the system of the teachings of Confucius, Confucianism, the State Religion in China, awaken and kindle in the mass of mankind, in the mass of the population in China, the inspiration or living emotion necessary to enable and make them obey the rules of moral conduct? Now, I told you that the organisation in the State Religion of Confucius in China corresponding to the Church of the

Church Religion in other countries, is the School. But that is not quite correct. The real organisation in the State Religion of Confucius in China corresponding exactly to the Church of the Church Religion in other countries is the Family. The real Church_of which the School is but an adjunct_the real and true Church of the State Religion of Confucius in China, is the Family with its ancestral tablet or chapel in every house, and its ancestral Hall or Temple in every village and town. I have shown you that the source of inspiration, the real motive power by which all the great Religions of the world are able to make men, to make the mass of mankind obey the rules of moral conduct, is the feeling and emotion of unbounded admiration, love and enthusiasm which it is the function of the Church to excite and arouse in men for the first Teachers and Founders of those Religions. Now the source of inspiration, the real motive power by which the State Religion of Confucius in China is able to make men, to enable and make the mass of the population in China obey the rules of moral conduct is the " Love for their father and mother." The Church of the Church Religion, Christianity, says: "Love Christ." The Church of the State Religion of Confucius in China_the ancestral tablet in every family_says "Love your father and your mother. " St. Paul says:_"Let every man that names the name of Christ depart from iniquity. " But the author of the book on Filial Piety(^), written in the Han dynasty, the counterpart of the Im.ita.tio Christi in China, says: "Let everyone who loves his father and mother depart from iniquity. " In short, as the essence, the motive power, the source of real inspiration of the Church religion, Christianity, is the Love of Christ, so the essence, the motive power, the source of real inspiration of the State Religion, Confucianism in China, is the "Love of father and mother"_ Filial Piety, with its cult of ancestor worship.

Confucius says: "To gather in the same place where our fathers before us have gathered; to perform the same ceremonies which they before us have performed; to play the same music which they before us have played: to pay respect to those whom they honoured; to love those who were dear to them; in fact, to serve them now dead as if they were living, and now departed, as if they were still with us, that is the highest achievement of Filial Piety." Confucius, further says:_"By cultivating respect for the dead, and carrying the memory back to the distant past, the good in the people will grow deep. " Cogitavi dies antiquas, et annos eternos in menti habui. That is how the State Religion in China, Confucianism, awakens and kindles in men, the inspiration or living emotion necessary to enable and make them obey the rules of moral conduct, the highest and most important of all these rules being the absolute Duty of Loyalty to the Emperor, just as the highest and most important rules of moral conduct in all the Great Religions of the world is fear of God. In other words, the Church Religion, Christianity, says:_ "Fear God and obey Him." But the State Religion of Confucius, or Confucianism, says:_ "Honour the Emperor and be loyal to him. " The Church Religion, Christianity, says:_ "If you want to fear God and obey Him, you must first love Christ. " The State Religion of Confucius, or Confucianism, say:_ "If you want to honour the Emperor and be loyal to him, you must first love your father and mother. "

Now I have shown you why it is that there is no conflict between the heart and the head in the Chinese civilisation for these last , years since Confucius'time. The reason why there is no such conflict is because the Chinese people, even the mass of the population in China, do not feel the need of Religion_I mean Religion in the European sense of the word; and the reason why the Chinese people do not feel the need of religion is because the Chinese people have in Confucianism something which can take the place of Religion. That something, I have shown you, is the principle of absolute Duty of Loyalty to the Emperor; the Code of Honour called Ming fen ta yi, which Confucius teaches in the State Religion which he has given to the Chinese nation. The greatest service, I said, which Confucius has done for the Chinese people is in giving them this State Religion in which he taught the absolute Duty of Loyalty to the Emperor.

Thus much I have thought it necessary to say about Confucius and what he has done for the Chinese nation, because it has a very important bearing upon the subject of our present discussion, the Spirit of the Chinese People. For I want to tell you and you will understand it from what I have told you, that a Chinaman, especially if he is an educated man, who knowingly forgets, gives up or throws away the Code of Honour, the Ming fen ta yi in the State Religion of Confucius in China, Which teaches the absolute Divine Duty of Loyalty to the Emperor or Sovereign to whom he has once given his alle-giance, such a Chinaman is a man who has lost the spirit of the Chinese people, the

spirit of his nation and race: he is no longer a real Chinaman.

Finally, let me shortly sum up what I want to say on the subject of our present discussion—the Spirit of the Chinese People or what is the real Chinaman. The real Chinaman, I have shown you, is a man who lives the life of a man of adult reason with the simple heart of a child, and the Spirit of the Chinese people is a happy union of soul with intellect. Now if you will examine the products of the Chinese mind in their standard works of art and literature, you will find that it is this happy union of soul with the intellect—which makes them so satisfying and delightful. What Matthew Arnold says of the poetry of Homer is true of all Chinese standard literature, that "it has not only the power of profoundly touching that natural heart of humanity, which it is the weakness of Voltaire that he cannot reach, but can also address the understanding with all Voltaire's admirable simplicity and rationality. "

Matthew Arnold calls the poetry of the best Greek poets the priestess of imaginative reason. Now the spirit of the Chinese people, as it is seen in the best specimens of the products of their art and literature, is really what Matthew Arnold calls imaginative reason. Matthew Arnold says:—"The poetry of later Paganism lived by the senses and understanding: the poetry of medieval Christianity lived by the heart and imagination. But the main element of the modern spirit's life, of the modern European spirit to-day, is neither the senses and understanding, nor the heart and imagination, it is the imaginative reason."

Now if it is true what Matthew Arnold says here that the element by which the modern spirit of the people of Europe to-day, if it would live right—has to live, is imaginative reason, then you can see how valuable for the people of Europe this Spirit of the Chinese people is,—this spirit which Matthew Arnold calls imaginative reason. How valuable it is, I say, and how important it is that you should study it, try to understand it, love it, instead of ignoring, despising and trying to destroy it.

But now before I finally conclude, I want to give you a warning. I want to warn you that when you think of this Spirit of the Chinese People, which I have tried to explain to you, you should bear in mind that it is not a science, philosophy, theosophy, or any "ism, " like the theosophy or "ism" of Madame Blavatsky or Mrs. Besant. The Spirit of the Chinese People is not even what you would call a mentality—an active working of the brain and mind. The Spirit of the Chinese People, I want to tell you, is a state of mind, a temper of the soul, which you cannot learn as you learn shorthand or Esperanto—in short, a mood, or in the words of the poet, a serene and blessed mood.

Now last of all I want to ask your permission to recite to you a few lines of poetry from the most Chinese of the English poets, Wordsworth, which better than anything I have said or can say, will describe to you the serene and blessed mood which is the Spirit of the Chinese People. These few lines of the English poet will put before you in a way I cannot hope to do, that happy union of soul with intellect in the Chinese type of humanity, that serene and blessed mood which gives to the real Chinaman his inexpressible gentleness. Wordsworth in his lines on Tintern Abbey says:—

"... nor less, I trust
To them I may have owed another gift
Of aspect more sublime: that blessed mood
In which the burthen of the mystery,
In which the heavy and the weary weight
Of all this unintelligible world,
Is lightened:—that serene and blessed mood
In which the affections gently lead us on, —

Until, the breath of this corporeal frame
And even motion of our human blood
Almost suspended, we are laid asleep
In body, and become a living soul:

While with an eye made quiet by the power
Of harmony, and the deep power of joy,
We see into the life of things. "

The serene and blessed mood which enables us to see into the life of things: that is imaginative reason, that is the Spirit of the Chinese People.

Heretics/7

←Chapter 6: Christmas and the Aesthetes ..J by Gilbert Keith Chesterton

Chapter 8: The Mildness of the the Yellow Press→

Chapter 7: Omar and the Sacred Vine

A new morality has burst upon us with some violence in connection with the problem of strong drink; and enthusiasts in the matter range from the man who is violently thrown out at 12.30, to the lady who smashes American bars with an axe. In these discussions it is almost always felt that one very wise and moderate position is to say that wine or such stuff should only be drunk as a medicine. With this I should venture to disagree with a peculiar ferocity. The one genuinely dangerous and immoral way of drinking wine is to drink it as a medicine. And for this reason, If a man drinks wine in order to obtain pleasure, he is trying to obtain something exceptional, something he does not expect every hour of the day, something which, unless he is a little insane, he will not try to get every hour of the day. But if a man drinks wine in order to obtain health, he is trying to get something natural; something, that is, that he ought not to be without; something that he may find it difficult to reconcile himself to being without. The man may not be seduced who has seen the ecstasy of being ecstatic; it is more dazzling to catch a glimpse of the ecstasy of being ordinary. If there were a magic ointment, and we took it to a strong man, and said, "This will enable you to jump off the Monument," doubtless he would jump off the Monument, but he would not jump off the Monument all day long to the delight of the City. But if we took it to a blind man, saying, "This will enable you to see," he would be under a heavier temptation. It would be hard for him not to rub it on his eyes whenever he heard the hoof of a noble horse or the birds singing at daybreak. It is easy to deny one's self festivity; it is difficult to deny one's self normality. Hence comes the fact which every doctor knows, that it is often perilous to give alcohol to the sick even when they need it. I need hardly say that I do not mean that I think the giving of alcohol to the sick for stimulus is necessarily unjustifiable. But I do mean that giving it to the healthy for fun is the proper use of it, and a great deal more consistent with health.

The sound rule in the matter would appear to be like many other sound rules--a paradox. Drink because you are happy, but never because you are miserable. Never drink when you are wretched without it, or you will be like the grey-faced gin-drinker in the slum; but drink when you would be happy without it, and you will be like the laughing peasant of Italy. Never drink because you need it, for this is rational drinking, and the way to death and hell. But drink because you do not need it, for this is irrational drinking, and the ancient health of the world.

For more than thirty years the shadow and glory of a great Eastern figure has lain upon our English literature. Fitzgerald's translation of Omar Khayyam concentrated into an immortal poignancy all the dark and drifting hedonism of our time. Of the literary splendour of that work it would be merely banal to speak; in few other of the books of men has there been anything so combining the gay pugnacity of an epigram with the vague sadness of a song. But of its philosophical, ethical, and religious influence which has been almost as great as its brilliancy, I should like to say a word, and that word, I confess, one of uncompromising hostility. There are a great many things which might be said against the spirit of the Rubaiyat, and against its prodigious influence. But one matter of indictment towers ominously above the rest-- a genuine disgrace to it, a genuine calamity to us. This is the terrible blow that this great poem has struck against sociability and the joy of life. Some one called Omar "the sad, glad old Persian." Sad he is; glad he is not, in any sense of the word whatever. He has been a worse foe to gladness than the Puritans.

A pensive and graceful Oriental lies under the rose-tree with his wine-pot and his scroll of poems. It may seem strange that any one's thoughts should, at the moment of regarding him, fly back to the dark bedside where the doctor doles out brandy. It may seem stranger still that they should go back to the grey wastrel shaking with gin in Houndsditch. But a great philosophical unity links the three in an evil bond. Omar Khayyam's wine-bibbing is bad, not because it is wine-bibbing. It is bad, and very bad, because it is medical wine-bibbing. It is the drinking of a man who drinks because he is not happy. His is the wine that shuts out the universe, not the wine that reveals it. It is not

poetical drinking, which is joyous and instinctive; it is rational drinking, which is as prosaic as an investment, as unsavoury as a dose of camomile. Whole heavens above it, from the point of view of sentiment, though not of style, rises the splendour of some old English drinking-song--

"Then pass the bowl, my comrades all,
And let the zider vlow."

For this song was caught up by happy men to express the worth of truly worthy things, of brotherhood and garrulity, and the brief and kindly leisure of the poor. Of course, the great part of the more stolid reproaches directed against the Omarite morality are as false and babyish as such reproaches usually are. One critic, whose work I have read, had the incredible foolishness to call Omar an atheist and a materialist. It is almost impossible for an Oriental to be either; the East understands metaphysics too well for that. Of course, the real objection which a philosophical Christian would bring against the religion of Omar, is not that he gives no place to God, it is that he gives too much place to God. His is that terrible theism which can imagine nothing else but deity, and which denies altogether the outlines of human personality and human will.

"The ball no question makes of Ayes or Noes,
But Here or There as strikes the Player goes;
And He that tossed you down into the field,
He knows about it all--he knows--he knows."

A Christian thinker such as Augustine or Dante would object to this because it ignores free-will, which is the valour and dignity of the soul. The quarrel of the highest Christianity with this scepticism is not in the least that the scepticism denies the existence of God; it is that it denies the existence of man.

In this cult of the pessimistic pleasure-seeker the Rubaiyat stands first in our time; but it does not stand alone. Many of the most brilliant intellects of our time have urged us to the same self-conscious snatching at a rare delight. Walter Pater said that we were all under sentence of death, and the only course was to enjoy exquisite moments simply for those moments' sake. The same lesson was taught by the very powerful and very desolate philosophy of Oscar Wilde. It is the *carpe diem* religion; but the *carpe diem* religion is not the religion of happy people, but of very unhappy people. Great joy does, not gather the rosebuds while it may; its eyes are fixed on the immortal rose which Dante saw. Great joy has in it the sense of immortality; the very splendour of youth is the sense that it has all space to stretch its legs in. In all great comic literature, in "Tristram Shandy" or "Pickwick", there is this sense of space and incorruptibility; we feel the characters are deathless people in an endless tale.

It is true enough, of course, that a pungent happiness comes chiefly in certain passing moments; but it is not true that we should think of them as passing, or enjoy them simply "for those moments' sake." To do this is to rationalize the happiness, and therefore to destroy it. Happiness is a mystery like religion, and should never be rationalized. Suppose a man experiences a really splendid moment of pleasure. I do not mean something connected with a bit of enamel, I mean something with a violent happiness in it--an almost painful happiness. A man may have, for instance, a moment of ecstasy in first love, or a moment of victory in battle. The lover enjoys the moment, but precisely not for the moment's sake. He enjoys it for the woman's sake, or his own sake. The warrior enjoys the moment, but not for the sake of the moment; he enjoys it for the sake of the flag. The cause which the flag stands for may be foolish and fleeting; the love may be calf-love, and last a week. But the patriot thinks of the flag as eternal; the lover thinks of his love as something that cannot end. These moments are filled with eternity; these moments are joyful because they do not seem momentary. Once look at them as moments after Pater's manner, and they become as cold as Pater and his style. Man cannot love mortal things. He can only love immortal things for an instant.

Pater's mistake is revealed in his most famous phrase. He asks us to burn with a hard, gem-like flame. Flames are never hard and never gem-like--they cannot be handled or arranged. So human emotions are never hard and never gem-like; they are always dangerous, like flames, to touch or even to examine. There is only one way in which our passions can become hard and gem-like, and that is by becoming as cold as gems. No blow then has ever been struck

at the natural loves and laughter of men so sterilizing as this *carpe diem* of the aesthetes. For any kind of pleasure a totally different spirit is required; a certain shyness, a certain indeterminate hope, a certain boyish expectation. Purity and simplicity are essential to passions-- yes even to evil passions. Even vice demands a sort of virginity.

Omar's (or Fitzgerald's) effect upon the other world we may let go, his hand upon this world has been heavy and paralyzing. The Puritans, as I have said, are far jollier than he. The new ascetics who follow Thoreau or Tolstoy are much livelier company; for, though the surrender of strong drink and such luxuries may strike us as an idle negation, it may leave a man with innumerable natural pleasures, and, above all, with man's natural power of happiness. Thoreau could enjoy the sunrise without a cup of coffee. If Tolstoy cannot admire marriage, at least he is healthy enough to admire mud. Nature can be enjoyed without even the most natural luxuries. A good bush needs no wine. But neither nature nor wine nor anything else can be enjoyed if we have the wrong attitude towards happiness, and Omar (or Fitzgerald) did have the wrong attitude towards happiness. He and those he has influenced do not see that if we are to be truly gay, we must believe that there is some eternal gaiety in the nature of things. We cannot enjoy thoroughly even a *pas-de-quatre* at a subscription dance unless we believe that the stars are dancing to the same tune. No one can be really hilarious but the serious man. "Wine," says the Scripture, "maketh glad the heart of man," but only of the man who has a heart. The thing called high spirits is possible only to the spiritual. Ultimately a man cannot rejoice in anything except the nature of things. Ultimately a man can enjoy nothing except religion. Once in the world's history men did believe that the stars were dancing to the tune of their temples, and they danced as men have never danced since. With this old pagan eudaemonism the sage of the *Rubaiyat* has quite as little to do as he has with any Christian variety. He is no more a Bacchanal than he is a saint. Dionysus and his church was grounded on a serious *joie-de-vivre* like that of Walt Whitman. Dionysus made wine, not a medicine, but a sacrament. Jesus Christ also made wine, not a medicine, but a sacrament. But Omar makes it, not a sacrament, but a medicine. He feasts because life is not joyful; he revels because he is not glad. "Drink," he says, "for you know not whence you come nor why. Drink, for you know not when you go nor where. Drink, because the stars are cruel and the world as idle as a humming-top. Drink, because there is nothing worth trusting, nothing worth fighting for. Drink, because all things are lapsed in a base equality and an evil peace." So he stands offering us the cup in his hand. And at the high altar of Christianity stands another figure, in whose hand also is the cup of the vine. "Drink" he says "for the whole world is as red as this wine, with the crimson of the love and wrath of God. Drink, for the trumpets are blowing for battle and this is the stirrup-cup. Drink, for this my blood of the new testament that is shed for you. Drink, for I know of whence you come and why. Drink, for I know of when you go and where."

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PSYCHOLOGY (ψυχή, the mind or soul, and λόγος, theory), the science of mind, which can only be more strictly defined by an analysis of what mind means.

I. In the several natural sciences the scope and subject-matter of each are so evident that little preliminary discussion is called for. But with psychology, however much it is freed ~ from metaphysics, this is different. It is indeed ordinarily assumed that its subject-matter can be at once defined. It is what you can perceive by consciousness or reflection or the internal sense, says one, just as the subject-matter of optics is what you can perceive by sight. Or, psychology is the science of the phenomena of mind, we are told again, and is thus marked off from the physical sciences, which treat only of the phenomena of matter. But, whereas nothing is simpler than to distinguish between seeing and hearing, or between the phenomena of heat and the phenomena of gravitation, a very little reflection may convince us that we cannot in the same fashion distinguish internal from external sense, or make clear to ourselves what we mean by phenomena of mind as distinct from phenomena of matter.

To every sense there corresponds a sense-organ; the several senses are distinct and independent, so that no one sense can add, ~t dt0 or alter the materials of another: the possession of five senses, e.g. furnishing no data as to the character of a possible sixth. Moreover, sense-impressions are passively received and occur in the first instance without regard to the feeling or volition of the recipient and without any manner of relation to the contents of consciousness at the moment. Now such a description will apply but very partially to the so-called internal sense. For we do not by means of it passively receive impressions differing from all previous presentations, as the sensations of color for one couched differ from all he has experienced before: the new facts consist rather in the recognition of certain relations among pre-existing presentations, I.e. are due to our mental activity and not to a special mode of what has been called our sensitivity. For when we taste we cannot hear that we taste, when we see we cannot smell that we see; but when we taste we may be conscious that we taste, when we hear we may be conscious that we hear. Moreover, the facts so ascertained are never independent of feeling and volition and of the contents of consciousness at the time, as true sensations are. Also if we consult the physiologist we learn that there is no evidence of any organ or centre that could be regarded as the physical basis of this inner sense; and, if self-consciousness alone is temporarily in abeyance and a man merely beside himself, such state of delirium has little analogy to the functional blindness or deafness that constitutes the temporary suspension of sight or hearing.

To the concept of an internal perception or observation the preceding objections do not necessarily apply that is to say, this concept may be so defined that they need not. But then in proportion as we escape the change of assuming a special sense which furnishes the material for such perception or observation, in that same proportion are we compelled to seek for some other mode of distinguishing its subject-matter. For, so far as the mere mental activity of perceiving or observing is concerned, it is not easy to see any essential difference in the process whether what is observed be psychical or physical. It is quite true that the so-called psychological observation is more difficult, because the facts observed are often less definite and less persistent, and admit less of actual isolation than physical facts do; but the process of recognizing similarities or differences, the dangers of mal-observation or nonobservation, are not materially altered on that account. It may be further allowed that there is one difficulty peculiarly felt in psychological observation, the one most inaccurately expressed by saying that here the observer and the observed are one. But this difficulty is surely in the first instance due to the very obvious fact that our powers of attention are limited, so that we cannot alter the distribution of attention at any moment without altering the contents of

consciousness at that moment. Accordingly, where there are no other ways of surmounting this difficulty, the psychological observer must either trust to representations at a later time, or he must acquire the power of taking momentary glances at the psychological aspects of the phase of consciousness in question. And this one with any aptitude for such studies can do with so slight a diversion of attention as not to disturb very seriously either the given state or that which immediately succeeds it. But very similar difficulties have to be similarly met by physical observers in certain special cases, as, e.g. in observing and registering the phenomena of solar eclipse; and similar aptitudes in the distribution of attention have to be acquired, say, by extempore orators or skilful surgeons. Just as little, then, as there is anything that we can with propriety call an inner sense, just so little can we find in the process of inner perception any satisfactory characteristic of the subject-matter of psychology. The question still is: What is it that is perceived or observed? and the readiest answer of course is: Internal experience as distinguished from external, what, takes place in the mind as distinct from what takes place without.

This answer, it must be at once allowed, is adequate for most purposes, and a great deal of excellent psychological work has been done without ever calling it in question. But the distinction between internal and external experience is not one that can be drawn from the standpoint of psychology, at least not at the outset. From this standpoint it appears to be either (1) inaccurate or (2) not extra-psychological. As to (1), the boundary between the internal and the external was, no doubt, originally the surface of the body, with which the subject or self was identified; and in this sense the terms are of course correctly used. For a thing may, in the same sense of the word, be in one space and therefore not in another; but we express no intelligible relation if we speak of two things as being one in a given room and the other in last week. Any one is at liberty to say if he choose that a certain thing is in his mind; but if in this way he distinguishes it from something else not in his mind, then to be intelligible this must imply one of two statements—either that the something else is actually or possibly in some other mind, or, his own mind being alone considered, that at the time the something else does not exist at all. Yet, evident as it seems that the correlatives in and not-in must apply to the same category, whether space, time, presentation (or non-presentation) to a given subject, and so forth, we still find psychologists more or less consciously confused between internal, meaning presented in the psychological sense, and external, meaning not presented but corporeal or oftener extra-corporeal. But (2), when used to distinguish between presentations (some of which, or some relations of which with respect to others, are called internal, and others or other relations, external), these terms are at all events accurate; only then they cease to mark off the psychological from the extra-psychological, inasmuch as psychology has to analyse this distinction and to exhibit the steps by which it has come about. But we have still to examine whether the distinction of phenomena of Matter and phenomena of Mind furnishes a better dividing line than the distinction of internal and external.

A phenomenon, as commonly understood, is what is manifest, sensible, evident, the implication being that there are eyes to see, ears to hear, and so forth in other words, that there is a presentation to a subject; and wherever there is presentation to a subject it will be allowed that we are in the domain of psychology. But in talking of physical phenomena we, in a way, abstract from this fact of presentation. Though consciousness should cease, the physicist would consider the sum total of objects to remain the same: the orange would still be round, yellow and fragrant as before. For the physicist whether aware of it or not has taken up a position which for the present may be described by saying that phenomenon with him means appearance or manifestation, or as we had better say—object, not for a concrete individual, but rather for what Kant called *Bewusstsein überhaupt*, or, as some render it, the objective consciousness, i.e. for an imaginary subject freed from all the limitations of actual subjects save that of depending on sensibility for the material of experience. However, this is not all, for, as we shall see presently, the psychologist also occupies this position; at least if he does not his is not a true science. But, further, the physicist leaves out of sight altogether the facts of attention, feeling, and so forth, all of which actual presentation entails. From the psychological point of view, on the other hand, the removal of the subject removes not only all such facts as attention and feeling, but all presentation or possibility of presentation whatever. Surely, then, to call a certain object, when we abstract from its presentation, a material phenomenon, and to call the actual presentation of this object a mental phenomenon, is a clumsy and confusing way of representing the difference between the two points of

view. For the terms material and mental seem to imply that the two so-called phenomena have nothing in common, whereas the same object is involved in both, while the term phenomenon implies that the point of view is in each case the same, when in truth what is emphasized by the one the other ignores.

2. Paradoxical though it may be, we must then conclude that psychology cannot be defined by reference to a special subject-standpoint matter as such concrete sciences, for example, as of psycho-mineralogy and botany can be; and, since it deals in kind, some sort with the whole of experience, it is obviously not an abstract science in any ordinary sense of that term. To be characterized at all, therefore, apart from metaphysical assumptions, it must be characterized by the standpoint from which this experience is viewed. It is by way of expressing this that widely different schools of psychology define it as subjective, all other positive sciences being distinguished as objective. But this seems scarcely more than a first approximation to the truth, and, as we have seen incidentally, is apt to be misleading. The distinction rather is that the standpoint of psychology is what is sometimes termed individualistic, that of the so-called object-sciences being universalistic, both alike being objective in the sense of being true for all, consisting of what Kant would call judgments of experience. For psychology is not a biography in any sense, still less a biography dealing with idiosyncrasies, and in an idiom having an interest and a meaning for one subject only, and incommunicable to any other. Locke, Berkeley and Hume have been severely handled because they regarded the critical investigation of knowledge as a psychological problem, and set to work to study the individual mind simply for the sake of this problem. But none the less their standpoint was the proper one for the science of psychology itself; and, however surely their philosophy was foredoomed to a collapse, there is no denying a steady psychological advance as we pass from Locke to Hume and his modern representatives. By *idea* Locke tells us he means whatsoever is the object of the understanding when a man thinks (i.e. is conscious), and having, as it were, shut himself within such a circle of ideas he finds himself powerless to explain his knowledge of a world that is assumed to be independent of it; but he is able to give a very good account of some of these ideas themselves. He cannot justify his belief in the world of things whence certain of his simple ideas were conveyed any more than Robinson Crusoe could have explored the continents whose products were drifted to his desert island, though he might perhaps survey the island itself well enough. Berkeley accordingly, as Professor Fraser happily puts it, abolished Lockes hypothetical outer circle. Thereby he made the psychological standpoint clearer than everhence the truth of Humes remark, that Berkeleys arguments admit of no answer; at the same time the epistemological problem was as hopeless as beforehence again the truth of Humes remark that those arguments produced no conviction. Of all the facts with which he deals, the psychologist may truly say that their *esse* is *percipi*, inasmuch as all his facts are facts of presentation, are ideas in Lockes sense, or objects which imply a subject. Before we became conscious there was no world for us ceases too; had we been born blind, the world would for us have had no color; if deaf, it would have had no sounds; if idiotic, it would have had no meaning. Psychology, then, never transcends the limits of the individual. But now, though this Berkeleyan standpoint is the standpoint of psychology, psychology is not pledged to the method employed by Berkeley and by Locke. Psychology may be individualistic without being confined exclusively to the introspective method. There is nothing to hinder the psychologist from employing materials furnished by his observations of other men, of infants, of the lower animals, or of the insane; nothing to hinder him taking counsel with the philologist or even the physiologist, provided always he can show the psychological bearings of those facts which are not directly psychological. The standpoint of psychology is individualistic; by whatever methods, from whatever sources its facts are ascertained, they must be regarded as having place in, or as being part of, some ones consciousness or experience. In this sense, i.e. as presented to an individual, the whole choir of heaven and furniture of earth may belong to psychology, but otherwise they are psychological nonentities. In defining psychology, however, the propriety of avoiding the terms mind or soul, which it implies, is widely acknowledged; mind because of the disastrous dualism of mind and matter, soul because of its metaphysical associations. Hence F. A. Langes famous mot: modern psychology is *Psychologie ohne Seele*. But consciousness, which is the most frequent substitute, is continually confused with self-consciousness, and so is apt to involve undue stress on the subjective as opposed to the objective, as well as to emphasize the cognitive as against the conative factors. Experience, it is maintained, is a

more fundamental and less ambiguous term. Psychology then is the science of individual experience. The problem of psychology, in dealing with this complex subject-matter, is in general first, to ascertain its ultimate constituents, and, secondly, to determine and explain the laws of their interaction.

General Analysis.

3. In seeking to make a first general analysis of experience, we must start from individual human experience, for this alone is what we immediately know. From this standpoint we must endeavour to determine the irreducible minimum involved, so that our concept may apply to all lower forms of experience as well. Etymologically experience connotes practical acquaintance, efficiency and skill as the result of trial usually repeated trial and effort. Many recent writers on comparative psychology propose to make evidence of experience in this sense the criterion of psychical life. The ox knoweth his owner and the ass his masters crib, and so would pass muster; but the ant and the bee, who are said to learn nothing, would, in spite of their marvellous instinctive skill, be regarded as mere automata in Descartes' sense. That this criterion is decisive on the positive side will hardly be denied; the question how far it is available negatively we must examine later on. But it will be well first briefly to note some of the implications of this positive criterion: Experience is the process of becoming expert by experiment. The chief implication, no doubt, is that which in psychological language we express as the duality of subject and object. Looking at this relation as the comparative psychologist has to do, we find that it tallies in the main with the biological relation of organism and environment. The individuality of the organism corresponds to, though it is not necessarily identical with, the psychological subject, while to the environment and its changes corresponds the objective continuum or *totum objectivum* as we shall call it. This correspondence further helps us to see still more clearly the error of regarding individual experience as wholly subjective, and at the same time helps us to find some measure of truth in the naive realism of Common Sense. As these points have an important bearing on the connection of psychology and epistemology, we may attempt to elucidate them more fully.

Though it would be unwarrantable to resolve a thing, as some have done, into a mere meeting-point of relations, yet it is perhaps as great a mistake to assume that it can be anything determinate in itself apart from all relations to other things. By the physicist this mistake can hardly be made: for him action and reaction are strictly correlative: a material system can do no work on itself. For the biologist, again, organism and environment are invariably complementary. But in psychology, when presentations are regarded as subjective modifications, we have this mistaken isolation in a glaring form, and all the hopeless difficulties of what is called subjective idealism are the result. Subjective modifications no doubt are always one constituent of individual experience, but always as correlative to objective modifications or change in the objective continuum. If experience were throughout subjective, not merely would the term subjective itself be meaningless, not merely would the conception of the objective never arise, but the entirely impersonal and intransitive process that remained, though it might be described as absolute becoming, could not be called even solipsism, least of all real experience. Common Sense, then, is right in positing, wherever experience is inferred, (1) a factor answering to what we know as self, and (2) another factor answering to what each of us knows as the world. It is further right in regarding the world which each one immediately knows as a colored, sounding, tangible world, more exactly as a world of sensible qualities. The assumption of naive realism, that the world as each one knows it exists as such independently of him, is questionable. But this assumption goes beyond individual experience, and does not, indeed could not, arise at this standpoint.

Answering to the individuality and unity of the subjective factor, there is a corresponding unity and individuality of the objective. Every Ego has its correlative Non-Ego, whence in the end such familiar saying as *quot liomines tot sententiac* and the like. The doctrine of Leibnitz, that each monad is a living mirror... representative of the universe according to its point of view, will, with obvious reservations, occur to many as illustrative here. In particular, Leibnitz emphasized one point on which psychology will do well to insist. Since the world is a plenum, he begins, all things are connected together and everybody acts upon every other, more or less, according to their distance, and is affected by their reaction; hence each monad is a living mirror, &c. Subject and Object, or (as it will be clearer in this connection to say) Ego and Non-Ego, are then not merely logically a universe, but actually tile universe, so that,

as Leibnitz put it, He who sees all could read in each what is happening everywhere (Monadology, 61). Though every individual experience is unique, yet the more Ego1 is similar to Ego2 the more their complementaries Non-Ego1, NonEgo2 are likewise similar; much as two perspective projections are more similar the more adjacent their points of sight, and more similar as regards a given position the greater its distance from both points. No doubt we must also make a very extensive use of the hypothesis of subconsciousness, just as Leibnitz did, before we can say that the universe is the objective factor in each and every individuals experience. But we shall have in any case to allow that, besides the strictly limited content rising above the threshold of consciousness, there is an indefinite extension of the presentational continuum beyond it. And the Leibnitzian monadology helps us also to clear up a certain confusion that besets terms such as content of consciousness, or finite centre of experience a barbarous but intelligible phrase that has recently appeared the confusion, that is, with a mosaic of mutually exclusive areas, or with a scheme of mutually exclusive logical compartments. Consciousnesses, though in one respect mutually exclusive, do not limit each other in this fashion. For there is a sense in which all individual experiences are absolutely the same, though relatively different as to their point of view, i.e. as to the manner in which for each the same absolute whole is sundered into subjective and objective factors.

This way of looking at the facts of mind helps, again, to dispel the obscurity investing such terms as subjective, intersubjective, transsubjective and objective, as these occur in psychological or epistemological discussions. For the psychologist must maintain that no experience is merely subjective: it is only epistemologists (notably Kant) who so describe individual experience, because objects experienced in their concrete particularity pertain, like so many idiosyncrasies, to the individual alone. In contrast with this, epistemologists then describe universal experience the objects in which are the same for every experient as objective experience par excellence. And so has arisen the time-honored opposition of Sense-knowledge and Thought-knowledge: so too has arisen the dualism of Empiricism and Rationalism, which Kant sought to surmount by logical analysis. It is in the endeavour to supplement this analysis by a psychological genesis that the terms intersubjective and transsubjective prove useful. The problem for psychology is to ascertain the successive stages in the advance from the one form of experience or knowledge to the other. When ten men look at the sun or the moon, said Reid, they all see the same individual object. But according to Hamilton this statement is not philosophically correct. .. the truth is that each of these persons sees a different object.. .. It is not by perception but by a process of reasoning that we connect the objects of sense with existences beyond the sphere of immediate fact. Now it is to this beyond that the term transsubjective is applied, and the question before us is: How do individual subjects thus get beyond the immanence or immediacy with which all experience begins? By a process of reasoning) it is said. But it is at least true in fact, whether necessarily true or not, that such reasoning is the result of social intercourse. Further, it will be generally allowed that Kants Analytik, before referred to, has made plain the insufficiency of merely formal reasoning to yield the categories of Substance, Cause and End, by which we pass from mere perceptual experience to that wider experience which transcends it. And psychology, again, may claim to have shown that in fact these categories are the result of that reflective self-consciousness to which social intercourse first gives rise.

But such intercourse, it has been urged, presupposes the common ground between subject and subject which it is meant to explain. How, it is asked, if every subject is confined to his own unique experience, does this intersubjective intercourse ever arise? If no progress towards intellectual synthesis were possible before intersubjective intercourse began, such intercourse, as presupposing something more than immediate sense-knowledge, obviously never could begin.³ Let us illustrate by an analogy which Leibnitzs association of experience with a point of view at once suggests. If it were possible for the terrestrial astronomer to obtain observations of the heavens from astronomers in the neighboring stars, he would be able to map in three dimensions constellations which now he can only represent in two. But unless he had ascertained unaided the heliocentric parallax of these neighboring stars, he would have no means of distinguishing them as near from the distant myriads besides, or of understanding the data he might receive; and unless he had first of all determined the still humbler geocentric parallax of our sun, those heliocentric parallaxes would have been unattainable. So in like manner we may say intersubjective parallax presupposes what we may call subjective parallax, and even this the psychological

duality of object and subject. But such subjective parallax or acquaintance with other like selves is the direct outcome of the extended range in time which memory proper secures; and when in this way self has become an object, resembling objects become other selves or ejects, to adopt with slight modification a term originated by the late W. K. Clifford. We may be quite sure that his faithful dog is as little of a solipsist as the noble savage whom he accompanies. Indeed, the rudiments of the social factor are, if we may judge by biological evidence, to be found very early. Sexual union in the physiological sense occurs in all but the lowest Metazoa, pairing and courtship are frequent among insects, while among the cold-blooded fishes the battle of the stickleback with his rivals, his captivating manoeuvres to lead the female to the nest which he has built, his mad dance of passion around her, and his subsequent jealous guarding of the nest, have often been observed and admired. Among birds and mammals And it is precisely for want of this mediation that Kants two stems of human knowledge, which perhaps may spring from a common but to us unknown root, leave epistemology still more or less hampered with the old dualism of sense and understanding.

Evolution of Sex, by Geddes and Thomson, 1st ed. p. 265.

we find not merely that these psychological aspects of sexual life are greatly extended, but we find also prolonged education of offspring by parents and imitation of the parents by offspring. Even language, or, at any rate the linguistic impulse, is not wholly absent among brutes.^f Thus as the sensori-motor adjustments of the organism to its environment generally advance in complexity and range, there is a concomitant advance in the variety and intimacy of its relations specially with individuals of its kind. It is therefore reasonable to assume no discontinuity between phases of experience that for the individual are merely objective and phases that are also ejective as well; and once the ejective level is attained, some interchange of experience is possible. So disappears the great gulf fixed betwixt subjective or individual and intersubjective or universal experience by rival systems in philosophy.

4. From this preliminary epistemological discussion we may pass on to the psychological analysis of experience itself. As to this, there is in the main substantial agreement; the elementary facts of mind cannot be expressed in less than three propositions I feel somehow, I know something, I do something. But here at once there arises an important question, viz. What after all are we to understand by the subject of these propositions? The proposition I feel somehow is not equivalent to I know that I feel somehow. To identify the two would be to confound consciousness with self-consciousness. We are no more confined to our own immediate observations here than elsewhere; but the point is that, whether seeking to analyse ones own consciousness or to infer that of a lobster, whether discussing the association of ideas or the expression of emotions, there is always an individual self or subject in question. It is not enough to talk of feelings or volitions:

what we mean is that some individual man or worm feels, strives, acts, thus or thus. Obvious as this may seem, it has been frequently either forgotten or gainsaid. It has been forgotten among details or through the assumption of a medley of faculties, each treated as an individual in turn, and among which the real individual was lost. Or it has been gainsaid, because to admit that all psychological facts pertain to an experiencing subject or experient seemed to imply that they pertained to a particular spiritual substance, which was simple, indestructible, and so forth; and it was manifestly desirable to exclude such assumptions from psychology as a science aiming only at a systematic exposition of what can be known and verified by observation. But, however, -much assailed or disowned, the concept of a mind or conscious Subject or.

~ subject is to be found implicitly or explicitly in all psychological writers whatevert not more in Berkeley, who accepts it as a fact, than in Hume, who treats it as a fiction. This being so, we are far more likely to reach the truth eventually if we openly acknowledge this inexpugnable assumption, if such it prove, instead of resorting to all sorts of devious periphrases to hide it. Now wherever the word Subject, or its derivatives, occurs in psychology we might substitute the word Ego and analogous derivatives, did such exist. But Subject is almost always the preferable term; its impersonal form is an advantage, and it readily recalls its modern correlative Object. Moreover, Ego has two senses, distinguished by Kant as pure and empirical, the latter of which was, of course, an object, the Me known, while the former was subject always, the I knowing. By pure Ego or Subject it is proposed to denote here the simple

fact that everything experienced is referred to a Self experiencing. This psychological concept of a self or subject, then, is after all by no means identical with the metaphysical concepts of a soul or mind-atom, or of mind-stuff not atomic; it may be kept as free from metaphysical implications as the concept of the biological individual or organism with which it is so intimately connected.

The attempt, indeed, has frequently been made to resolve the former into the latter, and so to find in mind only such an *individuality* as has an obvious counterpart in this *individuality* of the organism, i.e. what we may call an objective individuality. But such procedure owes all its plausibility to the fact that it leaves out of sight the difference between the biological and the psychological standpoints. All that the biologist means by a dog is the sum of the phenomena which make up its corporeal existence. And, inasmuch as its presentation to any one in particular is a point of no importance, the fact of presentation at all may be very well dropped out of account. Let us now turn to psychology: Why should we not here follow Huxley and take the word soul simply as a name for the series of mental phenomena which make up an individual mind? Surely the moment we try distinctly to understand this question we realize that the cases are different. Series of mental phenomena for whom? For any passer-by such as might take stock of our biological dog? No, obviously only for that individual mind itself; yet that is supposed to be made up of, to be nothing different from, the series of phenomena. Are we, then, (1) quoting J. S. Mills words, to accept the paradox that something which *ex hypothesi* is but a series of feelings, can be aware of itself as a series? Or (2) shall we say that the several parts of the series are mutually phenomenal, much as A may look at B, who was just now looking at A? Or (3) finally, shall we say that a large part of the so-called series, in fact every term but one, is phenomenal for the rest for that one?

As to the first, paradox is too mild a word for it; even contradiction will hardly suffice. It is as impossible to express being aware of by one term as it is to express an equation or any other relation by one term: what knows can no more be identical with what is known than a weight with what it weighs. If a series of feelings is what is known or presented, then what knows, what it is presented to, cannot be that series of feelings, and this without regard to the point Mill mentions, viz, that the infinitely greater part of the series is either past or future. The question is not in the first instance one of time or substance at all, but simply turns upon the fact that knowledge or consciousness is unmeaning except as it implies something knowing or conscious of something. But it may be replied:

Granted that the formula for consciousness is something doing something, to put it generally; still, if the two somethings are the same when I touch myself or when I see myself, why may not agent and patient be the same when the action is knowing or being aware of; why may I not know myself in fact, do I not know myself? Certainly not; agent and patient never are the same in the same act; such terms as self-caused, self-moved, self-known, *et cetera* genus omne, either connote the incomprehensible or are abbreviated expressions as, e.g. touching oneself when ones right hand touches ones left. And so we come to the alternative: As one hand washes the other, may not different members of the series of feelings be subject and object in turn? Compare, for example, the state of mind of a man succumbing to temptation (as he pictures himself enjoying the coveted good and impatiently repudiates scruples of conscience or dictates of prudence) with his state when, filled with remorse, he sides with conscience and condemns this former self the better self having meanwhile become supreme. Here the cluster of presentations and their associated sentiments and motives, which together played the role of self in the first situation, have only momentarily it may be true, but still have for the time the place of not-self; and under abnormal circumstances this partial alternation may become complete alienation, as in what is called double consciousness. Or again, the development of self-consciousness might be loosely described as taking the subject or self of one stage as an object in the next self being, e.g. first identified with the body and afterwards distinguished from it. But all this, however true, is beside the mark; and it is really a very serious misnomer to speak, as e.g. Herbert Spencer does, of the development of self-consciousness as a differentiation of subject and object. It is, if anything, a differentiation of object and object, i.e. in plainer words, it is a differentiation among presentations a differentiation every step of which implies just that relation to a subject which it is supposed to supersede.

There still remains the alternative, expressed in the words of J. S. Mill, viz. the alternative of believing that the Mind or Ego is something different from any series of feelings or possibilities of them. To admit this, of course, is to admit the necessity of distinguishing between Mind or Ego, meaning the unity or continuity of consciousness as a complex of presentations, and Mind or Ego as the subject to which this complex is presented. In dealing with the body from the ordinary biological standpoint no such necessity arises. But, whereas there the individual organism is spoken of unequivocally, in psychology, on the other hand, the individual mind may mean either (i.) the series of feelings or mental phenomena above referred to; or (ii.) the subject of these feelings for whom they are phenomena; or (iii.) the subject of these feelings or phenomena plus the series of feelings or phenomena themselves, the two being in that relation to each other in which alone the one is subject and the other a series of feelings, phenomena or objects. It is in this last sense that Mind is used in empirical psychology.⁵ Its exclusive use in the first sense is favored only by those who shrink from the speculative associations connected with its exclusive use in the p. 17!

Huxley, Os.. cit. p. 172.

Explanation of Sir W. Hamilton's Philosophy, ch. xii. fin.

A meaning better expressed, as said above, by experience.

second. But psychology is not called upon to transcend the relation of subject to object or, as we may call it, the fact of presentation. On the other hand, as has been said, the attempt to ignore one term of the relation is hopeless; and equally hopeless, even futile, is the attempt, by means of phrases such as consciousness or the unity of consciousness, to dispense with the recognition of a conscious subject.

5. We might now proceed to inquire more closely into the character and relations of the three invariable constituents of Feeling psychical life which are broadly distinguished as cognitions, feelings and conations. But we should be at once confronted by a doctrine which, strictly taken, amounts almost to a denial of this tripartite classification of the facts of mind—the doctrine, viz, that feeling alone is primordial and invariably present wherever there is consciousness at all. Every living creature, it is said, feels, though it may never do any more; only the higher animals, and these only after a time, learn to discriminate and identify and to act with a purpose. This doctrine, as might be expected, derives its plausibility partly from the vagueness of psychological terminology, and partly from the intimate connection that undoubtedly exists between feeling and cognition on the one hand and feeling and volition on the other. As to the meaning of the term, it is plain that further definition is requisite for a word that may mean (a) a touch, as feeling of roughness; (b) an organic sensation, as feeling of hunger; (c) an emotion, as feeling of anger; (d) feeling proper, as pleasure or pain. But, even taking feeling in the last, its stricter sense, it has been maintained that all the more complex forms of consciousness are resolvable into, or at least have been developed from, feelings of pleasure and pain. The only proof of such position, since we cannot directly observe the beginnings of conscious life, must consist of considerations such as the following. So far as we can judge, we find feeling everywhere; but, as we work downwards from higher to lower forms of life, the possible variety and the definiteness of sense-impressions both steadily diminish. Moreover, we can directly observe in our own organic sensations, which seem to come nearest to the whole content of primitive or infantile experience, an almost entire absence of any assignable quale. Finally, in our sense-experience generally, we find the element of feeling at a maximum in the lower senses and the cognitive element at a maximum in the higher. But the so-called intellectual senses are the most used, and use (we know) blunts feeling and favors intellection, as we see in chemists, who sort the most filthy mixtures by smell and taste without discomfort. If, then, feeling predominates more and more as we approach the beginning of conscious life, may we not conclude that it is its only essential constituent? On the contrary, such a conclusion would be rash in the extreme. Two lines, e.g. may get nearer and nearer and yet will never meet, if the rate of approach is simply proportional to the distance. A triangle may be diminished indefinitely, and yet we cannot infer that it becomes eventually all angles, though the angles get no less and the sides do. Before, then, we decide whether pleasure or pain alone can ever constitute a complete experience, it may be well to inquire into the connection between feeling and cognition, on the one hand, and between feeling and conation on the other, so far as we can now observe. And this is an inquiry which will help us towards an answer to our main question, namely, that concerning the nature and

connections of what are commonly regarded as the three ultimate facts of mind. -

Broadly speaking, in any state of mind that we can directly observe, what we find is (1) that we are aware of a certain change Relation of in our sensations, thoughts or circumstances, (2) Feeling to that we are pleased or pained with the change, and a--o- (3) that we act accordingly. We never find that tion. feeling directly alters i.e. without the intervention of the action of which it prompts either our sensations or situation, but that regularly these latter with remarkable promptness and certainty alter it. We have first a change of feeling, and then a change in our sensations, perceptions and ideas; but, these changing, change of feeling follows. In short, feeling appears to be an effect, which therefore cannot exist without its cause, though in different circumstances the same immediate cause may produce a different amount or even a different state of feeling. Turning from what we may call the receptive phase of an experience to the active or appetitive phase, we find in like manner that feeling is certainly not in such cases as we can clearly observe the whole of what we experience at any moment. True, in common speech we talk of liking pleasure and disliking pain; but this is either tautology, equivalent to saying we are pleased when we are pleased and pained when we are pained; or else it is an allowable abbreviation, and means that we like pleasurable objects and dislike painful objects, as when we say we like feeling warm and dislike feeling hungry. But feeling warm or feeling hungry, we must remember, is not pure feeling in the stricter sense of the word. Within the limits of our observation, then, we find that feeling accompanies some more or less definite presentation which for the sake of it becomes the object of appetite or aversion; in other words, feeling implies a relation to a pleasurable or painful presentation or situation, that, as cause of feeling or as end of the action to which feeling prompts, is doubly distinguished from it. Thus the very facts that lead us to distinguish feeling from cognition and conation make against the hypothesis that consciousness can ever be all feeling. -

But, as already said, the plausibility of this hypothesis is in good part due to a laxity in the use of terms. Most psychologists before Kant, and some even to the present day, speak of pleasure and pain as sensations. But it is plain that pleasure and pain are not simple ideas, distinct.

as Locke called them, in the sense in which touches and tastes are that is to say, they are never like these localized or projected, nor are they elaborated in conjunction with other sensations and movements into percepts or intuitions of the external. This confusion of feeling with sensations is largely consequent on the use of one word pain both for certain organic sensations and for the purely subjective state of being pained. But such pains not only are always more or less definitely localized which of itself is so far from cognition, they are also distinguished as shooting, burning, gnawing, &c., all which symptoms indicate a certain objective quality. Accordingly psychologists have been driven by one means or another to recognize two aspects (Bain), or properties (Wundt), in what they call a sensation, the one a sensible or intellectual or qualitative, the other an affective or emotive, aspect or property. The term aspect is figurative and obviously inaccurate; even to describe pleasure and pain as properties of Sensation is a matter open to much question. But the point which at present concerns us is simply that when feeling is said to be the primordial element in consciousness more is usually included under feeling than pure pleasure and pain, viz. some characteristic or quality by which one pleasurable or painful sensation is distinguishable from another. No doubt, as we go downwards in the chain of life the qualitative or objective elements in the so-called sensations become less and less definite; and at the same time organisms with well-developed sense-organs give place to others without any clearly differentiated organs at all. But there is no ground for supposing even the amoeba itself to be affected in all respects the same whether by changes of temperature or of pressure or by changes in its internal fluids, albeit all of these changes will further or hinder its life and so presumably be in some sort pleasurable or painful. On the whole, then, there are grounds for saying that the endeavour to represent all the various facts of consciousness as evolved out of feeling is due to a hasty striving after simplicity, and has been favored by the ambiguity of the term feeling itself. If by feeling we mean a certain subjective state varying continuously in intensity and passing from time to time from its positive phase (pleasure) to its negative phase (pain), then this purely pathic state implies an agreeing or disagreeing something which psychologically determines it. If, on the other hand, we let feeling stand for both this state and the cause of it, then, perhaps, a succession of such feelings may make up a consciousness; but then we are including two of our elementary facts under the name of one of them. The simplest form of psychical life, therefore, involves not

only a subject feeling but a subject having qualitatively distinguishable presentations which are the occasion of its feeling.

6. We may now try to ascertain what is meant by cognition as an essential element in this life, or, more exactly, what we are to understand by the term presentation. It was an important step onwards for psychology when Locke introduced that new way of ideas which Stillingfleet found alternately so amusing and so dangerous. By ideas Locke told him he meant nothing but the immediate objects of our minds in thinking; and it was so far a retrograde step when Hume restricted the term to certain only of these objects, or rather to these objects in a certain state, viz, as reproduced ideas or images. And, indeed, the history of psychology seems to show that its most important advances have been made by those who have kept closely to this way of ideas; the establishment of the laws of association with their many fruitful applications and the whole Herbartian psychology may suffice as instances (see HERBART). The truth is that the use of such a term is itself a mark of an important generalization, one which helps to free us from the mythology and verbiage of the faculty-psychologists. All the various mental facts spoken of as sensations, movements, percepts, images, intuitions, concepts, notions, have two characteristics in common: (1) they admit of being more or less attended to, and (2) they can be variously combined together and reproduced. It is here proposed to use the term presentation to denote them all, as being the best English equivalent for what Locke meant by idea and what Kant and Herbart called a *Vorstellung*.

A presentation has then a twofold relation—first, directly to the subject, and, secondly, to other presentations. The former relation answers to the fact that a presentation is attended to, that the subject is more or less conscious of it: it is in his mind or presented. As presented to a subject a presentation might with advantage be called an object, or perhaps a psychical object, to distinguish it from what are called objects apart from presentation, i.e. conceived as independent of any particular subject. Locke, as we have seen, did so call it; still, to avoid possible confusion, it may turn out best to dispense with the frequent use of object in this sense. But on one account, at least, it is desirable not to lose sight altogether of this, which is after all the stricter as well as the older signification of object, namely, because it enables us to express definitely, without implicating any ontological theory, what we have so far seen reason to think is the fundamental fact in experience. Instead of depending mainly on that vague and treacherous word consciousness, or committing ourselves to the position that ideas are modifications of a certain mental substance or identical with the subject to whom they are presented, we may leave all this on one side, and say that ideas are objects, and the relation of objects to subject—that whereby the one is object and the other subject is presentation; and it is because only objects sustain this relation that they may be spoken of simply as presentations. On the side of the subject this relation implies what, for want of a better word, may be called attention, extending the denotation of this term so as to include even what we ordinarily call inattention. Attention so used will thus cover part of what is meant by consciousness—so much of it, that is, as answers to being mentally active, active enough at least to receive impressions. Attention on the side of the subject implies intensity on the side of the object: we might indeed almost call intensity the matter of a presentation, without which it is a nonentity.ⁱ The inter-objective relations of presentations, on which continuity their second characteristic, that of revivability and of Con-associability depends, though of the first, imports consciousness in themselves, hardly call for examination in a general analysis like the present. But there is one point ⁱ Cf. Kants Principle of the Anticipations of Perception: In all phenomena the real, which is the object of sensation, has intensive magnitude.

still more fundamental that we cannot wholly pass by: it is in part at any rate what is commonly termed the unity or continuity of consciousness. From the physical standpoint and in ordinary life we can talk of objects that are isolated and independent and in all respects distinct individuals. The screech of the owl, for example, has physically nothing to do with the brightness of the moon: either may come or go without changing the order of things to which the other belongs. But psychologically, for the individual percipient, they are parts of one whole; the more his attention is given to the one the more it is taken from the other. Also the actual recurrence of the one will afterwards entail the re-presentation of the other also. Not only are they still parts of one whole, but such distinctness as they have at present is the result of a gradual differentiation.

It is quite impossible for us now to imagine the effects of years of experience removed, or to picture the character of our infantile presentations before our interests had led us habitually to concentrate attention on some and to ignore others. In place of the many things which we can now see and hear, not merely would there then be a confused presentation of the whole field of vision and of a mass of undistinguished sounds, but even the difference between sights and sounds themselves would be without its present distinctness. Thus the further we go back the nearer we approach to a total presentation having the character of one general continuum in which differences are latent. There is, then, in psychology, as in biology, what may be called a principle of progressive differentiation or specialization; and this, as well as the facts of reproduction and association, forcibly suggests the conception of a certain objective continuum forming the background or basis to the several relatively distinct presentations that are elaborated out of it. The equivalent, in fact, of that unity and continuity of consciousness which has been supposed to supersede the need for a conscious subject.

There is one class of objects of special interest even in a general survey, viz, movements or motor presentations. These, like sensory presentations, admit of association and reproduction, and seem to attain to such distinctness as they possess in adult human experience by, a gradual differentiation out of an original diffused mobility which is little besides emotional expression. Of this, however, more presently. It is primarily to such dependence upon feeling that movements owe their distinctive character, the possession, that is, under normal circumstances, of definite and assignable psychical antecedents, in contrast to sensory presentations, which are devoid of them. We cannot psychologically explain the order in which particular sights and sounds occur; but the movements that follow them, on the other hand, can be adequately explained only by psychology. The twilight that sends the hens to roost sets the fox to prowl, and the lions roar which gathers the jackals scatters the sheep. Such diversity in the movements, although the sensory presentations are similar, is due, in fact, to what we might call the principle of subjective or hedonic selection that, out of all the manifold changes of sensory presentation which a given individual experiences, only a few are the occasion of such decided feeling as to become objects of possible appetite or aversion. It is thus by means of movements that we are more than the creatures of circumstances and that we can with propriety talk of subjective selection. The representation of what interests us comes then to be associated with the representation of such movements as will secure its realization, so that although no concentration of attention will secure the requisite intensity to a pleasurable object present only in idea we can by what is strangely like a concentration of attention convert the idea of a movement into the fact, and by means of the movement attain the coveted reality.

2 The biological principle referred to is that known as von Baers law, viz. that the progress of development is from the general to the special.

7. And this has brought us round naturally to the third of the commonly accepted constituents of experience. What is conation, or rather conative action? For there are two questions often more or less confused, the question of motive or spring of action, as it is sometimes called why is there action at all? and the question of means how do definite actions come about? The former question relates primarily to the connection of conation and feeling. It is only the latter question that we now raise. In ordinary voluntary movement we have first of all an idea or re-presentation of the movement, and last of all the actual movement itself a new presentation which may for the present be described as the filling out of the re-presentation, which thereby attains that intensity, distinctness and embodiment we call reality. How does this change come about? The attempt has often been made to explain it by a reference to the more uniform, and apparently simpler, case of reflex action, including under this term what are called sensori-motor and ideo-motor actions. In all these the movement seems to be the result of a mere transference of intensity from the associated sensation or idea that sets on the movement. But when by some chance or mischance the same sensory presentation excites two or more nascent motor changes that conflict, a temporary block is said to occur; and, when at length one of these nascent motor changes finally prevails, then, it is said, there is constituted a state of consciousness which displays what we term volition. But this assumption that sensory and motor ideas are associated before volition, and that volition begins where automatic or reflex action ends, is due to that inveterate habit of confounding the psychical and the physical which is the bane of modern psychology. How did these particular sensory and motor presentations ever come to be associated? The only psychological evidence we have of

any very intimate connection between sensory and motor representations is that furnished by our acquired dexterities, i.e. by such movement as Hartley styled secondarily automatic. But then all these have been preceded by volition: as Herbert Spencer says, the child learning to walk wills each movement before making it. Surely, then, a psychologist should take this as his typical case and prefer to assume that all automatic actions that come within his ken at all are in this sense secondarily automatic, i.e. to say that either in the experience of the individual or of his ancestors, volition or something analogous to it, preceded habit.

But, if we are thus compelled by a sound method to regard sensori-motor actions as degraded or mechanical forms of voluntary actions, instead of regarding voluntary actions as gradually differentiated out of something physical, we have not to ask: What happens when one of two alternative movements is executed? but the more general question: What happens when any movement is made in consequence of feeling? It is obvious that on this view the simplest definitely purposive movement must have been preceded by some movement simpler still. For any distinct movement purposely made presupposes the ideal presentation, before the actual realization, of the movement. But such ideal presentation, being a re-presentation, equally presupposes a previous actual movement of which it is the so-called mental residuum. There is then, it would seem, but one way left, viz. to regard those movements which are immediately expressive of pleasure or pain as primordial, and to regard the so-called voluntary movements as elaborated out of these. The vague and diffusive character of these primitive emotional manifestations is really a point in favor of this position. For such diffusion is evidence of an underlying continuity of motor presentations parallel to that already discussed in connection with sensory presentations, a continuity which, in each case, becomes differentiated in the course of experience into comparatively distinct and discrete movements and sensations respectively.³

I Compar & Spencers Principles of Psychology, I. ~ 217, 8.

D. Hartley, Observations on Man (6th ed., 1834), pp. 66 sqq.

It may be well to call to mind here that Alexander Hamalich regarded emotional expression as a possible commencement of action. But whereas we can only infer, and that in a very roundabout fashion, that our sensations are not absolutely distinct but are parts of one massive sensation, as it were, we are still liable under the influence of strong emotion directly to experience the corresponding continuity in the case of movement. Such motor-continuum we may suppose is the psychical counterpart of that permanent readiness to act, or rather that continual nascent acting, which among the older physiologists was spoken of as tonic action. This skeletal tone, as it is now called, is found to disappear more or less completely from a limb when its sensory nerves are divided. In the absence of the usual stream of afferent impulses passing into it, the spinal cord ceases to send forth the influences which maintain the tone.⁴ And a like intimate dependence, we have every reason to believe, obtains throughout between sensation and movement. We cannot imagine the beginning of life but only life begun. The simplest picture, then, which we can form of a concrete state of mind is not one in which there are movements before there are any sensations or sensations before there are any movements, but one in which change of sensation is followed by change of movement, the link between the two being a change of feeling.

Having thus simplified the question, we may now ask again:

How is this change of movement through feeling brought about? The answer, as already hinted, appears to be: Dependence. By a change of attention. We learn from such of the observations as psychologists describe under the heading of fascination, imitation, hypnotism, &c., that the mere concentration of attention upon a movement is often enough to bring the movement to pass. But, of course, in such cases neither emotion nor volition is necessarily implied; but none the less they show the close connection that exists between attention and movement. Everybody, too, must often have observed how the execution of any but mechanical movements arrests attention to thoughts or sensations, and how, vice versa, a striking impression or thought interrupts him in the performance of skilled movements. Let us suppose, then, that we have at any given moment a certain distribution of attention between sensory and motor presentations; a change in that distribution then will mean a change in the intensity of some of all of these. But, in the case of motor presentations, change of intensity means change of movement. Such

changes are, however, quite minimal in amount so long as the given presentations are not conspicuously agreeable or disagreeable. So soon as they are, however, there is evidence of a most intimate connection between feeling and attention; but it is hardly possible adequately to exhibit this evidence without first attempting to ascertain the characteristics of the presentations, or groups of presentations, that are respectively pleasurable and painful, and this must occupy us later on.

8. We are now at the end of our analysis, and the results may perhaps be most conveniently summarized by first throwing them into a tabular form and then appending a primordial few remarks by way of indicating the main purport of the table. Taking no account of the specific Mind.

difference between one concrete state of mind and another, and supposing that we are dealing with presentations but only to reject it in favor of his own peculiar doctrine of spontaneity, which, however, is open to the objection that it makes movement precede feeling instead of following it an objection that would be serious even if the arguments advanced to support his hypothesis were as cogent as only Bain supposed them to be. Against the position maintained above he objects that the emotional wave almost invariably affects a whole group of movements, and therefore does not furnish the isolated promptings that are desiderated in the case of the will (*Mental and Moral Science*, p. 323). But to make this objection is to let heredity count for nothing. In fact, wherever a variety of isolated movements is physically possible there also we always find corresponding instincts, that untaught ability to perform actions, to use Bain's own language, which a minimum of practice stiffens to perfect. But then these suggest gradual ancestral acquisition.

Foster, *Text-Book of Physiology*, 597.

in their simplest form, i.e. as sensations and movements, we have:

(I) non-voluntarily attend-) _

ing to changes in the ~ Presentation sensory~continuum; i j of sensory (2) being, in consequence, either pleased or A
sUBJECT pained; oBJECTS.

~Feeling]

and (3) by voluntary atten--

tion or innervation L=Presentation producing changes in of motor the motor-continuum.J

L ~Conationl Of the three phases or functions, thus analytically distinguishable, but not really separable, the first and the third correspond in the main with the receptive and active states or powers of the older psychologists. The second, being more difficult to isolate, was long overlooked; or, at all events, its essential characteristics were not distinctly marked, so that it was confounded either with (I) which is its cause, or with (3), its effect. But perhaps the most important of all psychological distinctions is that which traverses both the old bipartite and the prevailing tripartite analysis, viz, that between the subject on the one hand, as acting and feeling, and the objects of this activity on the other. With this distinction clearly before us, instead of crediting the subject with an indefinite number of faculties or capacities, we must seek to explain not only reproduction, association, &c., but all varieties of thinking and acting, by the laws pertaining to ideas or presentations, leaving to the subject only the one power of variously distributing that attention upon which the intensity of a presentation in part depends. What we call activity in the narrower sense (as eg. purposive movement and intellection) is but a special form of this single subjective activity, although a very important one.

According to this view, then, presentations, attention, feeling, are not to be regarded as three co-ordinate genera, each of which is a complete state of mind or consciousness, i.e. as being all alike included under this one supreme category. There is, as Berkeley long ago urged, no resemblance between activity and an idea; nor is it easy to see anything common to pure feeling and an idea, unless it be that both possess intensity. Classification seems, in fact, to be here out of place. Instead, therefore, of the one summum genus, state of mind or consciousness, with its three co-ordinate subdivisions cognition, emotion, conation our analysis seems to lead us to recognize three distinct and irreducible components attention, feeling, and objects or presentations as together, in a certain connection,

constituting one concrete state of mind or psychosis. Of such concrete states of mind or psychoses we may then say so far agreeing with the older, bipartite psychology that there are two forms, corresponding to the two ways in which attention may be determined and the two classes of objects attended to in each, viz. (1) the sensory or receptive attitude, when attention is non-voluntarily determined, i.e. where feeling follows the act of attention; and (2) the motor or active attitude, where feeling precedes the act of attention, which is thus determined voluntarily.

Attention.

9, Instead of a congeries of faculties we have assumed a single subjective activity and have proposed to call this attention. Some further explication of this position seems to be desirable. We start with the duality of subject and object as fundamental. We say of man, mouse, or monkey that it feels, perceives, remembers, infers, strives, and so forth. Leaving aside the first term, it is obvious that all the rest imply both an activity and an object. Is it possible to resolve these instances into a form in which the assumed diversity of the act will appear as a diversity of the object? At first sight it looks rather as if the kind of activity might vary while the object remained the same; that e.g. we perceived an object and later on remembered or desired it. It would then be most natural to refer these several activities to corresponding faculties of perception, memory and desire. This, indeed, is the view embodied in common speech, and for practical purposes it is doubtless the simplest and the best. Nevertheless, a more thorough analysis shows that when the supposed faculty is different the object is never entirely and in all respects the same. Thus in perception, e.g. we deal with impressions or primary presentations, and in memory and imagination with ideas (in the later sense) or secondary presentations. In desire the want of the object gives it an entirely different setting, adding a new characteristic, that of value or worth, so that its acquisition becomes the end of a series of efforts or movements. The older psychology, by its acceptance of the Cartesian doctrine that all the facts of immediate experience are to be interpreted as subjective modifications, failed to distinguish adequately between the subject as active and the objects of its activity. Hence the tendency to rest content with the popular distinction of various faculties in spite of the underlying sameness implied in the common application of conscious to them all. In fact, Locke's definition of idea (in the older and wider sense) as the immediate object of consciousness or thinking was censured by Reid as the greatest blemish in the *Essay on Human Understanding*. But, accepting this definition as implied in the duality of subject and object, and accepting too the underlying sameness which the active form conscious undeniably implies, we have simply to ask; Which is the better term to denote this common element consciousness or attention?

Consciousness, as the vaguest, most protean and most treacherous of psychological terms, will hardly serve our purpose. Attention, on the other hand, has an invariable active sense, and there is an appropriate verb, to attend. But many things⁵ it may be said, are presented while few are attended to; if attention is to be made coextensive with the activity implied in consciousness, will not the vital distinction between attention and inattention be lost? In fact, however, this distinction implies a covert comparison, not an absolute contrast. In everyday life we recognize many degrees of attention, ranging from an extreme of intense concentration to one of complete remission, as Locke long ago pointed out.² Between these extremes there is perfect continuity, and not a difference of kind; to apply the one term attention to the whole range is very like applying the one term magnitude to large and small quantities alike.

But it is not enough to show that when we commonly talk of different faculties we also find psychological differences of object, and to assert that if there is one common factor in all psychical activity this factor is attention. To make our position secure it is needful to show directly that all the various faculties with which a subject can be credited are resolvable into attention and various classes or relations or states of presentations that are attended to. How far this is possible remains to be seen as we proceed. In the case of the so-called intellectual powers the position is generally conceded, but so far as the voluntary or active powers are concerned it is as generally denied. Now, in so far as volition implies not merely action, overt or intended, but also motives, in so far also it must be acknowledged it contains a factor not resolvable into attention to motor presentations. This further factor, which has been called the volitional character of feeling, we here leave aside. Apart from this direct spring of action, then, the question is whether the active process itself differs from the cognitive or receptive process save in being attention to

a special class of objects. First of all, it is noteworthy that both have the same characteristics. Thus, what Hamilton called the law of limitation holds of each alike and of either with respect to the other; and it holds too not only of the number of presentations but also of the intensity. We can be absorbed in action just as much as in perception or thought; also, as already said, movements, unless they are mechanical, inhibit ideas; and vice versa, ideas, other than associated trains, arrest movements. Intoxication, hypnotism or insanity, rest or exhaustion, tell on apperception as well as on innervation. The control of thoughts, equally with the control of movements, requires effort; and as there is a strain peculiar to intently listening or gazing, which is known to have a muscular concomitant, so too there is a strain characteristic of recollection and visualization, which may quite well turn out to be muscular too. When movements have to be associated, the same continuous attention is called for as is found requisite in associating sensory impressions; and, when such associations have become very intimate, dissociation is about equally difficult in both cases.

There is one striking fact that brings to light the essential sameness of apperception and innervation, cited by Wundt for this very purpose. In so-called reaction-time experiments it is found, when the impression to be registered follows on a premonitory signal after a certain brief interval, that then the reaction (registering the impression) is often instantaneous; the reaction-time, in other words, is nil. In such a case the subject is aware not of three separate events, (1) the perception of the impression; (2) the reaction; (3) the perception of this; but the fact of the impression is realized and the registering movement is actualized at once and together the subject is conscious of one act of attention and one only.

Theory of Presentations.

10. We come now to the exposition of the objects of attention or consciousness, i.e. to what we may call the objective or presentational factor of psychical life. The treatment of this will fall naturally into two divisions. In the first we shall have to deal with its general characteristics and with the fundamental processes which all presentation involves. In view of its general and more or less hypothetical character we may call it the theory of presentation. We can then pass on to the special forms of presentations, known as sensations, percepts, images, &c., and to the special processes to which these forms lead up.

This exposition will be simplified if we start with a supposition that will enable us to leave aside, at least for the present, the difficult question of heredity. We know that in the course of each individual's life there is more or less of progressive differentiation or development.

Further, it is believed that there has existed a series of sentient individuals beginning with the lowest form of life and advancing continuously up to man. Some traces of the advance already made may be reproduced in the growth of each human being now, but for the most part such traces have been obliterated. What was experience in the past has become instinct in the present. The descendant has no consciousness of his ancestors' failures when performing by an untaught ability what they slowly and perhaps painfully acquired. But, if we are to attempt to follow the genesis of mind from its earliest dawn, it is the primary experience rather than the eventual instinct that we have first of all to keep in view. To this end, then, it is proposed to assume that we are dealing with one individual who has continuously advanced from the beginning of psychical life, and not with a series of individuals of whom all save the first inherited certain capacities from their progenitors. The life-history of such an imaginary individual, that is to say, would correspond with all that was new in the experience of a certain typical series of individuals each of whom advanced a certain stage in mental differentiation. On the other hand, from this history would be omitted that inherited reproduction of the net results, so to say, of ancestral experience, that innate tradition by which alone, under the actual conditions of existence, progress is possible. The process of thus reproducing the old might differ as widely from that of producing the new as electrotyping does from engraving. However, the point is that as psychologists we know nothing directly about it; neither can we distinguish precisely at any link in the chain of life what is old and inherited original in the sense of Locke and Leibnitz from what is new or acquired original in the modern sense. But we are bound as a matter of method to suppose all complexity and differentiation among presentations to have been originated, i.e. experimentally acquired, at some time or other. So long, then, as we are

concerned primarily with the progress of this differentiation we may disregard the fact that it has not actually been, as it were, the product of one hand dealing with one tabula rasa to use Locke originally Aristotle's figure, but of many hands, each of which, starting with a reproduction of what had been wrought on the preceding tabulae, put in more or fewer new touches before devising the whole to a successor who would proceed in like manner.

II. What is implied in this process of differentiation and what is it that becomes differentiated? these are the questions to which we must now attend. Psychologists have, The Pro.

usually represented mental advance as consisting essentially in the combination and recombination of various elementary units, the so-called sensations and primitive movements: in other words, as consisting in a species of mental chemistry. If we are to resort to physical analogies at all a matter of very doubtful propriety we shall find in the growth of a seed or an embryo far better illustrations of the unfolding of the contents of consciousness than in the building up of molecules: the process seems much more a segmentation of what is originally continuous than an aggregation of elements at first independent and distinct. Comparing higher minds or stages of mental development with lower by what means such comparison is possible we need not now consider we find in the higher conspicuous differences between presentations which in the lower are indistinguishable or absent altogether. The worm is aware only of the difference between light and dark. The steel-worker sees half a dozen tints where others see only a uniform glow. To the child, it is said, all faces are alike; and throughout life we are apt to note the general, the points of resemblance, before the special, the points of difference. But even when most definite, what we call a presentation is still part of a larger whole. It is not separated from other presentations, whether simultaneous or successive, by something which is not of the nature of presentation, as one island is separated from another by the intervening sea, or one note in a melody from the next by an interval of silence. In our search for a theory of presentations, then, it is from this continuity of consciousness that we must take our start. Working backwards from this as we find it now, we are led alike by particular facts and general considerations to the conception of a totum objectivum or objective continuum which is gradually differentiated, thereby giving rise to what we call distinct presentations, just as some particular presentation, clear as a whole, as Leibnitz would say, becomes with mental growth a complex of distinguishable parts. Of the very beginning of this continuum we can say nothing; absolute beginnings are beyond the pale of science. Experience advances as this continuum is differentiated, every differentiation being a change of presentation. Hence the commonplace of psychologists We are only conscious as we are conscious of change.

But change of consciousness is too loose an expression to take the place of the unwieldy phrase differentiation of a presentation-continuum, to which we have been gradually driven. For not only does the term consciousness fermentation confuse what exactness requires us to keep distinct, an of Present activity and its object, but also the term change of presentation-continuum.

fails to express the characteristics which distinguish new presentations from other changes. Differentiation implies that the simple becomes complex or the complex more complex; it implies also that this increased complexity is due to the persistence of former changes; we may even say such persistence is essential to the very idea of development or growth. In trying, then, to conceive our psychological individual in the earliest stages of development we must not picture him as experiencing a succession of absolutely new sensations, which, coming out of nothingness, admit of being strung upon the thread of consciousness like beads picked up at random, or cemented into a mass like the bits of stick and sand with which the young caddis covers its nakedness. The notion, which Kant has done much to encourage, that psychical life begins with a confused manifold of sensations devoid not only of logical but even of psychological unity is one that becomes more inconceivable the more closely we consider it. An absolutely new presentation, having no sort of connection with former presentations till the subject has synthesized it with them, is a conception for which it would be hard to find a warrant either by direct observation, by inference from biology, or in considerations of an a priori kind. At any given moment we have a certain whole of presentations, a field of consciousness, psychologically one and continuous; at the next we have not an entirely new field but a partial change within this field. Many who would allow this in the case of representations, i.e. where idea succeeds idea by the

workings of association, would demur to it in the case of primary presentations or sensations. For, they would say, may not silence be broken by a clap of thunder, and have not the blind been made to see? To urge such objections is to miss the drift of our discussion, and to answer them may serve to make it clearer. Where silence can be broken there are representations of preceding sounds and in all probability even subjective presentations of sound as well; silence as experienced by one who has heard is very different from the silence of Condillac's statue before it had ever heard. The question is rather whether such a conception as that of Condillac is possible; supposing a sound to be, qualitatively, entirely distinct from a smell, could a field of consciousness consisting of smells be followed at once by one in which sounds had part? And, as regards the blind coming to see, we must remember not only that the blind have eyes but that they are descended from ancestors who could see. What nascent presentations of sight are thus involved it would be hard to say; and the problem of heredity is one that we have for the present left aside.

The view here taken is (1) that at its first appearance in psychical life a new sensation or so-called elementary presentation is really a partial modification of some pre-existing presentation which thereby becomes as a whole more complex than it was before; and (2) that this complexity and differentiation of parts never become a plurality of discontinuous presentations, having a distinctness and individuality such as the atoms or elementary particles of the physical world are supposed to have. Beginners in psychology, and some who are not beginners, are apt to be led astray by expositions which set out from the sensations of the special senses, as if these furnished us with the type of an elementary presentation. The fact is we never experience a mere sensation of color, sound, touch, and the like; and what the young student mistakes for such is really a perception, a sensory presentation combined with various sensory and motor presentations and with representations and having thus a definiteness and completeness only possible to complex presentations. Moreover, if we could attend to a pure sensation of sound or color by itself, there is much to justify the suspicion that even this is complex and not simple, and owes to such complexity its clearly marked specific quality. In certain of our vaguest and most diffused organic sensations there is probably a much nearer approach to the character of the really primitive presentations.

In such sensations we can distinguish three variations, viz, variations of quality, of intensity, and of what Bain called Diffusion massiveness, or, as we shall say, extensity. This and last characteristic, which everybody knows who has felt the difference between the ache of a heavy bruise and the ache of a little one, between total and partial immersion in a bath, is, as we shall see later on, an essential element in our perception of space. But it is certainly

not the whole of it, for in this experience of massive sensation alone it is impossible to find other elements which an analysis of spatial intuition unmistakably yields. Extensity and extension, then, are not to be confounded. Now, we find, even at our level of mental evolution, that an increase in the intensity of a sensation is apt to entail an increase in its extensity too. In like manner we observe a greater extent of movement in emotional expression when the intensity of the emotion increases. Even the higher region of imagination is no exception, as is shown by the whirl and confusion of ideas incident to delirium, and, indeed, to all strong excitement. But this diffusion or radiation, as it has been called, diminishes as we pass from the class of organic sensations to the sensations of the five senses, from movements expressive of feeling to movements definitely purposive, and from the tumult of ideas excited by passion to the steadier sequences determined by efforts to think. Increased differentiation seems, then, to be intimately connected with increased restriction. Probably there may be found certain initial differentiations which for psychology are ultimate facts that it cannot explain. As already said, the very beginning of experience is beyond us, though it is our business working from within to push back our analysis as far as we can. But some differentiations being given, then it may be safely said that, in accordance with what we have called the principle of subjective selection (see 6), attention would be voluntarily concentrated upon certain of these and upon the voluntary movements specially connected with them. To such subjectively initiated modifications of the presentation-continuum, moreover, we may reasonably suppose restriction to be in large measure due. But increased restriction would render further differentiation of the given whole of presentation possible, and so the two processes might supplement each other. These processes have now proceeded so far that at the level of human consciousness we find it hard to form any tolerably clear conception of a field of consciousness in which an intense sensation, no matter what, might so to say diffuse over the whole. Colors, e.g. are with us so distinct from sounds that except as

regards the excitement of attention or the drain upon it there is nothing in the intensest color to affect the simultaneous presentation of a sound. But at the beginning whatever we regard as the earliest differentiation of sound might have been inco-presentable with the earliest differentiation of color, if sufficiently diffused, much as a field of sight all blue is now inco-presentable with one all red. Or, if the stimuli appropriate to both were active together, the resulting sensation might have been not a blending of two qualities, as purple is said to be a blending of red and violet, but rather a neutral sensation without the specific qualities of either. Now, on the other hand, colors and sounds are necessarily so far localized that we are directly aware that the eye is concerned with the one and the ear with the other. This brings to our notice a fact so ridiculously obvious inco that it has never been deemed worthy of mention, present although it has undeniably important bearings ability.

the fact, viz, that certain sensations or movements are an absolute bar to the simultaneous presentation of other sensations or movements. We cannot see an orange as at once yellow and green, though we can feel it at once as both smooth and cool; we cannot open and close the same hand at the same moment, but we can open one hand while closing the other. Such inco-presentability or contrariety is thus more than mere difference, and occurs only between presentations belonging to the same sense or to the same group of movements. Strictly speaking, it does not always occur even then; for red and yellow, hot and cold, are presentable together provided they have certain other differences which we shall meet again presently as differences of local sign.

12. In the preceding paragraphs we have had occasion to distinguish between the presentation-continuum or whole field of consciousness, as we may for the present call it, I? t ~ and those several differentiations within this field ~ e which are ordinarily spoken of as presentations, and to which now that their true character as parts is clear we too may confine the term. But it will be well in the next place, before inquiring more closely into their characteristics, to consider for a moment that persistence of preceding modifications which the principle of progressive differentiation implies. This persistence is best spoken of as retentiveness. It is often confused with memory, though this is something much more complex and special; for in memory there is necessarily some contrast of past and present, whereas here there is simply the persistence of the old. But what is it that persists? On our theory we must answer, the continuum as differentiated, not the particular differentiation as an isolated unit. If psychologists have erred in regarding the presentations of one moment as merely a plurality of units, they have erred in like manner concerning the so-called residua of such presentations. As we see a certain color or a certain object again and again, we do not go on accumulating images or representations of it, which are somewhere crowded together like shades on the banks of the Styx; nor is such color, or whatever it be, the same at the hundredth time of presentation as at the first, as the hundredth impression of a seal on wax would be. There is no such lifeless fixity in mind. The explanations of perception most in vogue are far too mechanical arid, so to say, atomistic; but we must fall back upon the unity and continuity of our presentation-continuum if we are to get a better. Suppose that in the course of a few minutes we take half a dozen glances at a strange and curious flower. We have not as many complex presentations which we might symbolize as F., F1 Fs. But rather, at first only the general outline is noted, next the disposition of petals, stamens, &c., then the attachment of the anthers, position of the ovary, arid so on; that is to say, symbolizing the whole flower as as being akin to feeling and so distinct from special presentations, should in any way confound the two. The mistake is perhaps accounted for by the fact that Bain, in common with the rest of his school, nowhere distinguishes between attention and the presentations that are attended to. If change of impression and being conscious or mentally alive are the same thing, it is then manifestly tautologous to say that one is the indispensable condition of the other. If they are not the same thing, then the succession of shocks or surprises cannot wholly determine the impressions which successively determine them.

But we have still to consider whether the impressions themselves are nothing but differences or contrasts. We do not know any one thing of itself but only the difference between it and another thing, said Bain. But it is plain we cannot speak of contrast or difference between two states or things as a contrast or difference, if the states or things are not themselves presented; the so-called contrast or difference would then be itself a single presentation, and its supposed relativity but an inference. Difference is not more necessary to the presentation of two objects than two objects to the presentation of difference. And, what is more, a difference between presentation. is not at all the same thing as the

presentation of that difference. The former must precede the latter; the latter, which requires active comparison, need not follow. There is an ambiguity in the words know, knowledge, which Bain seems not to have considered: to know may mean either to perceive or apprehend, or it may mean to understand or comprehend. Knowledge in the first sense is only what we shall have presently to discuss as the recognition or assimilation of an impression (see below, i8); knowledge in the latter sense is the result of intellectual comparison and is embodied in a proposition. Thus a blind man who cannot know light in the first sense can know about light in the second if he studies a treatise on optics. Now in simple perception or recognition we cannot with any exactness say that two things are perceived: straight is a thing, i.e. a definite object presented; not so not-straight, which answers to no definite object at all. Only when we rise to intellectual knowledge is it true to say: No one could understand the meaning of a straight line without being shown a line not straight, a bent or crooked line. 2 Two distinct presentations are necessary to the comparison that is here implied; but we must first recognize our objects before we can compare them, and this further step we may never take. We need, then, to distinguish between the comparativity of intellectual knowledge, which we must admit for it rests at bottom on a purely analytical proposition and the differential theory of presentations, which, however plausible at first sight, must be wrong somewhere, since it commits us to absurdities. Thus, if we cannot have a presentation X but only the presentation of the difference between V and Z, it would seem that in like manner we cannot have the presentation of V or Z, nor therefore of their difference X, till we have had the presentation of A and B say, which differ by F, and of C and D, which we may suppose differ by Z.

The lurking error in this doctrine, that all presentations are but differences, may perhaps emerge if we examine more closely what may be meant by difference. We may speak of (a) differences in intensity between sensations supposed to be qualitatively identical, as e.g. between the taste of strong and weak tea; or of (b) differences in quality between presentations of the same sense, as e.g. between red and green; or of (c) differences between presentations of distinct senses, as e.g. between blue and bitter. Now as regards (a) and (b), it will be found that the difference between two intensities of the same quality, or between two qualities of the same order, may be itself a distinct presentation. Other languages give more prominence to this distinction; compare *yo-yo* and *yo-ya*, *noscere* and *scire*, *kennen* and *wissen*, *connaître* and *savoir*. On this subject there are some acute remarks in a little-known book, the *Exploratio philosophica*, of Professor J. Grote. Hobbes, too, was well awake to this difference, as e.g. when he says, There are two kinds of knowledge; the one, sense or knowledge original and remembrance of the same; the other, science or knowledge of the truth of propositions, derived from understanding.

Bain, *Logic*, i. 3.

sensation, that is to say, in passing from a load of 10 lb to one of 20 lb, for example, or from the sound of a note to that of its octave, it is possible to experience the change continuously, and to estimate it as one might the distance between two places on the same road. But nothing of this kind holds of (c), 1 In passing from the scent of a rose to the sound of a gong or a sting from a bee we have no such means of bringing the two into relations scarcely more than we might have of measuring the length of a journey made partly on the common earth and partly through the looking-glass. In (c), then, we have only, a diversity of presentations, but not a special presentation of difference; and we only have more than this in (a) or (b) provided the selected presentations occur together. We say that we know the difference between a sound and a taste; but what we mean is simply that we know what it is to pass from attending to the one to attending to the other. It is simply an experience of change. Change, however, implies continuity, and there is continuity here in the movement of attention and the affective state consequent on that, but not directly in the qualities themselves.

c. If red follows green we may be aware of a greater difference than we could if red followed orange; and we should ordinarily call a 10 lb load heavy after one of 5 lb and light after one of 20 lb. Facts like these it is which make the differential theory of presentations plausible. On the strength of such facts Wundt has formulated a law of relativity, free, apparently, from the objections just urged against Bains doctrine. It runs thus: Our sensations afford no absolute but only a relative measure of external impressions. The intensities of stimuli, the pitch of tones, the qualities of light, we apprehend (*empfinden*) in general only according to their mutual relation, not according to any unalterably

fixed unit given along with or before the impression itself. ~

But if true this law would make it quite immaterial what the impressions themselves were: provided the relation continued the same, the sensation would be the same too, just as the ratio of 2 to 1 is the same whether our unit be miles or millimetres. In the case of intensities, e.g. there is a minimum sensible and a maximum sensible. The existence of such extremes is alone sufficient to turn the flank of the thoroughgoing relativists; but there are instances enough of intermediate intensities that are directly recognized. A letter-sorter, for example, who identifies an ounce or two ounces with remarkable exactness identifies each for itself and not the first as half the second; of an ounce and a half or of three ounces he may have a comparatively vague idea. And so generally within certain limits of error, indirectly ascertained, we can identify intensities, each for itself, neither referring to a common standard nor to one that varies from time to time to any intensity, that is to say, that chances to be simultaneously presented; just as an enlisting sergeant will recognize a man fit for the Guards without a yard measure and whether the mans comrades are tall or short. As regards the qualities of sensations the outlook of the relativists is, if anything, worse. In what is called Meyers experiment (described under VISION) what appears greenish on a red ground will appear of an orange tint on a ground of blue; but this contrast is only possible within certain very narrow limits. In fact, the phenomena of color-contrast, so far from proving, distinctly disprove that we apprehend the qualities of light only according to their mutual relation. In the case of tones it is very questionable whether such contrasts exist at all. Summing up on the particular doctrine of relativity of which Wundt is the most distinguished adherent, the truth seems to be that, in some cases where two presentations whose difference is itself presentable occur in close connection, this difference as we indirectly learn exerts a certain bias on the assimilation or identification. Common language seems to recognize some connection even here or we should not speak of harsh tastes and harsh sounds, or of dull sounds and dull colors and so forth. All this is, however, superadded to the sensation, probably on the ground of similarities in the accompanying organic sensations.

Physiologische Psychologie, 1st ed., p. 421; the doctrine reappears in later editions, but no equally general statement of it is given.

of one or both of the presentations. There is no unalterably fixed unit certainly, but, on the other hand, the mutual relations of impressions are not everything.

15. The term field of consciousness has occurred sundry times in the course of this exposition: it is one of several *em. Subcon.* ployed in describing what have been incidentally ~consciousness. referred to as degrees or grades of consciousness a difficult and perplexing topic that we must now endeavour further to elucidate. Sailors steering by night are said to look at the pole-star, the cynosure of every eye, but this does not prevent them from seeing the rest of the starry vault. At a *conversazione* we may listen to some one speaker while still hearing the murmur of other voices, and while listening we may also see the speaker and thereby identify him the better. What in these instances is looked at or listened to has been called the focus of consciousness, the rest of what is heard or seen or otherwise presented being called the field within which attention is thus concentrated or brought to a point. Of these objects beyond the focus we have then only a lower degree of consciousness, and the more distant they are from the centre of interest the fainter and obscurer they are supposed to be or to become. Now, it is obvious that the continuity here implied, if strictly taken, logically commits us to a field of consciousness extending with ever diminishing intensity *ad indefinitum*. But we have next to notice certain new features that have led psychologists to give to the term field of consciousness a more restricted meaning. A meteor flashing across the sky would certainly divert the helmsmans attention, and for the nonce he would look at that and not at the star in the Little Bears tail; a voice at our elbow accosting us, we should turn to the new speaker and listen to him, still hearing it may be, but no longer following, the discourse thus for us interrupted. In these cases a change in the field of consciousness brings about a non-voluntary change in the focus. But it only does so provided it is sufficiently intense and abrupt, and the more attention is already concentrated the less effective a given disturbance will be. A whole swarm of meteors might have streaked the sky unheeded while Ulysses, life in hand, steered between Scylla and Charybdis, just as all the din of the siege failed to distract Archimedes bent over his figures in the sand. On the other hand, we can voluntarily transfer the

focus of consciousness to any object within the field, provided again this is sufficiently differentiated from the rest. But, more than that, we can not only of our own motion turn to look at or to listen to what we have only seen or heard, but not noticed before; we can also look out or listen for something not as yet distinguishable, perhaps not as yet existing at all. And here ~.gain the concentration of attention may be maximal, as when a shipwrecked crew scan the horizon for a sail, or a beleaguered troop hearken for the oncoming of rescue. Now, such anticipated presentations as soon as they are clearly discernible have already a certain finite intensity, and so they are said to have passed over the threshold to use Herbart's now classic phrase and to have entered the field of consciousness. Afterwards any further increase in their intensity is certainly gradual; are we then to suppose that before this their intensity changed instantly from zero to a finite quantity and not rather that there was an ultraliminal or subliminal phase where too it only changed continuously? The latter alternative constitutes the hypothesis of subconsciousness. According to this hypothesis the total field with which we began is divided into two parts by what Fechner emphatically called the fact of the threshold, and the term field of consciousness is henceforth restricted to that part within which the focus of consciousness always lies, the outlying part being the region of subconsciousness. Difficulties now begin to be apparent. The intensity or vivacity of a presentation within the field of consciousness depends partly on what we may call its inherent or absolute intensity, partly on the attention that it receives; but this does not hold of presentations in subconsciousness. These sub-presentations, as we ought perhaps to call them, cannot be severally and selectively attended to, cannot be singled out as direct objects of experience. Many psychologists have accordingly maintained not only that they cannot with propriety be called presentations, but that they have no strictly psychical existence at all. This, however, is too extreme a view. If nothing of a presentational character can exist save in the field of consciousness as thus circumscribed by a definite boundary or threshold, a breach of continuity is implied such as we nowhere else experience: even the field of sight, from which the metaphor of a field of consciousness is derived, has no such definite margin. The threshold then is not comparable to a mathematical line on opposite sides of which there is an intensive discontinuity. This has been amply proved by the psychophysical investigations of Fechner and others. We listen, say, to a certain sound as it steadily diminishes; at length we cease to hear it. Again, we listen for this same sound as it steadily increases and presently just barely hear it. In general it is found that its intensity in the former case is less than it is in the latter, and there is also in both cases a certain margin of doubt between clear presence and clear absence; the presentation seems to flicker in and out, now there and now gone. Further, in comparing differences in sensations of weight, brightness, temperature, &c. we may fail wholly to detect the difference between a and b, b and c, and yet the difference between a and c may be clearly perceived. We have thus to recognize the existence of a difference between sensations, although there is no so-called sensation of difference. But if this much continuity must be admitted we can hardly fail to admit more. If differences of presentation exist within the field of consciousness beyond the outermost verge of the threshold of difference, we cannot consistently deny the existence of any presentations at all beyond the threshold of consciousness. Since the field of consciousness varies greatly and often suddenly with the amount and distribution of attention, we must, as already said, either recognize such subconscious presentations or suppose that clearly differentiated presentations, presentations that is to say of finite intensity, pass abruptly into or out of existence with every such variation of the field.

The hypothesis of subconsciousness, then, is in the ipain nothing more than the application to the facts of presentation of the law of continuity, its introduction into psychology being due to Leibnitz, who first formulated that law. Half the difficulties in the way of its acceptance are due to our faulty terminology. With Leibnitz consciousness was not coextensive with all psychical life, but only with certain higher phases of ~.t.i Of late, however, the tendency has been to make consciousness cover all stages of mental development, and all grades of presentation, so that a presentation of which there is no consciousness resolves itself into the manifest contradiction of an unrepresented presentation a contradiction not involved in Leibnitz's unapperceived perception. But such is not the meaning intended when it is said, for example, that a soldier in battle is often unconscious of his wounds or a scholar unconscious at any one time of most of the knowledge hidden in the obscure recesses of his mind. There would be no point in saying a subject is not conscious of what is not presented at all; but to say that what is presented

lacks the intensity requisite in the given distribution of attention to change that distribution appreciably is pertinent enough. Subconscious presentations may tell on conscious life as sunshine or mist tells on a landscape, or the underlying writing on a palimpsest although, lacking either the intensity or the individual distinctness requisite to make them definite features. Even if there were no facts to warrant this concept of an ultra-liminal presentation of impressions it might still claim an a priori justification.

The subconscious presentation of ideas as distinct from impressions calls, however, for some special consideration. As we can turn our attention to the sensory threshold, ideas, and await the entrance of an expected impression, so we may await the emergence of a memory-image; and again the threshold turns out to be not a mathematically exact boundary but a region of varying depth. What we are trying to recollect seems first to waver, now at the tip of our tongue and the next moment completely gone, then perhaps a moment afterwards rising into clear consciousness. Sometimes when asked, say, for the name of a certain college contemporary we reply: I cannot tell, but I should know the name if I heard it. We are aware that we could recognize, though we cannot reproduce. At other times we are confident that even recognition is no longer possible, and still if we met the man himself in the old scenes and heard his voice his name might yet recur. Nevertheless, it may be urged, it is surely incredible that all the incidents of a long lifetime and all the items of knowledge of a well-stored mind that may possibly recur the infinitely greater part of our spiritual treasures, as Hamilton says are severally retained and continuously presented in the form and order in which they were originally experienced or acquired. This, however, is not implied. Images in contrast to impressions have always a certain generality. The same image may figure in very various connections, as may the same letter, for example, in many words, the same word in many sentences. We cannot measure the literature of a language by its vocabulary, nor may we equate the extent of our spiritual treasures when these are successively unfolded with the psychical apparatus, so to say, in which they are subconsciously involved.² Take the first book of the *Aeneid*, which, as Macaulay would say, every schoolboy knows: as subconsciously involved, when the boy is not thinking of it, his knowledge is more comparable to a concordance than to the text itself, which nevertheless can be reproduced from it. In the text *Aeneas* occurs many times, in the concordance as a heading but once. But give him the cue *Aeneas scopulum*, and the boy reels off from the 280th line; or *Praecipue pius Aeneas*, and he starts with the 220th. But ask him for the 580th line; he is probably helpless, while a dunce with the book in his hand can read it off at once. Say instead *Et pater Aeneas*, and the boy can straightway complete the line while the dunce is now helpless. So though its explicit revival is successional, occurs, so to say, in single file, a whole scheme in which many ideas are involved may rise towards the threshold together. When our schoolboy, for example, turns from classics to geography, the mention of *Atlas*, which might then have recalled a *Titan*, now leads him to think only of his book of maps. And there is a like sudden shifting of the substratum of our thoughts, when, taking up the morning paper, we glance first at the foreign telegrams, then at the money market, and then at the doings of our political friends. Yet more remote than all, obscurer but more pervasive, like the clouds of cherubs or imps vaguely limned in medieval pictures, are the indefinite constituents of our emotional atmosphere, gay notes that people the sunbeams of our cheerfulness and make all *couleur de rose*, or horrid shapes and sights unholy that overcast the outlook when we have the blues. And as attention relaxes, these advance into the foreground and become more or less palpable hopes or fears.

Herbart and Fechner describe subconscious presentations generally as existing below the threshold. On the other hand, we have spoken of subconscious sensations as existing beyond it. In view of the important differences between the two forms of presentations primary and secondary, this distinction of ultra-liminal and subliminal seems convenient and justifiable.

² This doctrine of the involution and evolution of ideas we owe to Leibnitz. Herbart attempted in a very arbitrary and a priori fashion to develop it into a physical statics and dynamics with the result usual to extreme views that later psychologists neglected it altogether. There are now signs of a fresh reaction, and we shall continually come across evidence of the wide range and great importance of the doctrine as we proceed.

Because of the manifold forms into which they may evolve, subconscious images, while still involved, are sometimes called psychical or more definitely presentational dispositions. The word disposition means primarily an arrangement, as when we talk of the disposition of troops in a battle or of cards in a game; the disposita, that is to say, are always something actual. Which of several potential dispositions they will actually assume will depend upon circumstances, but at least, as Leibnitz long ago maintained, *les puissances vritables ne sont jamais des simples possibilits*. What is requisite to the realization of a given potentiality is sometimes a condition to be added, sometimes it is one to be taken away. A locomotive with the fire out has no tendency to move, but with steam up it is only hindered from moving by the closure of the throttle-valve or the friction of the brake. Now presentational dispositions we assume to be of the latter sort. They are processes or functions more or less inhibited, and the inhibition is determined by their relation. to other psychical processes or functions. The analysis and genesis of these presentational interactions will occupy us at length by and by; it may then be possible to explain the gradual involution of what was successively unfolded in explicit consciousness into those combinations which Herbart called *apperception-masses*, combinations devoid of the concrete hints of date and place which are essential to memory. Meanwhile the evidence adduced decidedly cogent though admittedly indirect together with the difficulties besetting the extreme view that beyond or below the threshold of consciousness there is nothing presentational, seems clearly to justify the hypothesis of subconsciousness. At the same time the principle of continuity, everywhere of fundamental importance when we are dealing with reality, forbids the attempt arbitrarily to assign any limits to the subconscious.

Many psychologists have proposed to explain subconscious retention by habit. But it is obvious that habit itself implies retention and is practically synonymous with disposition; it must therefore presuppose disposita if we are to escape the absurdities of *puissances ou facults nues*, with which in this very connection Leibnitz twitted Locke. Yet, obvious as all this may be, it is frequently ignored even by those who are fond of exposing the pretended explanations of the faculty-psychologists and quoting Moliere to confute them. Thus we find J. S. Mill arguing: I have the power to walk across the room though I am sitting in my chair: but we should hardly call this power a latent act of walking.¹ Nor should we call it a power at all if Mill had been paralysed, or if, instead of sitting in his chair, he had been lying in his cradle. What we want is the simplest psychological description of the situation after the power has been acquired by practice and is still retained. In such a case we can be conscious of the idea of the movement without the movement actually ensuing; yet only in such wise that the idea is more apt to pass over into action the intenser it is, and often actually passes over in spite of us. Surely there must be some functional activity answering to this conscious presentation; why may not a much less amount of it be conceived possible in subconscious presentation?

Sensation, Movement and the External World.

16. On the view of experience here maintained, we are bound to challenge the description of sensations ~ as due to physical stimuli widely current though it is one that is psychologically inappropriate. The ~ of following definition, given by Bain, may be taken as a type: By sensations, in the strict meaning, we understand the mental impressions, feelings or states of consciousness following on the action of external things on some part of the body, called on that account sensitive. i It is true, no doubt, that what the psychologist calls sensibility has as its invariable concomitant what physiologists call sensibility, For a detailed account of the various sensations and perceptions pertaining to the several senses the reader is referred to the articles VISION; HEARING; TOUCH; TASTE; SMELL, &c.

Senses and Intellect, 4th ed. (1894), p. 101.

or what the more careful of them call irritability; and, true again, that this irritability is invariably preceded by a physical process called stimulation. But it may be urged, why not recognize a connection that actually obtains, since otherwise sensation must remain unexplained? Well, in the first place, such psychophysical connection is not a psychological explanation: it cannot be turned directly to account in psychology, either analytic or genetic. Next the psychological fact called sensation always is, and at bottom always must be, independently ascertained; for the physiological neurosis or irritation has not necessarily a concomitant psychosis or sensation and, strictly dealt with,

affords no hint of such. Finally, this inexplicability of sensation is a psychological fact of the utmost moment: it answers to what we call reality in the primary sense of the term. The psychophysicist, in setting out to explain sensation, has unawares to himself left this fundamental reality behind him. For it belongs essentially to individual experience, and this in assuming the physical standpoint he has of course transcended. Nevertheless the mistake of method that here reveals itself was perhaps inevitable, for the facts of another's sense-organs and their physical excitants must have obtruded themselves on observation long before the reflective attitude was advanced enough to make strictly psychological analysis possible. The psychophysical standpoint, that is to say, was attained before the purely psychological; and the consequent bias is only now in process of correction. A series of physical processes, first without and then within the organism—etherial or aerial vibrations, neural and cerebral excitations—was the starting-point. What comes first, immediately, and alone, in the individual's experience, and is there simply and positively real, was then misinterpreted as subjective modification, mental impression, species sensibiles, or the like. For from the days of Democritus to our own the same crude metaphor has prevailed without essential variation. And here the saying holds:

Vestigia niella retrorsum. Into the man's head the whole world goes, including the head itself. Such thoroughgoing introjection affords no ground for subsequent projection. Thus the endeavour to explain sensation overreaches itself: the external object or thing that was supposed to cause sensations and to be therefore distinct from them, was in the end wholly resolved into these and regarded as built out of them by association (Mill) or by apperceptive synthesis (Kant). But no mental chemistry, no initial alchemy of forms, can generate objective reality from feelings or sense-impressions as psychophysically defined. As experience as it is for B is not real but inferential; and if the grounds of the inference, which are the only realities for B, are to be regarded as the causes of which A's experiences are merely the effects, then the two experiences are on a wholly different footing. When A treats B in the same fashion we get the world in duplicate: (1) as original and outside, i.e. as cause, and (2) as copied within each percipient's head, i.e. as effect. But when B interprets his own experience as he had interpreted A's we seem to have lost the real world altogether. In presence of this dilemma, the philosophers of our time, as already said, are feeling it needful to revise their psychology. The question of method is vital. If the psychophysical standpoint were the more fundamental, psychology would be based on physiology, and the old definition of sensation might stand. If, on the other hand, it is the exclusive business of psychology to analyse and trace the development of individual experience as it is for the experiencing individual, then however much neurological evidence may be employed as a means of ascertaining psychological facts—the facts themselves must be scrupulously divested of all physical implications, the psychophysical method takes a secondary place, and the objective reality of sensory presentations stands unimpeached.

The duality of subject and object in experience compels us also to object to the description of sensations as states of consciousness. Nothing shows this more plainly than the newly-coined term *epiphenomenon* now applied in this connection. Since it is the subject, not the object that is conscious, the term *state of consciousness* implies strictly a subjective reference; and so it is only applicable to sensations, if they are regarded as subjective modifications, either affective or active. The former would identify sensation with feeling, and this for reasons already given we must disallow. But it is true that a sensation, like other presentations, implies the subjective activity we call attention; it is not, however, a modification or state of this activity, but the object of it. This relation is expressed in German by means of the distinction generally of *Vorstellen* and *Vorstellung* and in the present case of *Empfinden* and *Empfindung*; and German psychology has gained in clearness in consequence. The distinction of conception and concept (*conceit*) is to be found in older English writers and was revived by Sir W. Hamilton, who suggested also the analogous distinction of perception and percept. It would be a great gain if there were a corresponding pair of terms to distinguish between the sensing act and the object sensed, as some have been driven to say. Reception and receipt at once occur and seem unexceptionable apart, of course, from their novelty. At any rate, if we are to rest content with our present untechnical terminology we must understand sensations to mean objective changes as they first break in upon the experience of our psychological individual; in this respect Locke's term *impression* has a certain appropriateness.

What we ordinarily call a single sensation has not only a characteristic quality but it is also quantitatively determined in respect of intensity, protensity (or duration) and extensity. A plurality of properties, it may be said, straightway implies complexity of some sort. This is obvious and un-Charaderdeniable; psychologicalas distinct from f istics of analysis of simple sensations is possible, and the Seijsatioa. description just given is reached by means of it. Such analysis, however, presupposes the comparison of many sensations; but to the complexity it discloses there is no answering plurality discernible in the immediate experience of a single sensation. To make this clearer let us start from a case in which such plurality can be directly verified. In a handful of rose petals we are aware at once of a definite color, a definite odour and a definite feel. Here there is a plurality (a+b+c), any part of which can be withdrawn from our immediate experience without prejudice to the rest, for we can close the eyes, hold the nose, or drop the petals on the table. Let us now turn to the color alone; this we say has a certain quality, intensity, extensity, &c. But not only have we not one sense for quality, another for intensity, &c., but we cannot reduce the intensity to zero and yet have the quality remaining; nor can we suppress the quality and still retain the extensity. In this case then what we have is not a plurality of presentations (a+b +c), but a single presentation having a plurality of attributes (a b c) so related that the absence of any one annihilates the whole. But though, as already said, such single presentation gives, as it stands, no evidence of this plurality, yet it is to be remembered that in actual experience we do not deal with sensations in isolation; here, accordingly, we find evidence in plenty to justify our psychological analysis. In innumerable cases we experience varieties of intensity with little or no apparent change of quality, as happens, for example, when a sounding pitch-pipe is moved towards or away from the ear; and continuous changes of quality without any change of intensity, as happens when the pipe is shortened or lengthened without any alteration of position. We may have tactual or visual sensations which vary greatly in extensity without any striking change of quality, and we may have such sensations in every possible variety of quality without any changes of extensity.

The numerous and striking diversities among our present sensations are obviously not primordial; what account then can we give of their gradual differentiation? Some psychologists have assumed the existence of absolute Units Of This distinction, though continually overlooked, is vitally important. By psychological analysis we mean such analysis as th~ psychological observer can reflectively make, by psychical analysi~ only such analysis as is possible in the immediate experience of th~ subject observed.

sensibility, all identically the same, and explain the unlikenesses in our existing sensations as resulting from unlike Differentia- modes of integration of these absolute units.,i lion of The sole evidence on which they rely is physiological, Sensation, the supposed existence of a single nerve shock or neural tremor. It is true that in an extirpated nerve what is known as the negative variation is approximately such an isolated event of uniform quality~ But the same cannot be said of what happens during the stimulation. of a nerve in situ with its peripheral and central connections still intact. The only evidence apparently to which we can safely appeal in this inquiry is that furnished by biology. Protoplasm, the socalled physical basis of life, is amenable to stimulation by every form of physical agencymechnical, chemical, thermal, photical, electricalwith the single exception of magnetism; and in keeping with this it is found that unicellular organisms respond; and respond in ways more or less peculiar, to each of these possible modes of excitation. Since, so far as is known, there is no morphological separation of function in these lowest forms of life, it is reasonably assumed that the single cell acts the part of universal sense-organ, and that the advance to such complete differentiation of sense-organs as we find among the higher vertebrates has been a gradual advance. Numerous facts can now be adduced of the occurrence of transitional or alternating sense-organs among the lower forms of multicellular animals; organs, that is to say, which are normally responsive to two or more kinds of stimulus, and thus hold an intermediate position between the universal sense-organ of the Protozoa and the special sense-organ of the Mamnialia. For example, a group of cells which would behave towards all stimuli impartially were they independent unicellular organisms become, as an organ in a multicellular organism, amenable only to mechanical or only to chemical stimuli, become, that is to say, an organ of touch and of hearing, or an organ of taste and also of smell; until, finally, when differentiation is sufficiently advanced, the group ends by becoming exclusively the organ of one specified sense, touch or hearing in the one case, taste or smell in the other.f Of course

the imperfectly specialized sensations, say of the leech, and still more the wholly unspecialized sensations of the amoeba, cannot be regarded as blends of some or all of those which we are said to receive through our five senses. We must rather suppose that sensations at the outset corresponded very closely with the general vital action of stimuli as distinct from their action on specially differentiated sensory apparatus. Even now we are still aware of the general effects of light, heat, fresh air, food, &c., as invigorating or depressing quite apart from their specific qualities. Hence the frequent use of the term general or common sensibility (*coenest/tesis*). But, though less definitely discriminated, the earlier, and what we call the lower, sensations are not any less concrete than the later and higher. They have been called general rather than specific, not because psychologically they lack any essential characteristic of sensation which those acquired later possess, but simply because physiologically they are not, like these, correlated to special sense-organs.

But, short of resolving such sensations into combinations of one primordial modification of consciousness, if we could Complexity conceive such, there are many interesting facts of which point clearly to a complexity that we can Sensations, seldom directly detect. Several of our supposed sensations of taste, e.g., are complicated with sensations of touch and smell: thus the pungency of pepper and the dryness of wine are tactual sensations, and their spicy flavours are really smells. How largely smells mingle with what we ordinarily take to be simply tastes is best brought home to us by a severe cold in the head, as this temporarily pre-vents the access of exhalations to the olfactory surfaces. The difference between the smooth feel of a polished surface and the roughness of one that is 2 Cf. W. A. Nagel, *Die Phylogenesse spezifischer Sinnesorgane*, *Bibliotheca zoologica* (1894), pp. 142.

unpolished, though to direct introspection an irresolvable difference of quality, is probably due to the fact that several nerveterminations are excited in each case: where the sensation is one of smoothness all are stimulated equally; where it is one of roughness the ridges compress the nerve-ends more, and the hollows compress them less, than the level parts do. The most striking instance in point, however, is furnished by the differences in musical sounds, to which the name timbre is given. To the inattentive or uninstructed ear notes or compound tones appear to be only qualitatively diverse and not to be complexes of simple tones. Yet it is possible with attention and practice to distinguish these partial tones in a note produced on one instrument, a horn, say, and to recognize that they are different from those of the same note produced on a different instrument, for example, a violin.

In like manner many persons believe that they can discriminate in certain colors, hence called mixed, the elementary colors of which they are held to be composed; red and yellow, for example, in orange, or blue and red in violet. But in so thinking they appear to be misled, partly by the resemblance that certainly exists between orange and red, on the one hand, and orange and yellow on the other, the two colors between which in the color spectrum it invariably stands; and partly by the knowledge that, as a pigment, orange is obtainable by the mixture of red and yellow pigments; and so in the other cases. As we shall see later, however (~ 39), in this particular case of sensory continua, resemblance is no proof of complexity. Were it otherwise we should have to conclude that a given tone, since this also resembles the two between which it is intermediate, ought to be a blend of both; whereas, in point of fact, the tone *d* though as regards pitch it has a certain resemblance to *c* and *e*, its neighbors on either side differs widely from the chord *c-e*, which is made up of these. In all cases in which the psychological complexity of a sensation is beyond dispute the partial sensations are distinguished by discernible differences of extensity, and usually of intensity as well. Thus, if the skin be touched by the point of a hot or cold bradawl the temperature sensation has not the punctual character of the touch but seems rather to surround this as a sort of penumbra. Similarly, the ground-tone of a clang-complex has not only a greater intensity but also a greater extensity than any of the over-tones.¹ There is also in such cases a certain rivalry or antagonism between the complex as an unanalysed whole and the complex as analysed, and even between the several partial sensations after such analysis. In the absence of such direct evidence it is unwarrantable to infer psychological complexity from complexity in the physical stimuli, even when this is really present. In the case of pigment mixture, however, there is no such physical complexity as is vulgarly supposed. And it is worth noting that white light is physically the most complex of all, whereas the answering sensation is not only simple but probably the most primitive of all visual sensations.

Every sensation within the fields of consciousness has sensibly some continuous duration and seems sensibly to admit of some continuous variation in intensity and exQuantitative tensity. But whether this quantitative continuity Continuity. of presentational change is more than. apparent has been questioned. Sensations of almost liminal intensity are found to fluctuate every few seconds, and, as already remarked, when the threshold of intensity is actually reached, they seem intermittently to appear and disappear, a fact which Hume long ago did not fail to notice. The results of numerous experiments, however, justify the conclusion that these variations are due primarily to oscillation of attention, and furnish so far no ground for the assumption that even the liminal sensation is discontinuous. But again we can only detect a difference of intensity when this is of finite amount and bears a certain constant ratio to the initial intensity with which it is compared a fact commonly known as Webers Law. But this imperfection in our power of discrimination is no proof that our sensations vary discontinuously; and not only is there no positive evidence in favor of such discontinuity, but it is altogether improbable on general grounds. Lastly, there is always more or less distinctness in the several nerve-endings as well as isolation of the nerve-fibres themselves. The skin, for example, when carefully explored, turns out to be a complex mosaic of so-called spots, severally responding to stimulation by sensations of pressure, heat, cold and pain. Bu~ from this to argue that the extensity of a sensation is really a mere aggregate without any continuity is on a par with calling a lake a Cf. Stumpf, *Toupsychologie*, ii. 58 seq.

collection of pools because it is fed by separate streams. If it could be shown that in the brain as a whole there is no functional continuity a formidable psychophysical problem would no doubt arise.

As regards the quality of sensationthe primitive sensation of sight appears to consist only of the single quality we call light, a quality which ranges in intensity from ~ a dazzling brightness that becomes painful and blinding down to a zero of complete darkness; a limit which, however, is never completely attained, since the retina is always more or less internally stimulatedhence what is called the eyes own light (*Eigenlicht*). The first responses to light-stimulation seem to be very much on a par with our own to diffused heat or cold; some organisms seek the light and others shun it. As little as our temperature-sense yields us a perception of form does the light-sense at this level yield any, Not until the stage of visual spatial perception is reached and some discrimination of form is possible, do black and white attain the meaning they now have for us. An object can be visually perceived only when its color or shade differs from that of the surrounding field; so far black as a secondary quality is on a par with color, that is to say, when we are talking of things it may be called a quality. But there is still an important difference; in a light field many colors 01 shades may be distinguished, but in a dark field none. Though it is correct to speak of perceiving a black object, must we not then maintain thatso far as it is really blackithe object yields us directly no sensation? Similarly, the piper is said to feel the holes in his whistle when actually he only touches the solid metal in which they are pierced; or the soldier is said to hear the tattoo, though he has no auditory sensation of the silence intervening between successive taps on the drum. And it has yet to be shown that there is any more justification for speaking of visual sensations without luminosity. Meanwhile we must maintain that in absolute darkness we do not see black, since we do not see at all. No doubt we are prone to identify the two concepts darkness and blackness, for what we may call their sensory content is the same, viz, the absence of visual sensation.

Whereas in nature the only diffused light we need consider is that emitted by the sun, the rays transmitted by the things about us vary in physical quality and in their effects upon protoplasm. As soon, therefore, as visual forms can be distinguished, a differentiation among light-sensations becomes obviously advantageous. The first colors to be differentiated were probablyyellow and blue, or perhaps it would be truer to say warm color and cold color, upon which there followed a further differentiation of the warm color into red and green.i It is interesting to note that all possible sensations of color constitute a specific continuum. We may represent it by a sphere, in which (a) the maximum of luminosity is at one pole and the minimum at the other; (b) the series of colors proper (red to violet and through purple back to red), constituting a closed line, are located round the equator or in zones parallel to it, according to shade; and (c) the amount of saturation (or absence of white) for any given zone of illumination increases with distance from the axis.

In dealing with the quality of auditory sensations we have to distinguish between the simple sensations called tones and the sensation-complexes, either clangs or noises, which result from their combination. Simple tones also constitute a qualitative continuum, but it has only one dimension, their so-called pitch; this may be represented by a straight line ranging between two more or less indefinite extremes. If intensity, that is to say loudness, is taken into account, we have of course a continuum of two dimensions. The tone-continuum is also universally regarded as steadily diminishing in massiveness or extensity as the pitch rises. And, in fact, as we approach the lower As a matter of fact there are no objects absolutely black, none that are devoid of all lustre and completely absorbent of light. But this does not affect the argument.

It is assumed that the physiological differentiation of the retina has advanced from the centre, where vision is most distinct, towards the margin where it is least so; and it is found that stimulation of the margin yields none but achromatic sensations, stimulation of a certain intermediate zone only sensations of yellow or blue, and central stimulation alone sensations of every hue. Further, total color-blindness is extremely rare, whereas red-green color-blindness is comparatively common.

At the limit, the so-called deep or grave tones become less even, till at length distinct, more or less pervasive, tremors are felt rather than heard as distinct impulses on the ear-drum. The so-called high or acute tones again, as we approach their limit, are accompanied by tactual, often more or less painful, sensations, as if the ear were pierced by a fine needle. This connection of auditory with tactual sensations confirms the independent evidence of biology pointing to an original differentiation of sound from touch. The special characteristics of tone-complexes, whether clangs or noises, are due to the remarkable analytic power which belongs to the sense of hearing. Two colors cannot be simultaneously presented unless they are differently localized, but several tones may form one complex whole within which they, as partial tones, are distinguishable, though spatially undifferentiated.

Unlike the higher senses of sight and hearing, the lower senses of touch, taste, smell, &c., do not constitute qualitative continua. Temperatures may indeed be represented as ranging in opposite directions, i.e. through heat or through cold, between a zero of no sensation and the organic sensations due to the destructive action of both extremes, heat and cold alike. But the continuity in this case is intensive rather than qualitative. Tastes fall into the four isolated qualities known as sweet, sour, bitter, saline; but smells hardly admit of classification at all. Sensations of touch and sight have in a pre-eminent degree a certain peculiar continuity which differentiations of extensity entail, and which we shall have presently to consider further under the title of local signs. The various sensations classed together as organic, hunger, thirst, physical pain, &c., are left to the physiologist to describe.

Our motor presentations contrast with the sensory by their want of striking qualitative differences. They are divided into two groups: (a) motor presentations proper and Movements (b) auxilio-motor or kinaesthetic presentations. The former answer to our feelings of muscular effort or feelings of innervation. The latter are those presentations due to the straining of tendons, stretching and flexing of the skin, and the like, by which the healthy man knows that his efforts to move are followed by movement, and so knows the position of his body and limbs. It is owing to the absence of these presentations that the anaesthetic patient cannot directly tell whether his efforts are effectual or not, nor in what position his limbs have been placed by movements from without. Thus under normal circumstances motor presentations are always accompanied by auxilio-motor; but in disease and in passive movements they are separated and their distinctness thus made manifest. Originally we may suppose kinaesthetic presentations to have formed one imperfectly differentiated continuum, but now, as with sensations, they have become a collection of special continua, viz, the groups of movements possible to each limb and certain combinations of these movements.

But whereas kinaesthetic presentations were commonly allowed to be purely sensory, the concomitants of centripetal excitations hence the older name of muscular or sixth sense applied to them by Sir Charles Bell, Weber, Sir William Hamilton and others concerning motor presentations proper, a very different view, first tentatively advanced by the great physiologist Johannes Müller, and adopted by Helmholtz, Vvundt, and especially by Bain, long prevailed. It is, however, now generally discredited, if not completely overthrown.³ According to this view, the characteristic feeling of exerted force must be regarded, Bain maintained, not as arising from an inward transmission. .. but as the

concomitant of the outgoing current by which the muscles are stimulated to act (op. cit. p. 79). The necessity for this assumption has certainly not been established on physiological grounds, nor apparently did Bain rely primarily on these; for at the very outset of his discussion we find him saying that action is a more intimate and inseparable property of our constitution than any of our sensations, and enters as a component part into every one of our senses (op. cit. p. 59). But this important psychological truth is affirmed as strenuously by some, at any rate (e.g. Professor James) of Bains opponents as it was by Bain himself. Unhappily many, under the same psychophysical Cf. Bastian, *The Brain as an Organ of Mind* (1880), pp. 691 sqq. Ferrier, *The Functions of the Brain* (1886), 2nd ed. pp. 382 sqq.; James, *Principles of Psychology* (1890), cb xxvi.

bias and so induced, like the upholders of this innervation theory, to look for evidence of subjective activity in the wrong place, have been led to doubt or to deny the reality of this activity altogether. In fact, this theory, while it lasted, tended to sustain an undue separation of so-called sensory from so-called motor presentations, as if living experience were literally an alternation of two independent states, one wholly passive and the other wholly active, corresponding to the anatomical (distinction of organs of sense and organs of movement. The subject of experience or Ego does not pass to and fro between a sensorium commune or intelligence department and a motor urn commune or executive, is not in successive intervals receptive and active, still less always passive, but rather always actively en rapport with an active Non-Ego, commonly called the External World.

Perception.

17. In treating apart of the differentiation of our sensory and motor continua, as resulting merely in a number of distinguishable sensations and movements, we have been compelled by the exigencies of exposition Integration, to leave out of sight another process which really advances *pan passu* with this differentiation, viz, the integration or synthesis of these proximately elementary presentations into those complex presentations which are called percepts, intuitions, sensori-motor reactions and the like. It is, of course, not to be supposed that in the evolution of mind any creature attained to such variety of distinct sensations and movements as a human being possesses without making even the first step towards building up this material into the most rudimentary knowledge and action. On the contrary, there is every reason to think, as has been said already incidentally, that further differentiation was helped by previous integration, that perception prepared the way for distincter sensations, and purposive action for more variotis movements. This process of synthesis, which is in the truest sense a psychical process, deserves some general consideration before we proceed to the several complexes that result from it. Most complexes, certainly the most important, are consequences of that principle of subjective selection whereby interesting sensations lead through the intervention of feeling to movements; and the movements that turn out to subserve such interest come to have a share in it. In this way which we need not stay to examine more closely now it happens that a certain sensation, comparatively intense, and a certain movement, definite enough to control that sensation, engage attention, to the more or less complete exclusion of the other less intense sensations and more diffused movements that accompany them. Apart from this intervention of controlling movements, the presentation-continuum, however much differentiated, would remain for all purposes of knowledge little better than the disconnected manifold for which Kant took it. At the same time it is to be remembered that the subject obtains command of particular movements out of all the mass involved in emotional expression only because such movements prove on occurrence adapted to control certain sensations. A long process, in which natural selection probably played the chief part at the outset subjective selection becoming more prominent as the process advanced must have been necessary to secure as much purposive movement as even a worm displays. We must look to subjective interest to explain, so far as psychological explanation is possible, those syntheses of motor and sensory presentations which we call spatial perception and the intuitions of material things. For example, some of the earliest lessons of this kind seem to be acquired as we may presently see, in the process of exploring the body by means of the limbs, a process for which grounds in subjective interest can obviously never be wanting.

Perception sometimes means only the recognition of a sensation or movement as distinct from its original presentation, thus implying the more or less definite revival Meaning of .

perception, of certain residua of past experience which resembled the present. More frequently it is used as the equivalent of what has been otherwise called the localization and projection of sensation—that is to say, of sensations apprehended either as affections of some part of our own body regarded as extended or as states of some foreign body beyond it. According to a former usage, strictly taken, there might be perception without any spatial presentation at all; a sensation that had been attended to a few times might be perceived as familiar. According to the latter, an entirely new sensation, provided it were complicated with motor experiences in the way required for its localization or projection, would be perceived. But as a matter of fact actual perception probably invariably includes both cases: impressions which we recognize we also localize or project, and impressions which are localized or projected are never entirely new—they are, at least, perceived as sounds or colors or aches, &c. It will, however, frequently happen that we are specially concerned with only one side of the whole process, as is the case with a taster or a color-mixer on the one hand, or, on the other, with the patient who is perplexed to decide whether what he sees and hears is subjective, or whether it is real. But there is still a distinction called for: perception as we now know it involves not only recognition (or assimilation) and localization, or spatial reference, as it is not very happily termed, but it usually involves objective reference as well. We may perceive sound or light without any presentation of that which sounds or shines; but none the less we do not regard such sound or light as merely the object of our attention, as having only immanent existence, but as the quality or change or state of a thing, an object distinct not only from the subject attending but from all presentations whatever to which it attends. Here again the actual separation is impossible, because this factor in perception has been so intertwined throughout our mental development with the other two. Still a careful psychological analysis will show that such reification, as we might almost call it, has depended on special circumstances, which we can at any rate conceive absent. These special circumstances are briefly the constant conjunctions and successions of impressions, for which psychology can give no reason, and the constant movements to which they prompt. Thus we receive together, e.g. those impressions we now recognize as severally the scent, color, and feel of the rose we pluck and handle. We might call each a percept, and the whole a complex percept. But there is more in such a complex than a sum of partial percepts; there is the apprehension or intuition of the rose as a thing having this scent, color and texture. We have, then, under perception to consider (a) the recognition and (b) the localization of impressions, and (c) the intuition of things.,

18. The range of the terms recognition or assimilation of impressions is wide: between the simplest mental process they may be supposed to denote and the most complex Assimilation there is a great difference. The penguin that watched unmoved the first landing of man upon its lonely rock becomes as wild and wary as more civilized fowl after two or three visits from its molester: it then recognizes that featherless biped. His friends at home also recognize him though altered by years of peril and exposure. In the latter case some trick of voice or manner, some striking feature, calls up and sustains a crowd of memories of the traveller in the past events leading on to the present scene. The two recognitions are widely different, and it is from states of mind more like the latter than the former that psychologists have usually drawn their description of perception. At the outset, they say, we have a primary presentation or impression P, and after sundry repetitions there remains a mass or a series of P residua, P₁P₂...; perception ensues when, sooner or later, P, calls up and associates itself with these representations or ideas. Much of our later perception, and especially when we are at all interested, awakens, no doubt, both distinct memories and distinct expectations; but, since these imply previous perceptions, it is obvious that the earliest form of recognition, or, as we might better call it, assimilation, must be free from such complications, can have nothing in it answering to the overt judgment, F, is a P. Assimilation involves retentiveness and differentiation, as we have seen, and prepares the way for re-presentation; but in itself there is no confronting the new with the old, no determination of likeness, and no subsequent classification. The pure sensation we may regard as a psychological myth; and the simple image, or such sensation revived, seems equally mythical, as we may see later on. The nth sensation is not like the first: it is a change in a presentation-continuum that has itself been changed by those preceding; and it cannot with any propriety be said to reproduce these past sensations, for they never had the individuality which such reproduction implies. Nor does it associate with images like itself, since where there is association there must first have been distinctness, and what can be associated can also, for some good time at least, be dissociated.

19. To treat of the localization of impressions is really to give an account of the steps by which the psychological Localization individual comes to a knowledge of space. At of Impres- the outset of such an inquiry it seems desirable first 510115. of all to make plain what lies within our purview, and what does not, lest we disturb the peace of those who, confounding philosophy and psychology, are ever eager to fight for or against the a priori character of this element of knowledge. That space is a priori in the epistemological sense it is no concern of the psychologist either to assert or to deny. Psychologically a priori or original in such sense that it has been either actually or potentially an element in all presentation from the very beginning it certainly is not. It will help to make this matter clearer if we distinguish what philosophers frequently confuse, viz, the concrete spatial experiences, constituting actual localization for the individual, and the abstract concept of space, generalized from what is found to be common in such experiences. A gannets mind possessed of a philosopher, if such a conceit may be allowed, would certainly afford its tenant very different spatial experiences from those he might share if he took up his quarters in a mole. So, any one who has revisited in after years a place from which he had been absent since childhood knows how largely a personal equation, as it were, enters into his spatial perceptions. Or the same truth may be brought home to him if, walking with a friend more athletic than himself, they come upon a ditch, which both know to be twelve feet wide, but which the one feels he can clear by a jump and the other feels he cannot. In the concrete up is much more than a different direction from along. The hen-harrier, which cannot soar, is indifferent to a quarry a hundred feet above it to which the peregrine, built for soaring, would at once give chase but is on the alert as soon as it deseries prey of the same apparent magnitude, but upon the ground. Similarly, in the concrete, the body is the origin or datum to which all positions are referred, and such positions differ not merely quantitatively but qualitatively. Moreover, our various bodily movements and their combinations constitute a network of co-ordinates, qualitatively distinguishable but geometrically, so to put it, both redundant and incomplete. It is a long way from these facts of perception, which the brutes share with us, to that scientific concept of space as having three dimensions and no qualitative differences which we have elaborated by the aid of thought and language, and which reason may see to be the logical presupposition of what in the order of mental development has chronologically preceded it. That the experience of space is not psychologically original seems obvious --quite apart from any successful explanation of its origin from the mere consideration of its complexity. Thus we must have a plurality of objects A out of B, B beside C, distant from D, and so on; and these relations of externality, juxtaposition, and size or distance imply further specialization; for with a mere plurality of objects we have not straightway spatia differences. Juxtaposition, e.g. is only possible when the related objects form a continuum; but, again, not any continuity is extensive. Now how has this complexity come about?

The first condition of spatial experience seems to lie in what has been noted above (~ 11) as the extensity of sensation. This is not much, we may allow is original; for the longer we

experience, reflect the more clearly we see that no combination or association of sensations varying only in intensity and quality, not even if motor presentations are added, will account for this space-element in our perceptions. A series of touches a, b, c, d may be combined with a series of movements m1, in1, nif, m4 both series may be reversed; and finally the touches may be presented simultaneously. In this way we can attain the knowledge of the coexistence of objects that have a certain quasi-distance between them, and such experience is an important element in our perception of space; but it is not the whole of it. For, as has been already remarked by critics of the associationist psychology, we have an experience very similar to this in singing and hearing musical notes or the chromatic scale. The most elaborate attempt to get extensity out of succession and coexistence is that of Herbert Spencer. He has done, perhaps, all that can be done, and only to make it the more plain that the entire procedure is a repetition. We do not first experience a succession of touches or of retinal excitations by means of movements, and then, when these impressions are simultaneously presented, regard them as extensive, because they are associated with or symbolize the original series of movements; but, before and apart from movement altogether, we experience that massiveness or extensity of impressions in which movements enable us to find positions, and also to measure. But it will be objected, perhaps not without impatience, that this amounts to the monstrous absurdity of making the contents of consciousness extended. The edge of this objection will best be turned by rendering the concept of

extensity more precise. Thus, suppose a postage stamp pasted on the back of the hand; we have in consequence a certain sensation. If another be added beside it, the new experience would not be adequately described by merely saying we have a greater quantity of sensation, for intensity involves quantity, and increased intensity is not what is meant. For a sensation of a certain intensity, say a sensation of red, cannot be changed into one having two qualities, red and blue, leaving the intensity unchanged; but with extensity this change is possible. For one of the postage stamps a piece of wet cloth of the same size might be substituted and the massiveness of the compound sensation remain very much the same. Intensity belongs to what may be called graded quantity: it admits of increment or decrement, but is not a sum of parts. Extensity, on the other hand, does imply plurality: we might call it latent or merged plurality or a ground of plurality, inasmuch as to say that a single presentation has massiveness is to say that a portion of the presentation-continuum at the moment undifferentiated is capable of differentiation.

Attributing this property of extensity to the presentation-continuum as a whole, we may call the relation of any particular sensation to this larger whole its local sign, and can see L ~

that, so long as the extensity of a presentation admits of diminution without the presentation becoming nil such presentation either has or may have two or more local signs or parts, taken separately, though identical in quality and intensity, having a different relation to the whole. Such difference of relation must be regarded fundamentally as a ground or possibility of distinctness of sign whether as being the ground or possibility of different complexes or otherwise rather than as being from the beginning such an overt difference as the term local sign, when used by Lotze, is meant to imply.¹ From 2 To illustrate what is meant by different complexes it will be enough to refer to the psychological implications of the fact that scarcely two portions of the sensitive surface of the human body are anatomically alike. Not only in the distribution and character of this point of view we may say that more partial presentations are concerned in the sensation corresponding to two stamps than in that corresponding to one. The fact that these partial presentations, though identical in quality and intensity, on the one hand are not wholly identical, and on the other are presented only as a quantity and not as a plurality, is explained by the distinctness along with the continuity of their local signs. Assuming that to every distinguishable part of the body there corresponds a local sign, we may allow that at any moment only a certain portion of this continuum is definitely within the field of consciousness; but no one will maintain that a part of one hand is ever felt as continuous with part of the other or with part of the face. Local signs have thus an invariable relation to each other: two continuous signs are not one day coincident and the next widely separate. This last fact is only implied in the mere massiveness of a sensation in so far as this admits of differentiation into local signs. We have, then, when the differentiation is accomplished, a plurality of presentations constituting an extensive continuum, presented simultaneously, and having certain fixed and invariable relations to each other. Of such experience the typical case is that of passive touch, though the other senses exemplify it. It must be allowed that our concept of space in like manner involves a fixed continuity of positions; but then it involves, further, the possibility of movement. Now in the continuum of local signs there is nothing whatever of this; we might call this continuum an implicit plenum. It only becomes the presentation of occupied space after its several local signs are complicated in an orderly way with active touches, when in fact we have experienced the contrast of movements with contact and movements without, i.e. in vacuo. It is quite true that we cannot now think of this plenum except as a space, because we cannot divest ourselves of these motor experiences by which we have explored it. We can, however, form some idea of the difference between the perception of space and this one element in the perception by contrasting massive internal sensations with massive superficial ones, or the general sensation of the body as an animated organism with our perception of it as extended. Or we may express the difference by remarking that extension implies the distinction of here and there, while extensity rather suggests ubiquity.

It must seem strange, if this conception of extensity is essential to a psychological theory of space, that it has escaped notice so long. The reason may be that in investigations into the origin of our knowledge of space it was always the concept of space and not our concrete space percepts that came up for examination. Now in space as we conceive it one position is distinguishable from another solely by its co-ordinates, i.e. by the magnitude and signs of certain lines and angles, as referred to a certain datum, position or origin; - and these elements, our motor experiences seem fully

to explain. But on reflection we ought, surely, to be puzzled by the question, how these coexistent positions could be known before those movements were made which constitute them different positions. The link we thus suspect to be missing is supplied by the more concrete experience we obtain from our own body, in which two positions have qualitative difference or local color independently of movement. True, such positions would not be known as spatial without movement; but neither would the movement be known as spatial had those positions no other difference than such as the nerve-endings but in the variety of the underlying parts in bone, in another fatty tissue, in others tendons or muscle variously arranged we find ample ground for diversity in the local coloring of sensations. And comparative zoology helps us to see how such diversity has been developed as external impression and the answering movements have gradually differentiated an organism originally almost homogeneous and symmetrical. Between one point and another on the surface of a sphere there is no ground of difference; but this is no longer true if the sphere revolves round fixed axis, still less if it also runs in one direction along its axis.

The improvements in the sensibility of our spatial sense consequent on practice, its variations under the action of drugs, &c., are obviously no real contradiction to this; on the contrary, such facts are all in favor of making extensity a distinct factor in our space experience and one more fundamental than that of movement.

arises from movement. In a balloon drifting steadily in a fog we should have no more experience of change of position than if it hung becalmed and still.

We may now consider the part which movement plays in elaborating the presentations of this dimensionless continuum into percepts of space. In so doing we must bear in mind that while this continuum implies the inco-presentability of two impressions having the same local sign, it allows not only of the presentation of sensations of varying massiveness, but also of a sensation involving the whole continuum simultaneously, as in Bain's classic example of the warm bath. As regards the motor element itself, the first point of importance is the inco-presentability and invariability of a successive series of auxiliomotor or kinaesthetic presentations, P_1, P_2, P_3, P_4 . P_1 cannot be presented along with P_2 , and from P_4 it is impossible to reach P_1 again save through P_3 and P_2 . Such a series, taken alone, could afford us, it is evident, nothing but the knowledge of an invariable sequence of impressions which it was in our own power to produce. Calling the series of P s positional signs, the contrast between them and local signs is obvious. Both are invariable, but succession characterizes the one, simultaneity the other; the one yields potential position without place, the other potential place (or *locus*) without position; hence we call them both merely signs. But in the course of the movements necessary to the exploration of the body probably our earliest lesson in spatial perception these positional signs receive a new significance from the active and passive touches that accompany them, just as they impart to these last a significance they could never have alone.

It is only in the resulting complex that we have the presentations of actual position and of spatial magnitude. For space, though conceived as a coexistent continuum, excludes the notion of omnipresence or ubiquity; two positions P_1 and P_2 , must coexist, but they are not strictly distinct positions so long as we conceive ourselves present in the same sense in both. But, if F_1 and F_2 are, e.g. two impressions produced by compass points touching two different spots as P_1 and P_2 : on the hand or arm, and we place a finger upon P_1 and move it to P_2 , experiencing thereby the series P_1, P_2, P_3, P_4 , this series constitutes P_1 and P_2 into positions and also invests F_1 and F_2 with a relation not of mere distinctness as *points* but of definite distance. The resulting complex perhaps admits of symbolization as follows: $F_1 F_2, F_1 F_2, F_1 F_2, F_1 F_2$ Here the first line represents a portion of the tactual continuum, F_1 and F_2 being distinct feels, if we may so say, or passive touches presented along with the fainter sensations of the continuum as a whole, which the general body-sense involves. T stands for the active touch of the exploring finger and P_1 for the corresponding kinaesthetic sensation regarded as positional sign; the rest of the succession, as not actually present at this stage but capable of revival from past explorations, is symbolized by the t_1 and p_2 .

When the series of movements is accompanied by active touches without passive there arises the distinction between one's own body and foreign bodies; when the initial movement of series is accompanied by both active and passive touches, the final movement by active touches only, and the intermediate movements are unaccompanied by either, we get the further presentation of empty space lying between us and them only when by frequent experience of

contacts along with those intermediate movements we have come to know all movements as not only succession but change of position. Thus active touches come at length to be projected, passive touches alone being localized in the stricter sense. But in actual fact, of course, the localization of one impression is not perfect - before that of another is begun, and we must take care lest our necessarily meagre exposition give rise to the mistaken notion that localizing an impression consists wholly and solely in performing or imaging the particular movements necessary to add active touches to a group of passive impressions. That this cannot suffice is evident merely from the consideration that a single position out of relation to all other positions is a contradiction. Localization, though it depends on many special experiences of the kind described, is not like an artificial product which is completed a part at a time, but is essentially a growth, its several constituents advancing together in definiteness and interconnexion. So far has this development advanced that we do not even imagine the special movements which the localization of an impression implies, that is to say, they are no longer distinctly represented as they would be if we definitely intended to make them: the past experiences are retained, but too much blended in the mere perception to be appropriately spoken of as remembered or imaged.

As regards this almost instinctive character of even our earliest spatial concepts it will be appropriate to animadvert on a misleading implication in the current use of such terms as localization, projection, bodily reference, spatial reference and the like. The implication is that external space, or the body as extended, is in some sort presented or supposed apart from the localization, projection or reference of impressions to such space. That it may be possible to put a book in its place on a shelf there must be (1) the book, and (2), distinct and apart from it, the place on the shelf. But in the evolution of our spatial experience impressions and positions are not thus presented apart. We can have, or at least we can suppose, an impression which is recognized without being localized as has been already said; but if it is localized this means that a more complex presentation is formed by the addition of new elements, not that a second distinct object is presented and some indescribable connection established between the impression and it, still less that the impression is referred to something not strictly presented at all. The truth is that the body as extended is from the psychological point of view not perceived at all apart from localized impressions. In like manner impressions projected (or the absence of impressions projected) constitute all that is perceived as the occupied (or unoccupied) space beyond. It is not till a much later stage, after many varying experiences of different impressions similarly localized or projected, that even the mere materials are present for the formation of such an abstract concept of space as spatial reference implies. Psychologists, being themselves at this later stage, are apt to commit the oversight of introducing it into the earlier stage which they have to expound.

20. In a complex percept, such as that of an orange or a piece of wax, may be distinguished the following points concerning account: (a) the object's reality, (b) its solidity or occupation of space, (c) its unity and complexity, (d) its permanence, or rather its continuity in time and (e) its substantiality and the connection of its attributes and powers. Though, in fact, these items are most intimately blended, our exposition will be clearer if we consider each for a moment apart.

a, The terms actuality and reality have each more than one meaning. Thus what is real, in the sense of material, is opposed to what is mental; as the existent or actual it is *Actual-World-Independent-Yet* or opposed to the non-existent; and again, what is actual is distinguished from what is possible or necessary. But here both terms, with a certain shade of difference, in so far as actual is more appropriate to movements and events, are used, in antithesis to whatever is ideal or represented, for what is sense-given or presented. This seems at least their primary psychological meaning; and it is the one most in vogue in English philosophy at any rate, over-tinged as that is with psychology.² Any examination of this characteristic will be best deferred till we come to deal with ideation generally (see 21 below) - Meanwhile it may suffice to remark that reality or actuality is not a single distinct element added to the others which enter into the complex presentation we call a thing, i Cf. on this point Poincaré, *La Science et l'hypothèse*, pp. 74 sqq. ² Thus Locke says, Our simple ideas [presentations or impressions, as we should now say] are all real - - and not fictions at pleasure; for the mind... can make to itself no simple idea more than what it has received (*Essay*, ii. 30, 2). And Berkeley says, The ideas imprinted on the senses by the Author of Nature are called real things; and those excited in the imagination, being less regular, vivid and constant, are more properly termed ideas or images of

things, which they copy or represent (Prin. of Hum. Know., pt. i. 33).

as color or solidity may be. Neither is it a special relation among these elements, like that of substance and attribute, for example. In these respects the real and the ideal, the actual and the possible, are alike; all the elements or qualities within the complex, and all the relations of those elements to each other, are the same in the rose represented as in the presented rose. The difference turns not upon what these elements are, regarded as qualities or relations presented or represented, but upon whatever it is that distinguishes the presentation from the representation of any given qualities or relations. Now this distinction, as we shall see, depends partly upon the relation of such complex presentation to other presentations in consciousness with it, partly upon its relation as a presentation to the subject whose presentation it is. In this respect we find a difference, not only between the simple qualities, such as cold, hard, red and sweet in strawberry ice, e.g. as presented and as represented, but also, though less conspicuously, in the spatial, and even the temporal, relations which enter into our intuition as distinct from our imagination of it. So then, reality or actuality is not strictly an item by itself, but a characteristic of all the items that follow.

b. In the so-called physical solidity or impenetrability of things our properly motor presentations or feelings of effort or innervation come specially into play. They are not entirely absent in, those movements of body.

exploration by which we attain a knowledge of space; but it is when these movements are definitely resisted, or are only possible by increased effort, that we reach the full meaning of body as that which occupies space. Heat and cold, light and sound, the natural man regards as real, and by and by perhaps as due to the powers of things known or unknown, but not as themselves things. At the outset things are all corporeal like his own body, the first and archetypal thing, that is to say: things are intuited only when touch is accompanied by pressure; and, though at a later stage passive touch without pressure may suffice, this is only because pressures depending on a subjective initiative, i.e. on voluntary muscular exertion, have been previously experienced. It is of more than psychological interest to remark how the primordial factor in materiality is thus due to the projection of a subjectively determined reaction to that action of a not-self of which sense-impressions consist an action of the not-self which, of course, is not known as such till this projection of the subjective reaction has taken place. Still we must remember that accompanying sense-impressions are a condition of its projection: muscular effort without simultaneous sensations of contact would not yield the distinct presentation of something resistant occupying the space into which we have moved and would move again. Nay more, it is in the highest degree an essential circumstance in this experience that muscular effort, though subjectively initiated, is still only possible when there is contact with something that, as it seems, is making an effort the counterpart of our own. But this something is so far no more than thing-stuff; without the elements next to be considered our psychological individual would fall short of the complete intuition of distinct things.

c. The remaining important factors in the psychological constitution of things might be described in general terms as the time-relations of their components. Such relations are themselves in no way psychologically determined; impressions recur with a certain order or want of order quite independently of the subjects interest or of any psychological principles of synthesis or association whatever. It is essential that impressions should recur, and recur as they have previously occurred, if knowledge is ever to begin; out of a continual chaos of sensation, all matter and no form, such as some philosophers describe, nothing but chaos could result. But a flux of impressions having this real or sense-given order will not suffice; there must be also attention to and retention of the order, and these indispensable processes at least are psychological.

But for its familiarity we should marvel at the fact that out of the variety of impressions simultaneously presented we do not instantly group together all the sounds and all the colors, all the touches and all the smells; but, dividing what is given together, single out a certain sound or smell as belonging together with a certain color and feel, similarly singled out from the rest, to what we call one thing. We might wonder, too those at least who have made so much of association by similarity ought to wonder that, say, the white of snow calls up directly, not other shades of white or other colors, but the expectation of cold or of powdery softness. The first step in this process has been the simultaneous projection into the same occupied space of the several impressions which we thus come to regard as

the qualities of the body filling it. Yet such simultaneous and coincident projection would avail but little unless the constituent impressions were again and again repeated in like order so as to prompt anew the same grouping, and unless, further, this constancy in the one group was present along with changes in other groups and in the general field. There is nothing in its first experience to tell the infant that the song of the bird does not inhere in the hawthorn whence the notes proceed, but that the fragrance of the mayflower does. It is only where a group, as a whole, has been found to change its position relatively to other groups, and apart from casual relations to be independent of changes of position among them, that such complexes can become distinct unities and yield a world of things. Again, because things are so often a world within themselves, their several parts or members not only having distinguishing qualities but moving and changing with more or less independence of the rest, it comes about that what is from one point of view one thing becomes from another point of view several like a tree with its separable branches and fruits, for example. Wherein then, more precisely, does the unity of a thing consist? This question, so far as it here admits of answer, carries us over to temporal continuity.

d. Amidst all the change above described there is one thing comparatively fixed: our own body is both constant as a group and a constant item in every field of groups; and not Temporal .

continuity only so, but it is beyond all other things an object of continual and peculiar interest, inasmuch as our earliest pleasures and pains depend solely upon it and what affects it. The body becomes, in fact, the earliest form of self, the first datum for our later conceptions of permanence and individuality. A continuity like that of self is then transferred to other bodies which resemble our own, so far as our direct experience goes, in passing continuously from place to place and undergoing only partial and gradual changes of form and quality. As we have existed or, more exactly, as the body has been continuously presented during the interval between two encounters with some other recognized body, so this is regarded as having continuously existed during its absence from us. However permanent we suppose the conscious subject to be, it is hard to see how, without the continuous presentation to if of such a group as the bodily self, we should ever be prompted to resolve the discontinuous presentations of external things into a continuity of existence. It might be said: Since the second presentation of a particular group would, by the mere workings of psychical laws, coalesce with the image of the first, this coalescence would suffice to generate the concept, of continued existence. But such assimilation is only the ground of an intellectual identification and furnishes no motive, one way or the other, for real identification: between a second presentation of A and the presentation at different times of two As there is so far no difference. Real identity no more involves exact similarity than exact similarity involves sameness of things; on the contrary, we are wont to find the same thing alter with time, so that exact similarity after an interval, so far from suggesting one thing, is often the surest proof that there are two concerned. Of such real identity, then, it would seem we must have direct experience; and we have it in the continuous presentation of the bodily self; apart from this it could not be generated by association among changing presentations. Other bodies being in the first instance personified, that then is regarded as one thing from whatever point of view we look at it, whether as part of a larger thing or as itself compounded of such parts which has had one beginning in time. But what is it that has thus a beginning and continues indefinitely? This leads to our last point.

e. So far we have been concerned only with the combination of sensory and motor presentations into groups and with the differentiation of group from group; the relations to ~ b each other of the constituents of each group still aZt.~~ an for the most part remain. To these relations in the main must be referred the correlative concepts of substance and attribute, the distinction in substances of qualities and powers, of primary qualities and secondary, and the like. i Of all the constituents of things only one is universally present, that above described as physical solidity, which presents itself according to circumstances as impenetrability, resistance or weight. Things differing in temperature, color, taste and smell agree in resisting compression, in filling space. Because of this quality we regard the wind as a thing, though it has neither shape nor color, while a shadow, though it has both but not resistance, is the very type of nothingness. This constituent is invariable, while other qualities are either absent or change form altering, color disappearing with light, sound and smells intermitting. Many of the other qualities colour, temperature, sound, smell increase in intensity if we advance till we touch a body occupying space; with the same movement too its visual magnitude varies. At the moment of contact an unvarying tactual magnitude is ascertained, while the other

qualities and the visual magnitude reach a fixed maximum; then first it becomes possible by effort to change or attempt to change the position and form of what we apprehend. This tangible plenum we thenceforth regard as the seat and source of all the qualities we project into it. In other words, that which occupies space is psychologically the substantial; the other real constituents are but its properties or attributes, the marks or manifestations which lead us to expect its presence.

Imagination or Ideation.¹

21. Before the intuition of things has reached a stage so complete and definite as that just described, imagination or ideation as distinct from perception has well begun. In Impressions passing to the consideration of this higher form of and Ideas. mental life we must endeavour first of all analytically to distinguish the two as precisely as may be and then to trace the gradual development of the higher.

To begin, it is very questionable whether Hume was right in applying Lockes distinction of simple and complex to ideas in the narrower sense as well as to impressions. That idea of red, says Hume, which we form in the dark and that impression which strikes our eyes in the sunshine differ only in degree, not in nature.³ But what he seems to have overlooked is that, whereas we may have a mere sensation red, we can only have an image or representation of a red thing or a red form, i.e. of red in some way ideally projected or intuited. In other words, there are no ideas though there are concepts answering to simple or isolated impressions. The synthesis which has taken place in the evolution of the percept can only partially fail in the idea, and never so far as to leave us with a chaotic manifold of mere sensational remnants. On the contrary, we find that in constructive imagination, a new kind of effort is often requisite in order partially to dissociate these representational complexes as a preliminary to new combinations. But it is doubtful whether the results of such an analysis are ever the ultimate elements of the percept, that is, merely isolated impressions in a fainter form. We may now try to ascertain further the characteristic marks which distinguish what is imaged from what is perceived.

The distinction between the thing and its properties is one that might be more fully treated under the head of Thought and Conception. Still, inasmuch as the material warrant for these concepts is contained more or less implicitly in our percepts, some consideration of it is in place here.

¹ Ideation a word of my own coining, says James Mill. *Treatise of Human Nature*, bk. i. pt. i. ~ I.

The most obvious difference is that which Hume called the force or liveliness of primary presentations as compared with secondary presentations. But what exactly is it that we are to understand by this somewhat figurative Ideas, language? A simple difference of intensity cannot be all that is meant, for though we may be momentarily confused we can perfectly well distinguish the faintest impression from an image; moreover, we can reproduce such faintest impressions in idea. The whole subject of the intensity of representations awaits investigation. Between moonlight and sunlight or between midday and dawn we can discriminate many grades of intensity; but it does not appear that there is any corresponding variation of intensity between them when they are not seen but imagined. Many persons suppose they can imagine a waxing or a waning sound or the gradual abatement of an intense pain; but what really happens in such cases is probably not a rise and fall in the intensity of a single representation, but a change in the complex represented. In the primary presentation there has been a change of quality along with change of intensity, and not only so, but most frequently a change in the muscular adaptations of the sense-organs too, to say nothing of organic sensations accompanying these changes. A representation of some or all of these attendants is perhaps what takes place when variations of intensity are supposed to be reproduced. Again, hallucinations are often described as abnormally intense images which simply, by reason of their intensity, are mistaken for percepts. But such statement, though supported by very high authority, is almost certainly false, and would probably never have been made if physiological and epistemological considerations had been excluded as they ought to have been. Hallucinations, when carefully examined, seem just as much as percepts to contain among their constituents some primary presentation either a so-called subjective sensation of sight and hearing or some organic sensation due to deranged circulation or secretion. Intensity alone, then, will not suffice to discriminate between impressions and images.

What we may call superior steadiness is perhaps a more constant and not less striking characteristic of percepts. Ideas are not only in a continual flux, but even when we attempt forcibly to detain one it varies continually in clearness and completeness, reminding one of nothing so much as of the illuminated devices made of gas jets, common at fetes, when the wind sweeps across them, momentarily obliterating one part and at the same time intensifying another. There is not this perpetual flow and flicker in what we perceive. The impressions entering consciousness at any one moment are psychologically independent of each other; they are equally independent of the impressions and images presented the moment before--independent, *ic.* as regards their order and character, not, of course, as regards the share of attention they secure. Attention to be concentrated in one direction must be withdrawn from another, and images may absorb it to the exclusion of impressions as readily as a first impression to the exclusion of a second. But, when attention is secured, a faint impression has a fixity and definiteness lacking in the case of even vivid ideas. One ground for this definiteness and independence lies in the localization or projection which accompanies all perception. But why, if so, it might be asked, do we not confound percept and image when what we imagine is imagined as definitely localized and projected? Because we have a contrary percept to give the image the lie; where this fails, as in dreams, or where, as in hallucination, the image obtains in other ways the fixity characteristic of impressions, such confusion does in fact result. But in normal waking life we have the whole presentation-continuum, as it were, occupied and in operation: we are distinctly conscious of being embodied and having our senses about us.

But how is this contrariety between impression and image possible? With eyes wide open, and while clearly aware of the actual field of sight and its filling, one can recall or imagine a wholly different scene: lying warm in bed one can imagine oneself out walking in the cold. It is useless to say the times are different, that what is perceived is present and what is imaged is past or future. The images, it is true, have certain temporal marks of which more presently by which they may be referred to what is past or future; but as imaged they are present, and, as we have just observed, are regarded as actual whenever there are no correcting impressions. We cannot at once see the sky red and blue; how is it we can imagine it the one while perceiving it to be the other? When we attempt to make the field of sight at once red and blue, as in looking through red glass with one eye and through blue glass with the other, either the colors merge and we see a purple sky or we see the sky first of the one color and then of the other in irregular alternation. That this does not happen between impression and image shows that, whatever their connection, images as a whole are distinct from the presentation-continuum and cannot with strict propriety be spoken of as revived or reproduced impressions. This difference is manifest in another respect, *viz.* when we compare the effects of diffusion in the two cases. An increase in the intensity of a sensation of touch entails an increase in the extensity; an increase of muscular innervation entails irradiation to adjacent muscles; but when a particular idea becomes clearer and more distinct, there rises into consciousness an associated idea qualitatively related probably to impressions of quite another class, as when the smell of tar calls up memories of the sea-beach and fishingboats. Since images are thus distinct from impressions, and yet so far continuous with each other as to form a train in itself unbroken, we should be justified, if it were convenient, in speaking of images as changes in a new continuum; and later on we may see that this is convenient.

Impressions then unlike ideas have no associates to whose presence their own is accommodated and on whose intensity their own depends. Each bids independently for attention, so that often a state of distraction ensues, such as the train of ideas left to itself never occasions. The better to hear we listen; the better to see we look; to smell better we dilate the nostrils and sniff; and so with all the special senses: each sensory impression sets up nascent movements for its better reception. In like manner there is also a characteristic adjustment for images which can be distinguished from sensory adjustments almost as readily as these are distinguished from each other. We become most aware of this as, *mutatis mutandis*, we do of them, when we voluntarily concentrate attention upon particular ideas instead of remaining mere passive spectators, as it were, of the general procession. To this ideational adjustment may be referred most of the strain and head-splitting connected with recollecting, reflecting and all that people call headwork; and the absent look of one intently thinking or absorbed in reverie seems directly due to the absence of sensory adjustment that accompanies the concentration of attention upon ideas.

22. But, distinct as they are, impressions and images are still closely connected. In the first place, there are two or three well-marked intermediate stages, so that, though we cannot directly observe it, we seem justified in assuming of Impressions a steady transition from the one to the other. As impressions and the first of such intermediate stages, it is usual to reckon what are often, and so far as psychology goes inaccurately, styled after-images. They would be better described as after-sensations, inasmuch as they are due either (1) to the persistence of the original peripheral excitation after the stimulus is withdrawn, or (2) to the effects of the exhaustion or the repair that immediately follows this excitation. In the former case they are qualitatively identical with the original sensation and are called positive, in the latter they are complementary to it and are called negative (see Vision). These last, then, of which we have clear instances only in connection with sight, are obviously in no way. Moreover, as we shall see, the distinction between present and past or future psychologically presupposes the contrast of impression and image.

2 Organic sensations, though distinguishable from images by their definite though often anatomically inaccurate localization, furnish no clear evidence of such adaptations. But in another respect they are still more clearly marked off from images, viz, by the pleasure or pain they directly occasion.

predominates, while senility lapses back to the second; in the third, where similarities suggest themselves and the contrast of actual and possible is explicit, we have at length the groundwork of logical comparison. Nevertheless, since imagination plays a conspicuous part in child life before much personal reminiscence appears, it would seem probable that ideas do not first arise as definite memory-images or reminiscences. On the other hand, in the so-called homing instincts of the lower animals we have evidence of isolated memories of a simpler form than ours.

The subject is as difficult as it is interesting and important, and we can hardly hope at present for a final solution. One chief obstacle, as is so often the case in psychology, lies in the unsettled connotation of such leading terms as memory, association and idea. Even what is most fundamental of all, that plasticity which we have analysed into retentiveness, differentiation and integration, is sometimes described as if it already involved memory-ideas and their association. Ideas, that is to say, are identified with mere residua of former impressions, and yet at the same time are spoken of as copies of these: which is much like saying the evening twilight is a replica of the noonday glare as well as its parting gleam. Again, the continuous differentiation and reintegration of the presentational continuum which mark the progress of perceptual experience are resolved into an original multiplicity of presentational atoms which are associated by adhesion of the contiguous. Yet before the differentiation there was no plurality, and after the integration there is only a complex unity, comparable perhaps with another organic whole, but certainly not with a mosaic stuck together with cement. This mistaken identification by the Associationist psychology of later processes with simpler and earlier ones, by which they are only partially explained, has not only obscured the science with inappropriate concepts but has prevented the question on which we are entering that concerning the genesis and development of ideas from being ever effectually raised. The discussion of this question will incidentally yield the best refutation of those views.

Experience, we say, is the acquisition of practical acquaintance and efficiency as the result of repeated opportunity and effort. This means that strangeness on the cognitive side gives place to familiarity, and that on the active side clumsiness is superseded by skill. But though analytically distinct, the two sides are, as we have already insisted, actually inseparable: to the uninteresting we are indifferent, and what does not call for active response is ignored. If the original presentations whether sensory or motor, be A, B, C, we find then that they gradually acquire a new character, become, let us say, A~, B7, C7, 7 representing the eventual familiarity or facility, as the case may be. We find, again, a certain sameness in this character, however various the presentations to which it pertains, a sameness which points to the presence of subjective constituents, and to these we may assign the feelings that enter into accommodation and adjustment. This factor is important as evidence of a subjective co-operation which may enable us to dispense with the mutual adhesions and attractions among presentations, on which the Associationists rely. But it is obvious that there must be an objective factor as well; and it is this objective factor in the process giving rise to what now primarily concerns us. We have described that process as assimilation or immediate recognition: the older psychology described it as association of the completely similar, or as automatic association. That the two views

have something in common is shown by the juxtaposition of automatic and immediate, similarity and assimilation. To prepare the way for further discussion, let us first ascertain these points of agreement. When I look at the full moon, said Bain, I am instantly impressed with the state arising from all my former impressions of her disc added together. This we may symbolize in the usual fashion as $A + a_1 + a_2 + a_3 + \dots + a_n$. Now, it will be granted (1) that the present occurrence (full moon) has been preceded by a series of like occurrences, enumerable as 1, 2, 3, ... n; (2) that the present experience (A) is what it is in consequence of the preceding experiences of these occurrences; and (3) that it arises instantly as the joint result of such preceding experiences. But it is denied (1) that this present experience is the mere sum, or even the mere fusion, of the experiences preceding it; (2) that they were qualitatively identical; (3) that they persist severally unaltered, in such wise that experience drags at each remove a lengthening chain of them. In the case of dexterities, where y answers to facility, it is obvious that there is no such series of identicals (a_1, a_2, a_3, \dots) at all. From the first rude beginningsay the schoolboys pothooksup to the finished performance of the adept there is continuous approximation: awkward and bungling attempts, passing gradually into the bold strokes of mastery. Nor is the case essentially different in cognition where \sim answers to familiarity; if we attend, as it is plain we ought, not to the physical fact cognized, but to the individuals perception of it. This, too, is an acquisition, has entailed activity, and is marked by gradual approximation towards clearness and distinctness. The successive experiences of n identical occurrences does not then result in an accumulation of n identical residua. The ineptness of the atomistic psychology with its physical and chemical analysis is nowhere more apparent than here. Considering the intimate relation of life and mind, and the strong physiological bias shown by the Associationists from Hartley onwards, it is surely extraordinary how completely they have failed to appreciate the light-bearing significance of such concepts as function and development. Facility and faculty (or function) are much the same, both etymologically and a,ctually. As the perfected structure is not so many rudimentary structures added together, but something that supersedes them completely, must we not say the same of the perfected function? The less fit is not embodied in the fittest that finally survives. Development implies change of form in a continuous whole:

every growth into means an equal growth out of: thus one cannot find the caterpillar in the butterfly. Between organic development and mental development there is then more than an analogy.

But though assimilation cannot be analysed into a series of identical ideas (a_1, a_2, a_3, \dots), either added together or instantaneously fused, yet it does result in an a which may provisionally be called an idea. Such idea is, however, neither a memory-idea in the proper sense nor an idea within the meaning of the term implied in imagination or ideation. For it is devoid of the temporal signs i indicated by the subscript numerals in a_1, a_2, \dots , and it does not yet admit of reproduction as part of an ideational continuum, one, that is, divested of the characteristics belonging to the actual and sensibly present. It is, so to say, embryonic, something additional to the mere sensation assimilated, and yet something less than a free or independent idea. It is, as it has been. happily called,² a tied (gebundene) or implicit idea. We have clear evidence of the sense-bound stage of this immature idea in the so-called memory afterimage (cf. 22). There is, however, nothing in this of memory, save as the term is loosely used for mere retentiveness; and afterpercept would therefore be a less objectionable name for it. This after-percept is entirely sense-sustained and admits of no ideal recall, thoughin minds sufficiently advancedit may persist for a few moments, and so forIn the basis of such comparison with a second sensation, as we find in the experiments of Weber, Fechner and others.¹ At a still lower level, or in actual perception, we cannot assume even this amount of partial independence, though continuity clearly points to something beyond the bare sensation, which is a pure abstraction, as we may presently see.

It is saying too little to maintain, as some do, that this something is subconscious, on the ground that it is not discoverable by direct analysis. Yet it is saying too much, regardless of this defect, to describe a percept as a presentative-representative On this term cf. below, ~ 24, 28.

² Cf. Drobisch, *Empirische Psychologie* (1842), 31; Hoffding, *Ueber Wiederkennen, Association und psychische Activitat*, in *Vierteljahrsschr. f. wissenschaftl. Philosophie*, Bd. xiii. and xiv. To Hoffding we are also indebted for the term *Bekanntheitsqualitat*, which has suggested the -y character used above. Cf. also Ward, *Assimilation and*

Association, Mind (1894-1895).

Recent experiments, however, seem to prove that the after-percept is not the sole factor, and often is not a factor at all in such successive comparison (so-called); but that what is now termed the absolute impression may supplement it or even replace it altogether. As to what is meant by absolute impression, cf.

complex, if representation is to imply the presence of a free or independent idea. To call this something a tied or nascent idea on the ground of its possible later development into an independent representation seems, then, nearest the truth. The same meaning is sometimes expressed in a wholly different and designedly paradoxical way, by saying that all cognition (perception) is recognition. This statement has been met by elaborate expositions of the difference between knowing and knowing again, the irrelevance of which any lexicon would show; and, further, by the demand: How on such a view is a first cognition possible, or how is an indefinite regress of assimilation to be avoided? We may confidently reply that it cannot be avoided: an absolute beginning of experience, whether phylogenetically or ontogenetically, is beyond us. Assimilation means further assimilation; in this sense all cognition is further cognition, and a bare sensation is, as said, an abstraction representing a limit to which we can never regress.

We find evidence, again, of ideas in the making in what Lewes called preperception. Of this instances in plenty are furnished by everyday illusions, as when a scarecrow is hailed by the traveller who mistakes it for a husbandman, or when what is taken for an orange proves to be but an imitation in wax. In reality all complex percepts involve preperception; and, so far, it must be allowed that such percepts are directly analysable into presentative-representative complexes. Nevertheless, the representative element is not yet, and may never become, an idea proper. The sight of ice yields a forefeel of its coldness, the smell of baked meats a foretaste of their savour. Such prepercepts differ from free ideas just as after-percepts do: they are still sense-bound and sense-sustained. Nor can this complication be with any propriety identified either with the association pertaining to memory or with that specially pertaining to ideation; though, no doubt, the two processes complication and association are genetically continuous, as are their respective constituents, nascent and free ideas. The whole course of perceptual integration being determined and sustained by subjective interest, involves from the outset, as we have seen, concurrent conative impulses; and thus the same assimilation that results in familiarity and preperception on the subjective side results in facility and purpose on the conative. Knowing immediately what to do is here the best evidence of knowing what there is to do with; the moth that flies into the candle has assuredly no preperception of it, and does not act with purpose. Bearing this in mind, we may now see one way, and probably the earliest, in which tied ideas become free.

The contrast between the actual and the possible constitutes, as we have seen, the main difference between experience at the perceptual and experience at the ideational stage. A subject confined to the former level knows not yet this difference. Such knowledge is attained, not through any quasi-mechanical interaction of presentations, but usually through bitter experience. The chapter of accidents is the Bible of fools, it has been said; but we are all novices at first, and get wisdom chiefly by the method of trial and failure. Things are not always different in what to us are their essential properties, but they so differ from time to time. Resemblances are frequent enough to give us familiarity and confidence; yet uniformity is flecked by diversity, and thwarted intentions disclose possibilities for which we were not prepared. What was taken for sugar turns out to be salt; what was seized as booty proves to be bait. We catch many Tatars, and so learn wariness in a rough school. In such wise preperceptions displaced by the actual fact yield the what severed from the that, the ideal freed at length from the exclusive hold of the real. In a new situation after such adventures the attitude assumed if, for brevity, we describe it in terms of our own still more advanced experience is of this sort:

It may be a weasel, if so, I back; it may be a rabbit, if it is, I spring. Instead of unquestioned preperception that makes association to the later process, in which alone the component presentations have that amount of distinctness and individuality which the term properly connotes.

the mouth water, we have the alternative possibilities present. as free ideas, and action is in suspense, the alternative courses, that is to say, again present only in idea. It is easy to see how in such situations one free idea, a what

sundered from its that, will tend to loosen the sensory ties of alternative, still implicit ideas. On the cognitive side, from immediate assimilation an advance is made towards mediate cognition, towards comparison; on the active side there is advance from impulsive action towards deliberate action.¹

We conclude, then, that implicit ideas the products of assimilation, and integrated as such in complex percepts and the motor co-ordinations to which they lead are more likely to emerge as free ideas the more this perceptual complexity increases. Perception in the lower animals, who give no signs of either memory or ideation, has apparently no such complexity. A fish, for example, can feel, smell, taste, see, and even hear, but we cannot assume solely on that account that it has any percepts to which its five senses contribute, as they do to our percept, say, of an orange or a peppermint. Taking voluntary movements as the index of psychical life, it would seem that the fish's movements are instigated and guided by its senses, not collectively but separately. Thus a dog-fish, according to Steiner, seeks its food exclusively by scent; so that when its olfactory bulbs are severed, or the fore-brain, in which they end, is destroyed, it ceases to feed spontaneously. The carp, on the other hand, appears to search for its food wholly under the guidance of sight, and continues to do so just as well when the fore-brain is removed, the mid-brain, whence the optic nerves spring, seeming to be the chief seat of what intelligence it has.¹ Again, Bateson observes: There can be no doubt that soles also perceive objects approaching them, for they bury themselves if a stroke at them is made with a landing-net; yet they have no recognition of a worm hanging by a thread immediately over their heads, and will not take it even if it touch them, but continue to feel for it aimlessly on the bottom of the tank, being aware of its presence by the sense of smell.⁴ To this inability to combine simple percepts into one complex percept of a single object or situation we may reasonably attribute the fish's lack of true ideas, and consequent lack of sagacity. The sagacity even of the higher animals does not amount to general intelligence, such as enables a child to put two and two together, as we say, whatever two and two may stand for. So far as life consists of a series of definite situations and definite acts, so far the things done or dealt with together, the contents of the several foci or concentrations of attention, form so many integrated and comparatively isolated wholes. Round the more complicated of these, and closely connected with them, free ideas arise as sporadic groups, making possible those lucid intervals, those fitful gleams of intelligence in the very heat of action, which occasionally interrupt the prevailing irrationality of the brutes. And as we cannot credit even the higher animals with general trains of ideas, just as little can we credit them with a continuous memory: indeed, it is questionable how far memory of the past, as past, belongs to them at all. For they live entirely in an up-stream, expectant attitude, and it is in this aspect that free ideas arise when they arise at all. We cannot imagine a dog regretting, like one of Punch's heroes, that he did not have another slice of that mutton.

The free idea (a) then at its first emergence has neither an assignable position in a continuous memory-record, as a₁ or a₂, nor has it a definite relation as a generic idea to possible specializations such as a or a. These further developments bring us to the general consideration of mental association.

¹ Some light is perhaps here thrown on the reciprocal relation of association by contrast and association by similarity as severally the differentiation of partial similars and the integration of partial dissimilars.

³J. Steiner, *Die Functionen des Centralnervensystems u.s.w.*, 2te Abth. *Die Fische* (1888), pp. 50, 126, 19 seq., 101.

W. Bateson, *The Sense-Organs and Perceptions of Fishes*, *Journ. Marine Biol. Assoc.* (1890), p. 239.

ⁱ Cf. Stout, *Manual of Psychology* (1899), vol. ii. cli. i.; also F. H. Bradley, *Memory and Inference*, *Mind* (1899), pp. 145 sqq.; and especially Thorndike, *Animal Intelligence*, cited above.

Mental Association and the Memory-Continuum.

24. Great confusion has been occasioned, as we have seen incidentally, by the lax use of the term association, and this confusion has been increased by a further laxity in Association, ... -

by Similar- the use of the term association by similarity.

ity not In so far as the similarity amounts to identity, as in Funda- assimilation, we have a process which is more mental, fundamental than association by contiguity, but then it is not a process of association. And when the reviving

presentation is only partially similar to the presentation revived, the nature of the association does not appear to differ from that operative when one contiguous presentation revives another. In the one case we have, say, a b x recalling a b y, and in the other a b c recalling d e f. Now anybody who will reflect must surely see that the similarity between a b x and a b y, as distinct from the identity of their partial constituent a b, cannot be the means of recall; for this similarity is nothing but the state of mind to be studied presently which results when a h x and a b y, having been recalled are in consciousness together and then compared. But if a b, having concurred with y before and being now present in a b x, again revives y, the association, so far as that goes, is manifestly one of contiguity, albeit as soon as the revival is complete, the state of mind immediately incident may be what Bain loved to style the flash of similarity. So far as the mere revival itself goes, there is no more similarity in this case than there is when a b c revives d e f. For the very a b c that now operates as the reviving presentation was obviously never in time contiguous with the d e f that is revived; if all traces of previous experiences of a b c were obliterated there would be no revival. In other words, the a b c now present must be automatically associated, or, as we prefer to say, must be assimilated to those residua of a b c which were contiguous with d e f, before the representation of this can occur. And this, and nothing more than this, we have seen, is all the similarity that could be at work when a b x brought up a b y.

On the whole, then, we may assume that the only principle of association we have to examine is the so-called association by Co ~ contiguity, which, as ordinarily formulated, runs:

In x c ~ I e. Any presentations whatever, which are in consciousness together or in close succession, cohere in such a way that when one recurs it tends to revive the rest, such tendency increasing with the frequency of the conjunction. It has been often contended that any investigation into the nature of association must be fruitless. But, if association is thus a first principle, it ought at least to admit of such a statement as shall remove the necessity for inquiry. So long, however, as we are asked to conceive presentations originally distinct and isolated becoming eventually linked together, we shall naturally feel the need of some explanation of the process, for neither the isolation nor the links are clear not the isolation, for we can only conceive two presentations separated by other presentations intervening; nor the links, unless these are also presentations, and then the difficulty recurs. But, if for contiguity we substitute continuity and regard the associated presentations as parts of a new continuum, the only important inquiry is how this new whole was first of all integrated.

To ascertain this point we must examine each of the two leading divisions of contiguous association that of simultaneous Formation presentations and that of presentations occurring of Memory- in close succession. The last, being the clearer, may Continuum, be taken first. In a series of associated presentations A B C D E, such as the movements made in writing, the words of a poem learned by heart, or the simple letters of the alphabet themselves, we find that each member recalls its successor but not its predecessor. Familiar as this fact is, it is not perhaps easy to explain it satisfactorily. Since C is associated both with B and D, and apparently as intimately with the one as with the other, why does it revive the later only and not the earlier? B recalls C; why does not C recall B? We have seen that any i So Hume, *Treatise of Human Nature*, pt. i. 4 (Green and Grose ed., p. 321); also Lotze, *Melaphysik*, 1st ed., p. 526.

reproduction at all of B, C or D depends primarily upon its having been the object of special attention, so as to occupy at least momentarily the focus of consciousness. Now we can, in the first instance only surmise that the order in which they are reproduced is determined by the order in which they were thus attended to when first presented. The next question is whether the association of objects simultaneously presented can be resolved into an association of objects successively attended to. Whenever we try to recall a scene we saw but for a moment there are always a few traits that recur, the rest being blurred and vague, instead of the whole being revived in equal distinctness or indistinctness. On seeing the same scene a second time our attention is apt to be caught by something unnoticed before, as this has the advantage of novelty; and so on, till we have lived ourselves into the whole, which may then admit of simultaneous recall. Bain, who is rightly held to have given the best exposition of the laws of association, admits something very like this in saying that coexistence is an artificial growth formed from a certain peculiar class of mental successions. But, while it is easy to think of instances in which the associated objects were attended to

successively, and we are all perfectly aware that the surest not to say the only way to fix the association of a number of objects is by thus concentrating attention on each in turn, it seems hardly possible to mention a case in which attention to the associated objects could not have been successive. In fact, an aggregate of objects on which attention could be focused at once would be already associated.

The exclusively successional character of contiguous association has recently been denied, and its exclusively simultaneous character maintained instead. It is at once obvious that this opposition of succession and simultaneity cannot be pressed so as to exclude duration altogether and reduce the whole process to an instantaneous event. Nor is there any ground for saying that there is a fixed and even distribution of attention to whatever is simultaneously presented:

facts all point the other way. Still, though we cannot exclude the notion of process from consciousness, we may say that presentations attended to together become pro tanto a new whole, are synthesized or complicated. Such primary synthesis leads not to an association of ideas, but rather to the formation of one percept, which may become eventually a free idea. The disconcerted preperception which sets this free may likewise liberate a similar or contrastive idea, but it will not resolve either complex into the several ideas of its sensory or motor constituents, with which only the psychologist is familiar. The actual recurrence of some of these constituents may again reinstate the rest, not, however, as memories or as thoughts, but only as tied ideas in a renewed perception.

Again, it has become usual to distinguish the association of contiguous experiences and the so-called association of similars or opposites as respectively external and internal forms of association. The new terminology is illuminating: the substitution of forms for laws marks the abandonment of the old notion that association was by adhesion of the contiguous and attraction of the similar. We are thus left to find the cause of association in interested attention; and that, we may safely say, is an adequate, and apparently the sole adequate, cause for the two commonly recognized forms of external association, the so-called simultaneous and the successive. But these two are certainly not co-ordinate; and if our analysis be sound, the former for which we would retain the Herbartian term complication yields us not members of an association but a member for association. So far, then, we should have but one form of association, that of the successive contents of focalized attention: and but one result, the representation or memory-continuum, in contrast to the primary- or presentation-continuum, whence its constituents arise. Turning now to the distinction of external and internal, it at once strikes the unprejudiced mind that internal association is something of an anomaly, since the very notion of association implies externality. Also, on closer inspection what we find is not an association of similars or opposites as such, but something quite distinct a similarity or contrast of associates; of ideas, that is to say, which are contiguous members of the memory (or experience) continuum, or of ideas which have become contiguous through its reduplication.

The only case, then, that now remains to be considered is that to take it in its simplest form of two primary presentations A and X, parts of different special continua or distinct i.e. non-adjacent parts of the same, and occupying the focus of consciousness in immediate succession. This constitutes the Experience-continuum which perhaps be a better name, since it is only a preliminary to a true memory record, as we shall presently see.

their integration; for the result of this occupation may be regarded as a new continuum in which A and X become adjacent parts. For it is characteristic of a continuum that an increase in the intensity of any part leads to the intenser presentation of adjacent parts; and in this sense A and X, which were not originally continuous, have come to be so. We have here, then, some justification for the term secondary- or memory-continuum when applied to this continuous series of representations to distinguish it from the primary or presentation-continuum from which its constituents are derived. The most important peculiarity of this continuum, therefore, is that it is a series of representations integrated by means of the movements of attention out of the differentiations of the primary or presentation-continuum, or rather out of so much of these differentiations as pertain to what we know as the primary memory-image. These movements of attention, if the phrase may be allowed, come in the end to depend mainly upon interest, but at first appear to be determined entirely by mere intensity. To them it is proposed to look for that continuity which images lose in so far as they part with the local signs they had as percepts and cease to be either localized or projected.

Inasmuch as it is assumed that these movements form the connection between one representation and another in the memory-train, they may be called temporal signs. ¹ The evidence for their existence can be more conveniently adduced presently; it must suffice to remark here that it consists almost wholly of facts connected with voluntary attention and the voluntary control of the flow of ideas, so that temporal signs, unlike local signs, are fundamentally motor and not sensory. And, unlike impressions, representations can have each but a single sign,³ the continuum of which, in contrast to that of local signs, is not rounded and complete, but continuously advancing. But in saying this we are assuming for a moment that the memory-continuum forms a perfectly single and unbroken train. If it ever actually were such, then, in the absence of any repetition of old impressions and apart from voluntary interference with the train, consciousness, till it ceased entirely, would consist of a fixed and mechanical round of images. Some approximation to such a state is often found in uncultured persons who lead uneventful lives, and still more in idiots, who can scarcely think at all.

25. In actual fact, however, the memory-train is liable to change in two respects, which considerably modify its structure, viz. (1) through the evanescence of some parts, and (2) through the partial recurrence of like impressions, which produces reduplications of varying amount and extent in other parts. As regards the first, we may infer that the waning or sinking towards the threshold of consciousness which we can observe formation in the primary mental image continues in subliminal ideational consciousness after the threshold is past. For the continuum, longer the time that elapses before their revival the fainter, the less distinct, and the less complete are the images when revived, and the more slowly they rise. All the elements of a complex are not equally revivable, as we have seen already:

tastes, smells and organic sensations, though powerful as impressions to revive other images, have little capacity for ideal a difficulty that the analogy of adhesiveness or links leaves unaccountable. To ignore the part played by attention in association, to represent the memory-continuum as due solely to the concurrence of presentations, is perhaps the chief defect.~of the associatioist psychology, both English and German. Spencers endeavour to show that psychical life is distinguished from physical life by consisting of successive changes only instead of successive and simultaneous changes (Principles of Psychology, pt. iv. ch. ii., in particular pp. 403, 406) is really nothing but so much testimony to the work of attention in forming the memory-continuum, especially when, as there is good reason to do, we reject his assumption that this growing seriality is physically determined.

¹ A term borrowed from Lotze (*Metaphysik*, 1st ed, p. 295), but the present writer is alone responsible for the sense here given to it and the hypothesis in which it is used.

Apart, that is to say, of course, from the reduplications of the memory-train spoken of below.

reproduction themselves, while muscular movements, though perhaps of all presentations the most readily revived, do not so readily revive other presentations. Idiosyncrasies are, however, frequent; thus we find one person. has an exceptional memory for sounds, another for colors, another for forms. Still it is in general true that the most intense, the most impressive, and the most interesting presentations persist the longest. But the evanescence, which is in all cases comparatively rapid at first, deepens sooner or later into real or apparent oblivion. In this manner it comes about that parts of the memory-continuum lose all distinctness of feature and, being without recognizable content, shrivel up to a dim and meagre representation of life that has lapsed to a representation that just suffices, for example, to show us that our earliest recollections are not of our first experiences, or to save them from being not only isolated but discontinuous. Such discontinuity can, of course, never be absolute; we must have something represented even to mark the gap. Oblivion and the absence of all representation are thus the same, and the absence of all representation cannot psychologically constitute a break. The terms evolution and involution have in this respect been happily applied to the rising and falling of representations. When we recall a particular period of our past life, or what has long ceased to be a familiar scene, events and features gradually unfold and, as it were, spread out as we keep on attending. A precisely opposite process may then be supposed to take place when they are left in undisturbed forgetfulness; this process is called obliviscence.

More important changes are produced by the repetition of parts of the memory-train. The effect of this is not merely to prevent the evanescence of the particular image or series of images, but by partial and more or less

frequent reduplications of the memory-train or thread upon itself to convert it into a partially new continuum, which we might perhaps call the ideational continuum or tissue.⁴ The reduplicated portions of the train are strengthened, while at the points of divergence it becomes comparatively weakened, and this apart from the effects of obliviscence. One who had seen the king but once would scarcely be likely to think of him without finding the attendant circumstances recur as well; this could not happen after seeing him in a hundred different scenes. The central representation of the whole complex would have become more distinct, whereas the several diverging lines would tend to dissipate attention and, further, by involving opposing representations, to neutralize each other, so that probably no definite background would be reinstated. Even this central representation would be more or less generalized. It has been often remarked that ones most familiar friends are apt to be mentally pictured less concretely and vividly than persons seen. more seldom and then in similar attitudes and moods; in the former case a generic image has grown out of such more specific representations as the latter affords. Still further removed from memory-images are the images that result from such familiar percepts as those of horses, houses, trees, &c.

Thus as the joint effect of obliviscence and reduplication we are provided with trains of ideas distinct from the memorythread and thereby with the material, already more or less organized, for intellectual and volitional manipulation. We do not experience the flow of ideas save very momentarily and occasionally altogether undisturbed; even in dreams and reverie, it is continually interrupted and diverted. Nevertheless it is not difficult to ascertain that, so far as it is left to itself, it takes a very different course from that which we should have to retrace if bent on reminiscence and able to recollect perfectly. The readiness and steadiness of this flow are shown by the extremely small effort necessary in order to follow it. Nevertheless from its very nature it is liable, though not to positive breaches ⁴This contrast of thread and tissue is suggested, of course, by Herbart's terms *Reihe* and *Gewebe*. It is justified by the fact that memory proper follows the single line of temporal continuity, while ideation furnishes the basis for manifold logical connections.

of continuity from its own working, yet to occasional blocks or impediments to the smooth succession of images at points where reduplications diverge, and either permanently or at the particular time neutralize each other. The flow of ideas is, however, exposed to positive interruptions from two distinct sides by the intrusion of new presentations and of voluntary interference. The only result of such conflicts of interruptions which we need here consider is the conflict of presentations that may ensue. Herbart and his followers have gone so far as to elaborate a complete system of psychical statics and dynamics, based on the conception of presentations as, forces and on certain more or less improbable assumptions as to the modes in which such forces interact. Since our power of attention is limited, it continually happens that attention is drawn off by new presentations at the expense of old ones. But, even if we regard this non-voluntary redistribution of attention as implying a struggle between presentations, still such conflict to secure a place in consciousness is very different from a conflict between presentations that are already there. Either may be experienced to any degree possible without the other appearing at all; thus, absorbed in watching a starry sky, one might be unaware of the chilliness of the air, though recognizing at once, as soon as the cold is felt, that, so far from being incompatible, the clearness and the coldness are causally connected. This difference between a conflict of presentations to enter the field of consciousness if we allow for a moment the propriety of the expression and that opposition or incompatibility between presentations which is only possible when they are in consciousness has been strangely confused by the Herbartians. In the former the intensity of the presentation is primarily alone of account; in the latter, on the contrary, quality and content are mainly concerned. Only the last requires any notice here, since such opposition arises when the ideational continuum is interrupted in the ways just mentioned, and apparently arises in no other way. Certainly there is no such opposition between primary presentations: there we have the law of inco-presentability preventing the presentation of opposites with the same local sign; and their presentation with different local signs involves, on this level at all events, no conflict. But what has never been presented could hardly be represented, if the ideational process were undisturbed: even in our dreams white negroes or round squares, for instance, never appear. In fact, absurd and bizarre as dream-imagery is, it never at any moment entails overt contradictions, though contradiction may be implicit.

But between ideas and percepts actual incompatibility is frequent. In the perplexity of Isaac, e.g. The voice is Jacobs voice, but the hands are the hands of Esau we have such a case in a familiar form. There is here not merely mental arrest but actual conflict:

the voice perceived identifies Jacob, at the same time the hands identify Esau The images of Esau and Jacob by themselves are different, hut do not conflict; neither is there any strain, quite the contrary, in recognizing a person partly like Jacob and partly like Esau. For there is no direct incompatibility between smooth and rough, so long as one pertains only to voice and the other only to hands, but the same hands and voice cannot be both smooth and rough. Similar incompatibilities may arise without the intrusion of percepts, as when, in trying to guess a riddle or to solve a problem, or generally to eliminate intellectual differences, we have images which in themselves are only logically opposite, psychologically opposed, or in conflict, because each strives to enter the same complex. In all such conflicts alike we find, in fact, a relation of presentations the exact converse of that which constitutes similarity. In the latter we have two complete presentations, a b x and a b y, as similar, each including the common part a b; in the former we have two partial presentations, x and y, as contraries, each excluding the other from the incomplete a b. And this a b, it is to be noted, is not more essential to the similarity than to the conflict. But in the one case it is a generic image (and can logically be predicated of two subjects); in the other it is a partially determined individual (and cannot be subject to opposing predicates). Except as thus supplementing a b, x and y do not conflict; black and white are not incompatible save as attributes of the same thing. The possibility of most of these conflicts of all, indeed, that have any logical interest lies in that reduplication of the memory-continuum which gives rise to these new complexes, generic images or general ideas.

Reminiscence and Expectation: Temporal Perception.

26. Having thus attempted to ascertain the formation of the ideational continuum out of the memory-train, the question arises: How now are we to distinguish between imagining and remembering, and again, between imagining and expecting?

i It is a mark of the looseness of much of our psychological terminology that facts of this kind are commonly described as cases of association. Dr Bain calls them obstructive association, which is about on a par with progress backwards; Mr Sullys divergent association is better. But it is plain that what we really have is an arrest or inhibition consequent on association, and nothing that is either itself association or that leads to association.

It is plainly absurd to make the difference depend on the presence of belief in memory and expectation and on its absence in mere imagination; for the belief itself depends on this difference instead of constituting it. One real and obvious distinction, however, which Hume pointed out as regards memory, is the fixed order and position of the ideas of what is remembered or expected as contrasted with the liberty of the imagination Imagination to transpose and change its ideas. This order and position in the case of memory are, of course, normally those of the original impressions, but it seems rather nave of Hume to tell us that memory is tied down to these without any power of variation, while imagination has liberty to transpose as it pleases, as if the originals sat to memory for their portraits, while to imagination they were but studies. Such correspondence being out of the question as Hume takes care to state as soon as it suits him all we have, so far, is this fixity and definiteness as contrasted with the kaleidoscopic instability of ideation. In this respect what is remembered or expected resembles what is perceived: the grouping not only does not change capriciously and spontaneously, but resists any mental efforts to change it. But, provided these characteristics are there, we should be apt to believe that we are remembering, just as, *mutatis mutandis*, with like characteristics we might believe that we were perceiving; hallucination is possible in either case.

This fixity of order and position is, however, not sufficient to constitute a typical reminiscence where the term is exactly used. But remembering is often regarded as equivalent to knowing and recognizing, as when on revisiting some once familiar place one remarks, How well I remember it!~~ What is meant is that the place is recognized, and that its recognition awakens memories. Memory includes recognition; recognition as such does not include memory. In human consciousness, as we directly observe it, there is, perhaps, no pure recognition:

here the new presentation is not only assimilated to the old, but the former framing of circumstance is reinstated, and so perforce distinguished from the present. It may be there is no warrant for supposing that such redintegration of a preceding field is ever absolutely nil, still we are justified in regarding it as extremely vague and meagre, both where mental evolution is but slightly advanced and where frequent repetition in varying and irrelevant circumstances has produced a blurred and neutral zone. The last is the case with a great part of our knowledge; the writer happens to know that *bos* is the Latin for ox and *bufo* the Latin for toad, and may be said to remember both items of knowledge, if remember is only to be synonymous with retain. But if he came across *bos* in reading he would think of an ox and nothing more; *bufo* would immediately call up not only toad but Virgil's *Georgics*, the only place in which he has seen the word, and which he never read but once. In the former there is so far nothing but recognition (which, however, of course rests upon retentiveness); in the latter there is also remembrance of the time and circumstances in which that piece of knowledge was acquired. Of course in so far as we are aware that we recognize we also think that remembrance is at any rate possible, since what we know we must previously have learned—recognition excluding novelty. But the point here urged is that there is an actual reminiscence only when the recognition is accompanied by a reinstatement of portions of the memory-train continuous with the previous presentation of what is now recognized. Summarily stated, we may say that between knowing and remembering on the one hand and imagining on the other the difference primarily turns on the fixity and completeness of the grouping in the former; in the latter there is a shifting play of images more or less generic, reminding one of dissolving views. Hence the first two approximate in character to perception, and are rightly called recognitions. Between them, again, the difference turns primarily on the presence or absence of temporal signs. In what is remembered these are still intact enough to ensure a localization in the past of what is recognized; in what is known merely such localization is prevented, either because of the obliviscence of temporal connections or because the reduplications of the memory-train that have consolidated the central group have entailed their suppression. There is further the difference first mentioned, which is often only a difference of degree, viz, that reminiscences have more circumstantiality, so to say, than mere recognitions have: more of the collateral constituents of the original concrete field of consciousness are reinstated. But of the two characteristics of memory proper (a) concreteness or circumstantiality, and (b) localization in the past the latter is the more essential. It sometimes happens that we have the one with little or nothing of the other. For example, we may have but a faint and meagre representation of a scene, yet if it falls into and retains a fixed place in the memory train we have no doubt that some such experience was once actually ours. On the other hand, as in certain so-called illusions of memory, we may suddenly find ourselves reminded by what is happening at the moment of a preceding experience exactly like it—some even feel that they know from what is thus recalled what will happen next; and yet, because we are wholly unable to assign such representation a place in the past, instead of a belief that it happened, there arises a most distressing sense of bewilderment, as if one were haunted and had lost one's personal bearings. It has been held by some psychologists that memory proper includes the representation of one's past self as agent or patient in the event or situation recalled. And this is true as regards all but the earliest human experience, at any rate; still, whereas it is easy to see that memory is essential to any development of self-consciousness, the converse is not at all clear, and would involve us in a needless circle.

27. Intimately connected with memory is expectation. We may as the result of reasoning conclude that a certain event will happen; we may also, in like manner, conclude that a certain other event has happened. But as we should not call the latter memory, so it is desirable to distinguish such indirect anticipation as the former from that expectation which is directly due to the interaction of ideas. Any man knows that he will die, and may make a variety of arrangements in anticipation of death, but he cannot with propriety be said to be expecting it unless he has actually present to his mind a series of ideas ending in that of death, such series being due to previous associations, and unless, further, this series owes its representation at this moment to the actual recurrence of some experience to which that series succeeded before. And as familiarity with an object or event in very various settings may be a bar to recollection, so it may be to expectation: the average Englishman, e.g. is continually surprised without his umbrella, though only too familiar with rain, since in our climate one not specially attentive to the weather obtains

no clear representation of its successive phases. But after a series of events A B C D E

has been once experienced we instinctively expect the recurrence of B C. .. on the recurrence of A, i.e. provided the memory-train continues so far intact. Such expectation, at first perhaps slighta mere tendency easily overcome becomes strengthened by every repetition of the series in the old order, till eventually, if often fulfilled and never falsified, it becomes certain and, as we commonly say, irresistible. To have a clear case of expectation, then, it is not necessary that we should distinctly remember any previous experience like it, but only that we should have actually present some earlier member of a series which has been firmly associated by such previous experiences, the remaining members, or at least the next, if they continue serial, being revived through that which is once again realized. This expectation may be instantly checked by reflection, just as it may, of course, be disappointed in fact; but these are matters which do not concern the inquiry as to the nature of expectation while expectation lasts.

We shall continue this inquiry to most advantage by widening it into an examination of the distinction of present, past and future. To a being whose presentations never passed through 2 As, e.g. James Mill (*Analysis of the Human Mind*, ch. x.), who treats this difficult subject with great acuteness and thoroughness.

the transitions which ours undergo first divested of the strength and vividness of impressions, again reinvested with them and brought back from the faint world of ideas Present, the sharp contrasts of now and then, and Past, and all the manifold emotions they occasion, would be Eut ore. quite unknown. Even we, so far as we confine our activity and attention to ideas are almost without them. Time-order, succession, antecedence, and consequence, of course, there might be still, but in that sense of events as past and gone for ever, which is one of the melancholy factors in our life; and in the obligation to wait and work in hope or dread to what is still to come there is much more than time-order. It is to presentations in their primary stage, to impressions, that we owe what real difference we find between now and then, whether prospective or retrospective, as it is to them also that we directly owe our sense of the real, of what is and exists as opposed to the non-existent that is not. But the present alone and life in a succession of presents, or, in other words, continuous occupation with impressions, give us no knowledge of the present as present. This we first obtain when our present consciousness consists partly of memories or partly of expectations as well. An event expected differs from a like event remembered chiefly in two ways in its relation to present impressions and images and in the active attitude to which it leads. The diverse feelings that accompany our intuitions of time and contribute so largely to their coloring are mainly consequences of these differences. Let us take a series of simple and familiar events A B C D E, representing ideas by small letters, and perceptions by capitals whenever it is necessary to distinguish them. Such series may be present in consciousness in such wise that a b c d are imaged while E is perceived anew, i.e. the whole symbolized as proposed would be a b c d E; such would be, e.g. the state of a dog that had just finished his daily meal. Again, there may be a fresh impression of A which revives b c d e; we should have then (1) A b c d the state of our dog when he next day gets sight of the dish in which his food is brought to him. A little later we may have (2) a b C d e. Here a b are either after-sensations or primary memory-images, or have at any rate the increased intensity due to recent impression; but this increased intensity will be rapidly on the wane even while C lasts, and a b will pale still further when C gives place to D, and we have (3) a b c D e. But, returning to (2), we should find d e to be increasing in intensity and definiteness, as compared with their state in (1), now that C, instead of A, is the present impression. For, when A occupied this position, not only was e raised less prominently above the threshold of consciousness by reason of its greater distance from A in the memory-continuum, but, owing to the reduplications of this continuum, more lines of possible revival were opened up, to be successively negated as B succeeded to A and C to B; even dogs know that there is many a slip twixt the cup and the lip. But, where A B C D B is a series of percepts such as we have here supposed and a series of simpler states would hardly afford much ground for the distinctions of past, present and future there would be a varying amount of active adjustment of senseorgans and other movements supplementary to full sensation. In (2), the point at which we have a b C d e, for instance, such adjustments and movements as were appropriate to b would cease as B lapsed and be replaced by those appropriate to C. Again, as C succeeded to B, and d in consequence increased in intensity and definiteness, the movements adapted to the reception of D would become nascent, and so on. Thus, psychologically regarded, the distinction of past and future and what we might call the oneness of direction of time

depend, as just described, (1) upon the continuous sinking of the primary memory-images on the one side, and the continuous rising of the ordinary images on the other side, of that member of a series of percepts then repeating which is actual at the moment; and (2) on the convenient adjustments of attention, to which such words as expect, await, anticipate, all testify by their etymology. These conditions in turn will be found to depend upon all that is implied in the formation of the memory-train and upon that recurrence of like series of impressions which we attribute to the uniformity of nature. If we never had the same series of impressions twice, knowledge of time would be impossible, as indeed would knowledge of any sort.

28. Time is often figuratively represented as a line, and we may perhaps utilize this figure to make clear the relation of our perception of time to what we call time itself. The Succession.

present, though conceived as a point or instant of time, is still such that we actually can and do in that moment attend to a plurality of presentations to which we might otherwise have attended to severally in successive moments. Granting this implication of simultaneity and succession, we may, if we represent succession as a line, represent simultaneity as a second line at right angles to the first; pure time or time-length without time-breadth, we may say is a mere abstraction. Now it is with the former line that we have to do in treating of time as it is (or as we conceive it), and with the latter in treating of our perception of time, where, just as in a perspective representation of distance, we are confined to lines in a plane at right angles to the actual line of depth. In a succession of events A B C D E... the presence of B means the absence of A and of C, but the presentation of this succession involves the simultaneous presence, in some mode or other, of two or more of the presentations A B C D. In our temporal perception, then, all that corresponds to the differences of past, present and future is presented simultaneously. To this fact the name of specious present or psychical present has been given. What we have is not a moving point or moment of objective time, but rather a moving line, the contents of which, continuously changing, simultaneously represent a portion of the line of objective succession, viz, the immediate past as still present in primary memory-images, and the immediate future as anticipated in prepercepts and nascent acts.^f This truism or paradox that all we know of succession is but an interpretation of what is really simultaneous or coexistent, we may then concisely express by saying that we are aware of time only through time-perspective, and experience shows that it is a long step from a succession of presentations to such presentation of succession. The first condition of such presentation is that we should have represented together presentations that were in the first instance attended to successively, and this we have both in the persistence of primary memory-images and in the simultaneous reproduction of longer or shorter portions of the memory-train. In a series thus secured there may be time-marks, though no time, and by these marks the series will be distinguished from other simultaneous series. To ask which is first among a number of simultaneous presentations is unmeaning; one might be logically prior to another, but in time they are together and priority, is excluded. Nevertheless after each distinct representation a, b, c, d there probably follows, as we have supposed, some trace of that movement of attention of which we are aware in passing from one presentation to another, In our present reminiscences we have, it must be allowed, little direct proof of this interposition, though there is strong indirect evidence of it in the tendency of the flow to follow the order in which the presentations were first attended to. With the movements themselves we are familiar enough, though the residua of such movements are not ordinarily conspicuous. These residua, then, are our temporal signs, and, together with the representations connected by them, constitute the memory-continuum. But temporal signs alone will not furnish all the pictorial exactness of the time-perspective. They give us only a fixed series; but the working of obliviscence, by insuring a progressive variation in intensity and distinctness as we pass from one member of the series to the other, yields the effect which we call time-distance. By themselves such variations would leave us liable to confound more vivid representations in the distance with fainter ones nearer the present, but from this mistake the temporal signs save us; and, as a matter of fact, where the memory-train is imperfect such mistakes continually occur. On the other hand, where these variations are slight and imperceptible, though the memory i Cf. W. James, *Principles of Psychology*, i. 629 sqq. LW. Stern, *Psychische Prasenzzeit*, Z. f. Psych., (1897), xiii. 325 sqq.

continuum preserves the order of events intact, we have still no such distinct appreciation of comparative distance in time as we have nearer the present where these perspective effects are considerable.

29. When in retrospect we note that a particular presentation X has had a place in the field of consciousness, while certain other presentations, A B C D. . ., have succeeded 12 ~ each other, then we may be said in observing this urn Of~ relation of the two to perceive the duration of X. And it is in this way that we do subjectively estimate longer periods of time. But first, it is evident that we cannot apply this method to indefinitely short periods without passing beyond the region of distinct presentation; and, since the knowledge of duration implies a relation between distinguishable presentations A B C D and X, the case is one in which the hypothesis of subconsciousness can hardly help any but those who confound the fact of time with the knowledge of it. Secondly, if we are to compare different durations at all, it is not enough that one of them should last out a series A B C D, and another a series L M N O; we also want some sort of common measure of those series. Locke was awake to this point, though he expresses himself vaguely (Essay, ii. 14, ~ 912). He speaks of our ideas succeeding each other at certain distances not much unlike the images in the inside of a lantern turned round by the heat of a candle, and guesses that this appearance of theirs in train varies not very much in a waking man. Now what is this distance that separates A from B, B from C, and so on, and what means have we of knowing that it is tolerably constant in waking life? It is probably that the residuum of which we have called a temporal sign; or, in other words, it is the movement of attention from A to B. But we must endeavour here to get a more exact notion of this movement. Everybody knows what it is to be distracted by a rapid succession of varied impressions, and equally what it is to be wearied by the slow and monotonous recurrence of the same impressions. Now these feelings of distraction and tedium owe their characteristic qualities to movements of attention. In the first, attention is kept incessantly on the move; before it is accommodated to A, it is disturbed by the suddenness, intensity, or novelty of B; in the second, it is kept all but stationary by the repeated presentation of the same impression. Such excess and defect of surprises make one realize a fact which in ordinary life is so obscure as to escape notice. But recent experiments have set this fact in a more striking light, and made clear what Locke had dimly before his mind in talking of a certain distance between the presentations of a waking man. In estimating very short periods of time, of a second or less indicated say by the beats of a metronome it is found that there is a certain period for which the mean of a number of estimates is correct, while shorter periods are on the whole over-estimated, and longer periods under-estimated. This we may perhaps take to be evidence of the time occupied in accommodating or fixing attention. Whether the point of indifference is determined by the rate of usual bodily movement, as Spencer asserts and Wundt conjectures, or conversely, is a question we need not discuss just now. But, though the fixation of attention does of course really occupy time, it is probably not in the first instance perceived as time, i.e. as continuous protensity, to use a term of Hamiltons, but as intensity. Thus, if this supposition be true, there is an element in our concrete time-perception which has no place in our abstract conception of time. In time conceived as physical there is no trace of intensity; in time psychically experienced duration is primarily an intensive magnitude, witness the comparison of times when we are bored with others when we are amused. It must have struck every one as strange who has reflected upon it that a period of time which seems long in retrospect such as an eventful excursion should have appeared short in passing; while a period, on the contrary, which in memory has dwindled to a wretched span seemed everlasting till it was gone. But, if we consider that in retrospect length of time is represented primarily and chiefly by impressions that have survived, we have, an explanation of one-half; and in the intensity of the movements of attention we shall perhaps find an explanation of the other. What tells in retrospect is the series a b c d e, &c.; what tells in the wearisome present is the intervening tiff, &c., or rather the original accommodation of which these temporal signs are the residuum. For, as we have seen elsewhere, the intensity of a presentation does not persist, so that in memory the residuum of the most intense feeling of tedium may only be so many ts in a memory-continuum whose surviving members are few and uninteresting. But in the actual experience, say, of a wearisome sermon, when the expectation of release is continually balked and attention forced back upon a monotonous dribble of platitudes, the one impressive fact is the hearers impatience. On the other hand, so long as we are entertained, attention is never involuntary, and there is no continually deferred expectation. Just as we are said to walk with least effort when our pace accords with the rate of swing of our legs regarded as pendulums, so in pastimes impressions succeed each other at the rate at which attention can be most easily accommodated, and are such that we attend willingly. We are absorbed in the present without being unwillingly confined to it; not only is

there no motive for retrospect or expectation, but there is no feeling that the present endures. Each impression lasts as long as it is interesting, but does not continue to monopolize the focus of consciousness till attention to it is fatiguing, because uninteresting. In such facts, then, we seem to have proof that our perception of duration rests ultimately upon quasi-motor acts of varying intensity, the duration of which we do not directly experience as duration at all. They do endure and their intensity is a function of their duration; but the intensity is all that we directly perceive. In other words, it is here contended that what Locke called an instant or moment the time of one idea in our minds without the succession of another, of one wherein therefore we perceive no succession at all is psychologically not a part in duration in that sense in which, as he says, we cannot conceive any duration without succession (Essay, ii. 16, 12).

But, if our experience of time depends primarily upon acts of attention to a succession of distinct objects, it would seem that time, subjectively regarded, must be discrete and not continuous. This, which is the view steadily maintained by the psychologists of Herbart's school, was implied if not stated by Locke, Berkeley and Hume. Locke hopelessly confuses time as perceived and time as conceived, and can only save himself from pressing objections by the retort, It is very common to observe intelligible discourses spoiled by too much subtlety in nice divisions. But Berkeley and Hume, with the mathematical discoveries of Newton and Leibnitz before them, could only protest that there was nothing answering to mathematical continuity in our experience. And, whereas Locke had tried to combine with his general psychological account the inconsistent position that none of the distinct ideas we have of either is without all manner of composition, Berkeley declares, For my own part, whenever I attempt to frame a simple idea of time, abstracted from the succession of ideas in my mind, which flows uniformly and is participated by all beings, I am lost and embrangled in inextricable difficulties. I have no notion of it at all, only I hear others say it is infinitely divisible, and speak of it in such a manner as leads me to harbour odd thoughts of my existence Time therefore being nothing, abstracted from the succession of ideas in our minds, it follows that the duration of any finite spirit must be estimated by the number of ideas or actions succeeding each other in that same spirit or mind (Principles of Knowledge, i. 98). Hume, again, is at still greater pains to show that the idea which we form of any finite quality is not infinitely divisible, but that by proper distinctions and separations we may run this idea up to inferior ones, which will be perfectly simple and indivisible. . . that the imagination reaches a minimum, and may raise up to itself an idea of which it cannot conceive any subdivision, and which cannot be diminished without a total annihilation (Human Nature, pt. ii. I, Greens ed., pp. 334 seq.).

At first blush we are perhaps disposed to accept this account of our time-perception, as Wundt, e.g. does, and to regard the attribution of continuity as wholly the result of after-reflection. But it may be doubted if this is really an exact analysis of the case.

i To this rate the indifference point mentioned above is obviously related. It has also been called adequate time or optional time. It is, however, a tempo that varies with the subject-matter attended to; when effective attention is more difficult the tempo is slower than it is when to attend is easy.

1 Cf. Wundt, Logik, i. 432.

Granted that the impressions to which we chiefly attend are distinct and discontinuous in their occupation of the focus of consciousness, and that, so far, the most vivid element in our time-experience is discrete; granted further that in recollection and expectation such objects are still distinct all which seems to imply that time is a mere plurality yet there is more behind. The whole field of consciousness is not occupied by distinct objects, neither are the changes in this field discontinuous. The experimental facts above-mentioned illustrate the transition from a succession the members of which are distinctly attended to to one in which they are indistinctly attended to, i.e. are not discontinuous enough to be separately distinguished. Attention does not move by hops from one definite spot to another. but, as Wundt himself allows, by alternate diffusion and concentration, like the foot of a snail, which never leaves the surface it is traversing. We have a clear presentation discerned as A or B when attention is gathered up; and, when attention spreads out, we have confused presentations not admitting of recognition. But, though not recognizable, such confused presentations are represented, and so serve to bridge over the comparatively empty

interval during which attention is unfocused. Thus our perception of a period of time is not comparable to so many terms in a series of finite units any more than it is to a series of infinitesimals. When attention is concentrated in expectation of some single impression, then, no doubt, it is brought to a very fine point (*zugespitzt*, as Herbart would say); and a succession of such impressions would be represented as relatively discrete compared with the representation of the scenery of a day-dream. But absolutely discrete it is not and cannot be. In this respect the truth is rather, with Herbert Spencer, who, treating of this subject from another point of view, remarks, When the facts are contemplated objectively, it becomes manifest that, though the changes constituting intelligence approach to a single succession, they do not absolutely form one (*Psychology*, i: 180).

On the whole, then, we may conclude that our concrete time-experiences are due to the simultaneous representation of a series of definite presentations both accompanied and separated by more or fewer indefinite presentations more or less confused; that, further, the definite presentations have certain marks or temporal signs due to the movements of attention; that the rate of these movements or accommodations is approximately constant; and that each movement itself is primarily experienced as an intensity.

Experimental Investigations concerning Memory and Association.

30. Of the vast mass of experimental work undertaken in recent years, that relating to memory and association is probably the most important. A brief account of some of it is therefore offered at this point, by way of illustrating the character of the new psychology.

The learning and retaining of a stanza of poetry, say, is obviously a function of many variables, such as the mode of presentation (whether the words are heard only, or heard and seen, or both heard, seen and spoken aloud), the length, familiarity with the words and ideas used, the number of repetitions, the attention given, &c. Familiarity of course implies previous learning and retaining; the first essential, therefore, in any attempt to study these processes from the beginning, is the exclusion of this factor. Accordingly Ebbinghaus, the pioneer in experiments of this kind, devised the new material, which is now regularly employed, namely, closed monosyllables, not themselves words, and strung together promiscuously into lines of fixed length so as never to form words: barn, nt, por, sig, nef, gud, &c., is an instance of such senseless verses. With very slight attention most persons would be able to reproduce three or four such syllables on a single reading or hearing; and by greater concentration six or seven might be so reproduced. This maximum, called sometimes the span, of prehension, has been repeatedly made the subject of special inquiry. In idiots it is found, as might be expected, remarkably low; in school children it increases rapidly between the ages of eight and fourteen, and then remains almost stationary, individual differences being small compared with the striking differences that appear when longer lines make repetitions necessary.⁴ This comparatively constant span of prehension is doubtless Cf. J. Jacobs and F. Galton on the Span of Prehension, *Mind*, (1887), pp. 75 sqq.; Bourdon, *Influence de l'âge sur la mémoire immédiate*, *Rev. phil.* (1894) xxxviii., 148 sqq.

closely connected with certain other psychical constants, such as the duration of the psychical present and of the primary memory-image, the tempo of movements of attention (~ 28, 29), &c. There are isolated investigations of these several conditions, but the subject as a whole still awaits systematic treatment. That it is not wanting in interest is evident when we consider that if our span of prehension were enlarged, a corresponding increase in the variety and range of metre and rhyme in poetry, of phrase in music, and of evolution in the dance would be possible. The limits at present imposed on these and like complexities find their ultimate explanation in the constants just mentioned.

With lines of greater length than seven syllables some repetition is requisite before they can be said correctly: the number of such repetitions was found by Ebbinghaus to increase very rapidly with the number of syllables to be learnt. In his own case, for lines of 12, 16, 24, 36 syllables the repetitions necessary were on the average 166, 30, 44, 55 respectively. Thus for a line exceeding in length that of the span of prehension only about five times, he required fifty-five times as many repetitions, if we may call the single presentation of the syllables a repetition. Substituting poetry for gibberish of equal amount, Ebbinghaus found that one-tenth the number of repetitions sufficed; the enormous saving thus effected showing how numerous and intimate are the ready-made associations that rhyme and reason involve. But at one and the same time to memorize five verses even of sense requires more than five times as

many repetitions as the memorizing of one. Two or three lines of inquiry here present themselves, e.g. (I) as to the comparative value of successive repetitions when several are taken together; (2) as to retention after an interval, as (a) a function of the number of repetitions previously made, and as (b) a function of the time; (.3) as to the respective effects of more or less cumulating, or more or less distributing, the repetitions, on the number of these required.

I. It is at once obvious that beyond a certain point exhaustion of attention renders further repetition for a time futile; thus Ebbinghaus found 64 repetitions at one sitting of six 16-syllable nonsense verses, a task lasting some three-quarters of an hour, was apt to bring on asthenia, a sort of epileptic aura, and the like! But keeping well within this heroic limit, a certain law of diminishing return, to use an economic analogy, discloses itself. Thus taking a line of 10 syllables, the number of syllables reproduced correctly and in their proper order, after 1, 3, 6, 9 and 12 repetitions, were 22, 2~5, 28, 34, 3.9 respectively, as the averages of a series of experiments with each of eight persons.¹ The first repetition is undoubtedly the best, assuming, of course, that the subjects start with their attention fully concentrated. Some persons naturally do this, many do not; the experimenter has therefore to take special precautions to secure uniformity in this respect.

2. (a) On relearning a line after an interval of twenty-four hours there was in Ebbinghaus's case an average saving of one repetition for every three made the day before. A line of 16 syllables, for example, required some 30 repetitions, and could then be said off correctly. If only 8 repetitions were taken at first, the line being underlearned, it probably appeared quite strange the next day, yet the proportional saving was no less; on the other hand, if an additional 30 repetitions followed immediately on the first, the line being doubly learned, in spite of the Cf. Dietze, *Untersuchungen über den Umfang des Bewusstseins u.s.w.*, *Phil. Studien* (1885), pp. 362 sqq.; L. W. Stern, *Psychische Prsenzzeit*, *Ztschr. f. Psychologie* (1897), xiii. 325 sqq.; Daniels, *Memory After-image and Attention*, *Am. Jour. of Psychology* (1893), vi. 558 sqq.

1, T. G. Smith, *The Place of Repetition in Memory*, *Psychological Rev.* (1896), pp. 20 sqq. The figures given are unquestionably low, partly, as the writer points out, in consequence of the method employed, but partly, as his detailed tables show, in consequence of the lax attention of three out of his eight subjects. Objections have been taken to the plan of this investigation, but it is doubtful if they invalidate the result here mentioned. Cf. Jost, *Die Associationsfestigkeit in ihrer Abhängigkeit von der Vertheilung der Wiederholungen*, *Ztschr. f. Psychologie*, xiv. 455 sqq.

familiarity next day apparent, the proportional saving was no greater. The absolute saving would, of course, be less. We are so far led to infer that the stronger associations effected by many repetitions at one time fall off more rapidly than weaker associations effected by fewer repetitions in the same way. Herbart in his *psychical dynamics* influenced probably by physical analogies conjectured that the sinking or inhibition of presentations generally was proportional to their intensity: the less there was to sink, the slower the sinking became. Recent experiments certainly point in this direction. (b) As to retention as a function of the time we all know that memories fade with time, but not at what precise rate. Ebbinghaus, by a series of prolonged experiments, ascertained the rate to be proportional to the logarithm of the time a result already implied in that connecting retention and intensity; albeit in inquiries of this kind independent confirmation is always of value.

3. Had the proportional saving just described held good indefinitely, some 100 repetitions of the 16 syllables at one time should have dispensed with any further repetition twenty-four hours afterwards; whereas, in fact, this result seemed never attainable. Beyond a certain degree of accumulation, an ever-diminishing return was manifest, and that apparently short of the stage at which exhaustion of attention began to be felt. But, contrariwise, when the repetitions were distributed over several days, an ever-increasing efficiency was then the result. Thus, for Ebbinghaus, 38 repetitions spread over three days were as effective as 68 taken together. The results of careful experiments by Jost with two different subjects, using G. E. Müller's method of telling (to be described later on), are still more conclusive. Comparing 8 repetitions on three successive days with 4 repetitions on six, and 2 on twelve, the efficiencies, tested twenty-four hours later, were respectively as 115, 35, and 54; and probably, as Jost surmises, the effect of the maximum distribution single repetition on twenty-four successive days would have been more

advantageous still, securing in fact the superiority of a first impression (cf. I, above) on every occasion. This result again, is in part explained by the law of sinking already found. For if the sinking were simply proportional to the time, or were independent of the intensity, there would so far be no reason why one mode of distributing a given number of repetitions should be more economical than another. There is, however, another reason for this superiority, less clearly implied, to which we shall come presently.

Invariably, and almost of necessity, a more or less complex rhythmical articulation becomes apparent as the syllables are repeated, even when as in the improved methods of G. E. MULLER and his collaborators they are presented singly and at regular intervals. A series of twelve syllables, for example, would be connected into six trochees, with a caesura in the middle of the verse; while in each half of it the first and last accented syllables would be specially emphasized; thus:

barn ifs I lup tl gn kr dub nf &c.

In trying to suppress this tendency and to repeat the syllables in a monotonous, staccato fashion, just as they were presented, the tempo, though really unchanged, seemed to be distinctly quickened, a consequence, doubtless, of the greater effort involved. Moreover, the attempt, which was seldom successful, about doubled the number of repetitions required for learning off, thereby showing how much is gained by this psychical organization of disconnected material. But the gain thus ensured was manifest in other ways. Each foot, whether dissyllabic or trisyllabic, became a new complex unit, the elements to be connected by successive association being thereby reduced to a half or a third, and the whole line seemingly shortened. The varied intonation, again, helped to fix the place of each foot in the verse, thus further facilitating the mind's survey of the whole. Such a transformation can hardly be accounted for so long as retention and association are regarded as merely mechanical and passive processes.

Psychical rhythm, upon which we, here touch, has also been experimentally investigated at great length, alike in its physiological psychological and aesthetical aspects. The topic is far too intricate and unsettled for discussion here, yet two or three points may be noted in passing. We are not specially concerned with objective rhythms, recurring series of impressions that is to say, in which there are actually periodic variations of intensity, interval and the like. What is remarkable is that even a perfectly regular succession of sounds (or touches), qualitatively and quantitatively all alike, a series therefore devoid of all objective rhythm, is nevertheless apprehended as rhythmically grouped, provided the rate lies between the limits of about 0.8 and 0.14. The slower of these rates leads to simple groups of two, replaced by groups of four or eight as the rate increases; groups of three and six also occur, though less frequently. The average duration of the groups, whether these are large or small, is comparatively constant, measuring rather more than one second. The subject usually keeps time by taps, nods or other accompanying movements; the pulse and respiration are also implicated. These organic rhythms have even been regarded as the prime source of all psychical rhythm and of its manifold aesthetic effects. Some connection there is unquestionably. As the decimal system corresponds to our possession of ten fingers, and our movements to the structure of our limbs, so here we may assume that physiological processes fix the limits within which psychical rhythm is possible, but yet may be as little an adequate cause of it or its developments as fingers are of arithmetic, or legs of an Irish jig. In motor rhythms, such as the last, the initiative is obviously psychical, and the respiratory and other periodic organic processes simply follow suit. And even sensory rhythms can often be varied at the subject's own choice, or on the suggestion of another; and then again the breathing is altered in consequence. Familiar instances of such procedure are to be found in the tunes so readily attributed to the puff of a locomotive, to the churning of a steamer's screw, and the like. Psychical rhythm, then, we may conclude, is due to attention or apperception, but the conditions determining it are many, and their relations very complex. If the presentations to be rhythmized (the rhythmizomenon, as the Germans say) succeed each other slowly, the length (or shall we say the breadth?) of the psychical present tells one way the first impression is below the threshold when the third appears. If they arrive rapidly, their intensity and duration and the span of prehension tell another way; for it is essential that they retain their individual distinctness and only so many can be grasped at once. But if the series continue long enough, or be

frequently experienced, sub-groups may be treated as individuals; and indeed till some facility is acquired, the subject attending is aware of no rhythm. In the act of attention itself there are phases, in so far as expectation involves preadjustment to what is coming: usually the first members of a tact are predominant, and the rhythm tends to fall; several alternations of accent within a complex rhythmic whole are of course still compatible with this. But it is important to note that, whether simple or complex, the rhythm is an intuited unity as truly as a geometrical figure may be. Unlike a geometrical figure, however, it rarely or never has symmetry. We cannot reverse a tune and obtain an effect comparable with that obtained by reprinting the score backwards in line with the original. We now pass to a question in which the psychological bearing of this fact becomes apparent.¹ But first a new method of dealing with memory-problems must be mentioned, in which the connection between rhythmizing and memorizing has been turned to account by the Göttingen psychologists. The method of Ebbinghaus consisted in ascertaining the repetitions saved in consequence of previous repetitions, when the verse was relearned some fixed time later. Hence this method is called the learning method or the method of saving. When, a given time after a certain number of repetitions (say) in trochaic measure, the subject is confronted with one of the accented syllables and asked to name the unaccented syllable that belongs to it, he will answer sometimes rightly, sometimes wrongly, and sometimes be unable to answer at all. Thus, the new method is therefore named *Treffermethode*, the method of shots, or, let us say, the telling method. It enables the experimenter to obtain far more insight into details than was possible before, for the misses as well as the hits are instructive. Moreover, by measuring the time of each answer (*Trefferzeit*) and comparing these times together, much can be learnt; in stronger or recent associations, for example, the answers being quicker than in weaker or older ones.

Does association work forwards only or backwards also, as the middle link of a chain, when lifted, raises the contiguous links on either side of it? This is certainly not the case when the forward direction makes sense, but with nonsense verses, if the mechanical analogy is a sound one, such reversal is to be expected. For here there are none of the obstructing associations which The following are among the more important papers on rhythm:

T. L. Bolton, *Rhythm*, *Am. Journal of Psychology* (1894), pp. 145 sqq.; E. E. Meumann, *Untersuchungen z. Psychologie u. Aesthetik des Rhythmus*, *Phil. Studien* (1894), x. 249 sqq., 393 sqq.; M. K. Smith, *Rhythmus und Arbeit*, *Phil. Studien* (1900), xvi. 71 sqq. 197 sqq.; *Arbeit und Rhythmus* (1899), by K. Bucher, a well-known economist, bringing out the teleological aspects of rhythm.

rhyme and reason imply. In learning a verse backwards Ebbinghaus found a saving of 12.4% of the time originally taken up in learning it forwards. A saving almost as great (10.4%) was effected by relearning a like verse forwards, but skipping one syllable: the order of syllables, that is to say, being 1, 3, 5, .. 15, 2, 4, .. 16. Even when learning backwards and skipping one syllable, Ebbinghaus found a saving of 5%. But the number of his experiments (four) was too few to give this result much value, as he fully admits. These experiments as a whole, then, might incline us to suppose that association does work in both directions, though the connections backwards are considerably weaker. But if so the associations both ways should be alike at least in form continuous, that is to say, backwards, d c b a, as well as forwards, a b c d. The facts at present available are, however, against this. In two or three hundred, experiments by Müller and Pilzecker, verses of twelve syllables were repeated a set number of times in anapaestic measure accented, that is to say, on the 3rd, 6th, 9th and 12th. After a fixed interval the subject, confronted with one of the accented syllables, mentioned any of the other syllables which he called to mind. Now the cases in which the syllable immediately preceding was revived were only about half as frequent as those in which the syllable next but one preceding was revived; the time of telling (*Trefferzeit*) for the latter was also shorter. This result is incompatible with the theory of continuous backward association, but it is readily explained by the fact that the group of three syllables had become one complex whole, and it shows that the tendency to reinstate the initial member of the group is stronger than that to reinstate the middle. The saving effected in Ebbinghaus's experiment is also thus explained.²

A somewhat paradoxical situation is brought to light when the method of saving and the method of telling are used together. In the experiments by Jost, mentioned above, the series of verses were repeated thirty times; after an interval of twenty-four hours one series was tested by the first method and the other by the second. Two new series

were then taken: the first repeated four times, and after an interval of a minute tested by the first method; the other was then repeated in like manner, and tested after the same interval by the second method. The old series was found (by the method of saving) to require on an average 5~85 repetitions for relearning, and the new 9~6; yet on the method of telling, the new series yielded 2.7 hits, with an average time of about 1/2 second for each, while the old yielded only .9 hits, with an average time of 4 1/2 seconds for each. Thus one may be able to reproduce relatively little of a given subjectmatter, and yet require only a few repetitions in order to learn it off anew; on the other hand, one may know relatively much, and still find many more repetitions requisite for such complete learning. The age of the associations is then important. Other things being equal, we may conclude that each fresh repetition effects more for old associations than for recent ones. It might be supposed that the strength of the old associations was more uniform and on the average greater than the strength of the new; so that while none of the old were far below the threshold, few, if any, were above it; whereas more of the new might be above the threshold though the majority had lapsed entirely. And the latter would certainly be the case if the subject of experiment tried to make sure of a few hits, and paid no attention to the rest of the series. Due care was, however, taken that the ends of the experiment should not in this way be defeated. Also, there is ample evidence to show that the, supposed greater uniformity in strength of old associations is not, in fact, the rule. We seem left, then, to conjecture that the difference is the effect of the process of assimilation working subconsciously that psychical aspect of nervous growth which Professor James has aptly characterized by saying that we learn to skate in summer and to swim in winter. It continually happens that we can recognize connections that we are quite unable to reproduce. To the diminished strength of an association, as tested by the There are still other forms of what seems at first sight to be regressive association, but none that do not admit of explanation without this assumption.

method of telling, there may then quite well be an equivalent set-off in more developed assimilation. As a seed germinates it has less latent energy, but this is replaced by growth in root and stem: similar relations may obtain when an old association is said merely to lose strength. On the other hand within the range of the primary memory-image we can often reproduce what after a longer interval we should fail to recognize. We seem warranted, then, in concluding that this conception of association-strength, so freely used by G. E. Muller and his co-workers, requires more analysis than it has yet received. The two factors which their methods disclose in it appear to confirm the distinction we have already made between impressions and free ideas. They help us also to understand, further, the superiority of distributed over cumulated repetition, of inwardly digesting over cram.

Feeling.

31. Such summary survey as these limits allow of the more elementary facts of cognition is here at an end; so far the most conspicuous factors at work have been those of what might be termed the ideational mechanism. In the higher processes of thought we have to take more account of mental activity and of the part played by language. But it seems preferable, before entering upon this, to explore also the emotional and active constituents of mind in their more elementary phases.

In our preliminary survey we have seen that psychical life consists in the main of a continuous alternation of predominantly receptive and predominantly reactive consciousness. In its earliest form experience is simply an interplay of alternations of sensation and movement. At a later stage we find that in the receptive phase ideation is added to sensation; and that in the active phase thought and fancy, or the voluntary manipulation and control of the ideational trains, are added to the voluntary manipulation and control of the muscles. At this higher level also it is possible that either form of receptive consciousness may lead to either form of active:

sensations may lead to thought rather than to action in the restricted sense, and ideas apart from sensations may prompt to muscular exertion. There is a further complication still: not only may either sensations or ideas lead to either muscular or mental movements, but movements themselves, whether of mind or limb, may as mere presentations determine other movements of either kind. In this respect, however, movements and thoughts either in themselves or through their sensational and ideational accompaniments may be regarded as pertaining to the receptive side of consciousness. With these provisos, then, the, broad generalization may hold that receptive states

lead through feeling to active states, and that presentations that give neither pleasure nor pain meet with no responsive action. But first the objection must be met that presentations that are in themselves purely indifferent lead continually to very energetic action, often the promptest and most definite action. To this there are two answers. First, on the higher levels of psychical life presentations in themselves indifferent are often indirectly interesting as signs of, or as means to, other presentations that are more directly interesting. It is enough for the present, therefore, if it be admitted that all such indifferent presentations are without effect as often as they are not instrumental in furthering the realization of some desirable end. Secondly, a large class of movements, such as those called sensori-motor and ideo-motor, are initiated by presentations that are frequently, it must be allowed, neither pleasurable nor painful. In all such cases, however, there is probably only an apparent exception to the principle of subjective selection. They may all be regarded as instances of another important psychological principle which we shall have to deal with more fully by and by, viz, that voluntary actions, and especially those that either only avert pain or are merely subsidiary to pleasuregiving actions, tend at length, as the effect of habit in the individual and of heredity in the race, to become secondarily automatic, as it has been called, Stich mechanical or instinctive dexterities make possible a more efficient use of present energies in securing pleasurable and interesting experiences, and, like the rings of former growths in a tree, afford a basis for further advance, as old interests pall and new ones present themselves. Here, again, it suffices for our present purpose if it be granted that there is a fair presumption in favor of supposing all such movements to have been originally initiated by feeling, as certainly very many of them were.

Of the feeling itself that intervenes between these sensory and motor presentations there is but little to be said. The chief points have been already insisted upon, viz, that it is not itself a presentation, but a purely subjective state, at once the effect of a change in receptive consciousness and the cause of a change in motor consciousness; hence its continual confusion either with the motor presentation, whether ideational or sensori-motor, that are its expression, or with the sensations or ideas that are its cause. For feeling as such is, so to put it, matter of being rather than of direct knowledge; and all that we know about it we know from its antecedents or consequents in presentation.

Pure feeling, then, ranging solely between the opposite extremes of pleasure and pain, we are naturally led to inquire whether there is any corresponding contrast in the causes of feeling on the one hand, and on the other feeling.

in its manifestations and effects. To begin with the first question, which we may thus formulate: What, if any, are the invariable differences characteristic of the presentations or states of mind we respectively like and dislike; or, taking account of the diverse sources of feelingsensuous, aesthetic, intellectual, activeis there anything that we can predicate alike of all that are pleasurable and deny of all that are painful, and vice versa? It is at once evident that at least in presentations objectively regarded no such common characters will be found; if we find them anywhere it must be in some relation to the conscious subject i.e. in the fact of presentation itself. There is one important truth concerning pleasures and pains that may occur at once as an answer to our inquiry, and that is often advanced as such, viz, that whatever is pleasurable tends to further and perfect life, and whatever is painful to disturb or destroy it. The many seeming exceptions to this law of self-conservation, as it has been called, probably all admit of explanation in conformity with it, so as to leave its substantial truth unimpeached. But this law, however stated, is too teleological to serve as a purely psychological principle, and, as generally formulated and illustrated, it takes account of matters quite outside the psychologists ken. We are not now concerned to know why a bitter taste e.g. is painful or the gratification of an appetite pleasant, but what marks distinctive of all painful presentations the one has and the other lacks. From a biological standpoint it may be true enough that the final cause of sexual and parental feelings is the perpetuation of the species; but this does not help us to ascertain what common character they have as actual sources of feeling for the individual. From the biological standpoint again, even the senile decadence and death of the individual may be shown to be advantageous to the race; but it would certainly be odd to describe this as advantageous to the individual; so different are the two points of view. What we are in search of, although a generalization, has reference to something much more concrete than concepts like race or life, and does not require us to go beyond the consciousness of the moment to such ulterior facts as they imply.

Were it possible it would be quite unnecessary to examine in detail every variety of pleasurable and painful consciousness in connection with a general inquiry of this sort. It will be best to enumerate at the outset the only cases that specially call for investigation. Feeling may arise mainly from (a) single sensations or movements, including in these what recent psychologists call their tone; or it may be chiefly determined by (b) some combination or arrangement of these primary presentations hence what might be styled the lower aesthetic feelings. We have thus among primary presentations a more material and a more formal cause or ground of feeling. The mere representation of these sources of feeling involves nothing of moment: the idea of a bright color or a bitter taste has not definiteness or intensity enough to produce feeling; and the ideal presentation of a harmonious arrangement of sounds or colors does not in itself differ essentially as regards the feeling it occasions from the actual presentation. When we advance to the level at which there occur ideas more complex and more highly representative or re-representative, as Mr Spencer would say than any we have yet considered we can again distinguish between material and formal grounds of feeling. To the first we might refer, e.g. (c) the egoistic, sympathetic, and religious feelings; this class will probably require but brief notice. The second, consisting of (d) the intellectual and (e) the higher aesthetic feelings, is psychologically more important. There is a special class of feelings, which might be distinguished from all the preceding as reflex, since they arise from the memory or expectation of feelings but in fact these are largely involved in all the higher feelings, and this brief reference to them will suffice: of such hope, fear, regret are examples.

a. The quality and intensity as well as the duration and frequency of a sensation or movement all have to do with sensations determining to what feeling it gives rise. It will and move- be best to leave the last two out of account for a time. Apart from these, the pleasantness or painfulness of a movement appears to depend solely upon its intensity, that is to say, upon the amount of effort necessary to effect it, in such wise that a certain amount of exertion is agreeable and any excess disagreeable. Some sensations also, such as those of light and sound, are agreeable if not too intense, their pleasantness increasing with their intensity up to a certain point, on nearing which the feeling rapidly changes and becomes disagreeable or even painful. Other sensations, as bitter tastes, e.g. are naturally unpleasant, however faint though we must allow the possibility of an acquired liking for moderately bitter or pungent flavours. But in every case such sensations produce unmistakable manifestations of disgust, if at all intense. Sweet tastes, on the other hand, however intense, are pleasant to an unspoiled palate, though apt before long to become mawkish, like sweetest honey, loathsome in his own deliciousness, as confectioners apprentices are said soon to find. The painfulness of all painful sensations or movements increases with their intensity without any assignable maximum being reached.

A comparison of examples of this kind, which it would be tedious to describe more fully and which are indeed too familiar to need much description, seems to show (1) that, so far as feeling is determined by the intensity of a presentation, there is pleasure so long as attention can be adapted or accommodated to the presentation, and pain so soon as the intensity is too great for this; and (2) that, so far as feeling is determined by the quality of a presentation, those that are pleasurable enlarge the field of consciousness and introduce or agreeably increase in intensity certain organic sensations, while those that are painful contract the field of consciousness and introduce or disagreeably increase in intensity certain organic sensations. There are certain other hedonic effects due to quality, the examination of which we must for the present defer. Meanwhile as to the first point it may be suggested, as at any rate a working hypothesis, that in itself any and every simple sensation or movement is pleasurable if there is attention forthcoming adequate to its intensity. In the earliest and simplest phases of life, in which the presentation-continuum is but little differentiated, it is reasonable to suppose that variation in the intensity of presentation preponderates over changes in the quality of presentation, and that to the same extent feeling is determined by the former and not by the latter. And, whereas this dependence on intensity is invariable, there is no ground for supposing the quality of any primary presentation, when not of excessive intensity, to be invariably disagreeable; the changes above-mentioned in the hedonic effects of bitter tastes, sweet tastes, or the like tend rather to prove the contrary. This brings us to the second point, and it requires some elucidation. We need here to call to mind the continuity of our presentations and especially the existence of a background of organic sensations or somatic consciousness, as it is variously termed. By the time that qualitatively distinct presentations have been

differentiated from this common basis it becomes possible for any of these, without having the intensity requisite to affect feeling directly, to change it indirectly by means of the systemic sensations accompanying them, or, in other words, by their tone. The physiological concomitants of these changes of somatic tone are largely reflex movements or equivalents of movements, such as alterations in circulatory, respiratory and excretory processes. Such movements are psychologically movements no longer, and are rightly regarded as pertaining wholly to the sensory division of presentations. But originally it may have been otherwise. To us now, these organic reflexes seem but part and parcel of the special sensation whose tone they form, and which they accompany even when that sensation, so far as its mere intensity goes, might be deemed indifferent. But perhaps at first the special qualities that are now throughout unpleasant may have been always presented with an excessive intensity that would be painful on this score alone, and the reflexes that at present pertain to them may then have been psychologically the expression of this pain. At any rate it is manifestly unfair to refuse either to seek out the primitive effects of the sensations in question and allow for the workings of heredity, or to reckon this accompanying systemic feeling as part of them. The latter seems the readier and perhaps, too, the preferable course. A word will now suffice to explain what is meant by enlarging and contracting the field of consciousness and agreeably increasing or decreasing certain elements therein.

The difference in point is manifest on comparing the flow of spirits, buoyancy and animation which result from a certain duration of pleasurable sensations with the lowness or depression of spirits, the gloom and heaviness of heart, apt to ensue from prolonged physical pain. Common language, in fact, leaves us no choice but to describe these contrasted states by figures which clearly imply that they differ in the range and variety of the presentations that make up consciousness, and in the quickness with which these succeed each other.² It is not merely that in hilarity as contrasted with dejection the train of ideas takes a wider sweep and shows greater liveliness, but as it were at the back of this, on the lower level of purely sensory experience, certain organic sensations which are ordinarily indifferent acquire a gentle intensity, which seems by flowing over to quicken and expand the ideational stream as we see, for instance, in the effects of mountain air and sunshine. Or, on the other hand, these sensations become so violently intense as to drain off and engulf all available energy in one monotonous corroding care, an oppressive weight which leaves no place for free movement, no life or leisure to respond to what are wont to be pleasurable solicitations.¹

As regards the duration and the frequency of presentation, it is in general true that the hedonic effect soon attains its maximum, and then, if pleasant, rapidly declines, or even changes to its opposite. Pains in like manner decline, but more slowly and without in the same sense changing to pleasures. The like holds of too frequent repetition. Physiological explanation of these facts, good as far as it goes, is, of course, at once forthcoming: sensibility is blunted, time is required for restoration, and so forth; but at least we want the psychological equivalent of all this. In one respect we find nothing materially new; so ² This is one among many cases in which the study of a vocabulary is full of instruction to the psychologist. The reader who will be at the trouble to compare the parallel columns under the heading *Passive Affections*, in Rogets Thesaurus of English Words and Phrases, will find ample proof both of this general statement and of what is said above in the text.

Observation and experiment show that the physical signs of pain in the higher animals consist in such changes as a lowered and weaker pulse, reduction of the surface temperature, quickened respiration, dilatation of the iris, and the like. And so far as can be ascertained these effects are not altogether the emotional reaction to pain but in large measure its actual accompaniments, the physical side of what we have called its tone. The following is a good description of these general characteristics of feeling: *En mme temps, ii Se fait une srie de mouvements ghnraux de flexion, comme si lanimal voulait se rendre plus petit, et offrir moms de surface a Ia douleur. Ii est inthressant de remarquer que, pour lhomme comme pour tous les animaux, on retrouve ces mhmes mouvements gnraux de flexion et dextension rhpondant aux sentiments differents de plaisir et de la douleur. Le plaisir rpond a un mouvement depanouissement, de dilatation, dextension. Au contraire, dans Ia douleur, on se rapetisse, on se referme sur soi; cest un mouvement gnral de flexion* (C. Richet, *L'Homme et l'Intelligence: la dozdeur*, p. 9).

far as continued presentation entails diminished intensity we have nothing but diminished feeling as a consequence; so far as its continued presentation entails satiety the train of agreeable accompaniments ceases in which the pleasurable tone consisted. But in another way long duration and frequent repetition produce indirectly certain characteristic effects on feeling in consequence of habituation and accommodation. We may get used to a painful presentation in such wise that we cease to be conscious of it as positively disagreeable, though its cessation is at once a source of pleasure; in like manner we come to require things simply because it is painful to be without them, although their possession has long ceased to be a ground of positive enjoyment. This loss (or gain) consequent on accommodation has a most important effect in changing the sources of feeling: it helps to transfer attention from mere sensations to what we may distinguish as interests.

b. Certain sensations or movements not separately unpleasant become so when presented together or in immediate succession; Combina- and contrariwise, some combinations of sensations of or of movements may be such as to afford pleasure Sensal Ions distinct from, and often greater than, any that and of they separately yield. Here again we find that in Movements.

some cases the effect seems mainly to depend on intensity, in others mainly on quality. (i.) As instances of the former may be mentioned the pleasurable of a rhythmic succession of sounds or movements, of symmetrical forms and curved outlines, of gentle crescendos and diminuendos in sound, and of gradual variations of shade in color, and the painfulness of flickering lights, beats in musical notes, false time, false steps, false quantities, and the like. In all these, whenever the result is pleasurable, attention can be readily accommodated is, so to say, economically meted out; and, whenever the result is painful, attention is surprised, balked, wasted. Thus we can make more movements and with less expenditure of energy when they are rhythmic than when they are not, as the performances of a ball-room or of troops marching to music amply testify. Of this economy we have also a striking proof in the ease with which rhythmic language is retained. (ii.) As instances of the latter may be cited those arrangements of musical tones and of colors that are called harmonious or the opposite. Harmony, however, must be taken to have a different meaning in the two cases. When two or three tones harmonize there results, as is well known, a distinct pleasure over and above any pleasure due to the tones themselves. On the other hand, tones that are discordant are unpleasant in spite of any pleasantness they may have singly. Besides the negative condition of absence of beats, a musical interval to be pleasant must fulfil certain positive conditions, sufficiently expressed for our purpose by saying that two tones are pleasant when they give rise to few combination-tones, and when among these there are several that coincide, and that they are unpleasant when they give rise to many combination-tones, and when among these there are few or none that coincide. Too many tones together prevent any from being distinct. But where tones coincide the number of tones actually present is less than the number of possible tones, and there is a proportionate simplification, so to put it:

more is commanded and with less effort. An ingenious writer² on harmony, in fact, compares the confusion of a discord to that of trying to reckon up a sum in ones head and failing because the numbers are too high. A different explanation must be given of the so-called harmonies of color. The pleasurable effect of gradations of color or shade to which, as Ruskin tells us, the rose owes its victorious beauty when compared with other flowers has been already mentioned: it is rather a quantitative than a qualitative effect. What we are iIt has been definitely formulated, but in physiological language, by Bain as the Law of Novelty: No second occurrence of any great shock or stimulus, whether pleasure, pain, or mere excitement, is ever fully equal to the first, notwithstanding that full time has been given for the nerves to recover from their exhaustion (Mind and Body, p. 5!). Cf. also his Emotions and Will, 3rd ed.,

p. 83.

² Preyer, *Akuslisc/ie Untersuchungen*, p. 59

now concerned with are the pleasurable or painful combinations of different ungraduated colors. A comparison of these seems to justify the general statement that those colors yie[d] good combinations that are far apart in the color circle, while those near together are apt to be discordant. The explanation given, viz, that the one arrangement

secures and the other prevents perfect retinal activity, seems on the whole satisfactory especially if we acknowledge the tendency of all recent investigations and distinguish sensibility to color and sensibility to mere light as both psychologically and physiologically two separate facts. Thus, when red and green are juxtaposed, the red increases the saturation of the green and the green that of the red, so that both colors are heightened in brilliance. But such an effect is only pleasing to the child and the savage; for civilized men the contrast is excessive, and colors less completely opposed, as red and blue, are preferred, each being a rest from the other, so that as the eye wanders to and fro over their border different elements are active by turns. Red and orange, again, are bad, in that both exhaust in a similar manner and leave the remaining factors out of play.

c. The more or less spontaneous workings of imagination, as well as that direct control of this working necessary to thinking in the stricter sense are always productive of pain Ideation and or pleasure in varying degrees. Though the ex- inteilection.

position of the higher intellectual processes has not yet been reached, there will be no inconvenience in at once taking account of their effects on feeling, since these are fairly obvious and largely independent of any analysis of the processes themselves. It will also be convenient to include under the one term intellectual feelings, not only the feelings connected with certainty, doubt, perplexity, comprehension, and so forth, but also what the Herbartian psychologists whose work in this department of psychology is classical have called par excellence the formal feelings that is to say, feelings which they regard as entirely determined by the form of the flow of ideas, and not by the ideas themselves. Thus, be the ideas what they may, when their onward movement is checked by divergent or obstructing lines of association, and especially when in this manner we are hindered, say, from recollecting a name or a quotation (as if, e.g. the names of Archimedes, Anaximenes and Anaximander each arrested the clear revival of the other), we are conscious of a certain strain and oppressiveness, which give way to momentary relief when at length what is wanted rises into distinct consciousness and our ideas resume their flow. Here again, too, as in muscular movements, we have the contrast of exertion and facility, when thoughts refuse to flow and we work invita Minerva, or when the appropriate ideas seem to unfold and display themselves before us like a vision before one inspired. To be confronted with propositions we cannot reconcile i.e. with what is or appears inconsistent, false, contradictory is apt to be painful; the recognition of truth or logical coherence, on the other hand, is pleasurable. The feeling in either case is, no doubt, greater the greater our interest in the subject-matter; but the mere conflict of ideas as such is in itself depressing, while the discernment of agreement, of the one in the many, is a distinct satisfaction. Now in the one case we are conscious of futile efforts to comprehend as one ideas which the more distinctly we apprehend them for the purpose only prove to be the more completely and diametrically opposed: we can only affirm and mentally envisage the one by denying and suppressing the representation of the other; and yet we have to strive to predicate both and to embody them together in the same mental image. Attention is like a house divided against itself: there is effort but it is not effective, for the field of consciousness is narrowed and the flow of ideas arrested. When, on the other hand, we discern a common principle among diverse and apparently disconnected particulars, instead of all the attention we can command being taxed in the separate apprehension of these disjecta membra, they become as one, and we seem at once to have at our disposal resources for the command of an enlarged field and the detection of new resemblances.

d. Closely related to these formal intellectual feelings are certain of the higher aesthetic feelings. A reference to some Higher of the commonplaces of aesthetical writers may be Aesthetic sufficient briefly to exhibit the leading characteristics Feelings, of these feelings. There is a wide agreement among men in general as to what is beautiful and what is not, and it is the business of a treatise on empirical aesthetics from an analysis of these matters of fact to generalize the principles of taste to do, in fact, for one source of pleasure and pain what we are here attempting in a meagre fashion for all. And these principles are the more important in their bearing upon the larger psychological question, because among aesthetic effects are reckoned only such as are pleasing or otherwise in themselves, apart from all recognition of utility, of possession, or of ulterior gratification of any kind whatever. Thus, if it should be objected that the intellectual satisfaction of consistency is really due to its utility, to the fact that what is incompatible and incomprehensible is of no avail for practical guidance, at least this objection will not hold against the aesthetic

principle of unity in variety. In accordance with this primary maxim of art criticism, at the one extreme art productions are condemned for monotony, as incapable of sustaining interest because empty, bald and poor; at the other extreme they are condemned as too incoherent and disconnected to furnish a centre of interest. And those are held as so far praiseworthy in which a variety of elements, be they movements, forms, colors or incidents, instead of conflicting, all unite to enhance each other and to form not merely a mass but a whole. Another principle that serves to throw light on our inquiry is that which has been called the principle of economy, *i. viz.*, that an effect is pleasing in proportion as it is attained by little effort and simple means. The brothers Weber in their classic work on human locomotion discovered that those movements that are aesthetically beautiful are also physiologically correct; grace and ease, in fact, are wellnigh synonymous, as Herbert Spencer points out, and illustrates by apt instances of graceful attitudes, motions and forms. The same writer,² again, in seeking for a more general law underlying the current maxims of writers on composition and rhetoric is led to a special formulation of this principle as applied to style, *viz.*, that economy of the recipients attention is the secret of effect.

Perhaps of all aesthetical principles the most wide-reaching, as well as practically the most important, is that which explains aesthetic effects by association. Thus, to take one example where so many are possible, the croaking of frogs and the monotonous ditty of the cuckoo owe their pleasantness, not directly to what they are in themselves, but entirely to their intimate association with spring-time and its gladness. At first it might seem, therefore, that in this principle there is nothing fresh that is relevant to our present inquiry, since a pleasure that is only due to association at once carries back the question to its sources; so that in asking why the spring, for example, is pleasant we should be returning to old ground. But this is not altogether true; aesthetic effects call up not merely ideas but ideals. A great work of art improves upon the real in two respects: it intensifies and it transfigures. It is for art to gather into one focus, cleared from dross and commonplace, the genial memories of a lifetime, the instinctive memories of a race; and, where theory can only classify and arrange what it receives, art in a measure free from the literal unities of time and place creates and glorifies. Still art eschews the abstract and speculative; however plastic in its hands, the material wrought is always that of sense. We have already noticed more than once the power which primary presentations have to sustain vivid re-presentations, and the bearing of this on the aesthetic effects of works of art must be straightway obvious. The notes and colors, rhymes and rhythms, forms and movements, which produce the lower aesthetic feelings also serve as the means of bringing into view, Cf. Fechner, *Vorschule der Aesthetik*, ii. 263. Fechners full style for it is *Princip der okonomischen Verwendung der Mittel oder des kleinsten Kraftniasses*.

² *Essays, Scientific, Political and Speculative*, vol. ii., Ess. I. and VIII.

and maintaining at a higher level of vividness, a wider range and flow of pleasing ideas than we can ordinarily command.

When we reach the level at which there is distinct selfconsciousness (cf. 44), we have an important class of feelings determined by the relation of the present-*E-istic* and tion of self to the other contents of consciousness. Socialistic And as the knowledge of other selves advances pan Feelings. passu with that of ones own self, so along with the egoistic feelings appear certain social or altruistic feelings. The two have much in common; in pride and shame, for example, account is taken of the estimate other persons form of us and of our regard for them; while, on the other hand, when we admire or despise, congratulate or pity another, we have always present to our mind a more or less definite conception of self in like circumstances. It will therefore amply serve all the ends of our present inquiry if we briefly survey the leading characteristics of some contrasted egoistic feelings, such as self-complacency and disappointment. When. a man is pleased with himself, his achievements, possessions or circumstances, such pleasure is the result of a comparison of his present position in. this respect with some former position. or with the position of someone else. Without descending to details, we may say that two prospects are before him, and the larger and fairer is recognized as his own. Under disappointment or reverse the same two pictures may be present to his mind, but accompanied by the certainty that the better is n.ot his or is his no more. So far, then, it might be said the contents of his consciousness are in each case the same, the whole difference lying in the different relationship to self. But this makes all the difference even to the contents of his consciousness, as we shall at once see if we consider its active

side. Even the idlest and most thoughtless mind teems with intentions and expectations, and in its prosperity, like the fool in the parable, thinks to pull down its barns and build greater, to take its ease, eat, drink and be merry. The support of all this pleasing show and these far-reaching aims is, not the bare knowledge of what abundance will do, but the reflection—These many goods are mine. In mind alone final causes have a place, and the end can produce the beginning; the prospect of a summer makes the present into spring. But action is paralysed or impossible when the means evade us. In so far as a man's life consists in the abundance of the things he possesseth, we see then why it dwindles with these. The like holds where self-complacency or displacency rests on a sense of personal worth or on the honor or affection of others.

32. We are now at the end of our survey of certain typical pleasurable and painful states. The answer to our inquiry which it seems to suggest is that there is pleasure in proportion as a maximum of attention is effectively exercised, and pain in proportion as such effective attention is frustrated by distractions, shocks, or incomplete and faulty adaptations, or fails of exercise, owing to the narrowness of the field of consciousness and the slowness and smallness of its changes. Something must be said in explication of this formula, and certain objections that might be made to it must be considered. First of all it implies that feeling is determined partly by quantitative, or, as we might say, material conditions, and partly by conditions that are formal or qualitative. As regards the former, both the intensity or concentration of attention and its diffusion or the extent of the field of consciousness have to be taken into account. Attention, whatever else it is, is a limited quantity *Pluribus intentus minor est ad singula sensus* to quote Hamilton's pet adage. Moreover, as we have seen, attention requires time. If, then, attention be distributed over too wide a field, there is a corresponding loss of intensity, and so of distinctness: we tend towards a succession of indistinguishables, therefore, from no succession. We must not have more presentations in the field of consciousness than will allow of some concentration of attention: a maximum diffusion will not do. A maximum concentration, in like manner even if there were no other objection to it would seem to conflict with the general conditions of consciousness, inasmuch as a single simple presentation, however intense, would admit of no differentiation, and any complex presentation is in some sort a plurality. The most effective attention, then, as regards its quantitative conditions, must lie somewhere between the two zeros of complete indifference and complete absorption. If there be an excess of diffusion, effective attention will increase up to a certain point as concentration increases, but beyond that point will decrease if this intensification continues to increase; and vice versa, if there be an excess of concentration. But, inasmuch as these quantitative conditions involve a plurality of distinguishable presentations or changes in consciousness, the way is open for formal conditions as well. Since different presentations consort differently when above the threshold of consciousness together, one field may be wider and yet as intense as another, or intenser and yet as wide, owing to a more advantageous arrangement of its constituents. The doctrine here developed, viz., that feeling depends on efficiency, is in the main as old as Aristotle; all that has been done is to give it a more accurately psychological expression, and to free it from the implications of the faculty theory, in which form it was expounded by Hamilton. Of possible objections there are at least two that we must anticipate, and the consideration of which will help to make the general view clearer. First, it may be urged that, according to this view, it ought to be one continuous pain to fall asleep, since in this state consciousness is rapidly restricted both as to intensity and range. This statement is entirely true as regards the intensity and substantially true as regards the range, at least of the higher consciousness:

certain massive and agreeable organic sensations pertain to falling asleep, but the variety of presentations at all events grows less. But then the capacity to attend is also rapidly declining; even a slight intruding sensation entails an acute sense of strain in one sense, in place of the massive pleasure of repose throughout; and any voluntary concentration either in order to move or to think involves a like organic conflict, futile effort, and arrest of balmy ease. There is as regards the more definite constituents of the field of consciousness a close resemblance between natural sleepiness and the state of monotonous humdrum we call tedium or ennui; and yet the very same excitement that would relieve the one by dissipating the weariness of inaction would disturb the other by renewing the weariness of action: the one is commensurate with the resources of the moment, the other is not. Thus the maximum of effective attention in question is, as Aristotle would say, a maximum relative to us. It is possible, therefore, that a

change from a wider to a narrower field of consciousness may be a pleasurable change, if attention is more effectively engaged. Strictly speaking, however, the so-called negative pleasures of rest do not consist in a mere narrowing of the field of consciousness so much as in a change in the amount of concentration. Massive organic sensations connected with restoration take the place of the comparatively acute sensations of jaded powers forced to work. We have, then, in all cases to bear in mind this subjective relativity of all pleasurable or painful states of consciousness.

As it is impossible, to say that any distinguishable presentation is absolutely simple, the hypothesis of subconsciousness would leave us free to assume that any pleasantness or unpleasantness that cannot be explained on the score of intensity is due to some obscure harmony or discord, compatibility or incompatibility, of elements not separately discernible. But this, though tempting, is not really a very scientific procedure. If a particular presentation is pleasurable or painful in such wise as to lead to a redistribution of attention, it is reasonable to look for an explanation primarily in its connection with the rest of the field of consciousness. Moreover, it is obvious since what takes place in subconsciousness can only be explained in analogy with what takes place in consciousness that, if we have an inexplicable in the one, we must have a corresponding inexplicable in the other. If the feeling produced by what comports itself as a simple presentation cannot be explained by what is in consciousness, we should be forced to admit that some presentations are unpleasant simply because they are unpleasant in an inexplicability which the hypothesis of subconsciousness might push farther back but would not remove.

33. But there is still another and more serious difficulty to face. It has long been a burning question with theoretical moralists whether pleasures differ only quantitatively or differ qualitatively as well, whether psycho-logical analysis will justify the common distinction—

of higher and lower pleasures or force us to recognize nothing but differences of degree, of duration, and so forth as expounded, e.g. by Bentham, whose cynical motto, pushpin is as good as poetry provided it be as pleasant, was long a stumbling block in the way of utilitarianism. The entire issue here is confused by an ambiguity in terms that has been already noticed: pleasure and pleasures have not the same connotation. By a pleasure or pleasures we mean some assignable presentation or presentations experienced as pleasant, i.e. as affording pleasure; by pleasure simply is meant this subjective state of feeling itself. The former, like other objects of knowledge, admit of classification and comparison: we may distinguish them as coarse or as noble, or, if we will, as cheap and wholesome. But while the causes of feeling are manifold, the feeling itself is a subjective state, varying only in intensity and duration. The best evidence of this lies in the general character of the actions that ensue through feeling—the matter which has next to engage us. Whatever be the variety in the sources of pleasure, whatever be the moral or conventional estimate of their worthiness, if a given state of consciousness is pleasant we seek so far to retain it, if painful to be rid of it: we prefer greater pleasure before less, less pain before greater. This is, in fact, the whole meaning of preference as a psychological term. Wisdom and folly each prefer the course which the other rejects. Both courses cannot, indeed, be objectively preferable; that, however, is not a matter for psychology. But as soon as reflection begins, exceptions to this primary principle of action seem to arise continually, even though we regard the individual as a law to himself. Such exceptions, however, we may presently find to be apparent only. At any rate the principle is obviously true before reflection begins so long as we are dealing with actually present sources of feeling, and not with their, re-presentations. But to admit this is psychologically to admit everything, at least if experience is to be genetically explained. Assuming then that we start with only quantitative variations of feeling, we have to attempt to explain the development of formal and qualitative differences in the character given to the grounds of feeling. But, if aversions and pursuits result from incommensurable states of pain and pleasure, there seems no other way of saving the unity and continuity of the subject except by speculative assumption—the doctrine known as the freedom of the will in its extremest form. The one position involves the other, and the more scientific course is to avoid both as far as we can.

The question, then, is: How, if action depends in the last resort on a merely quantitative difference, could it ever come about that what we call the higher sources of feeling should supersede the lower? If it is only quantity that turns the scales, where does quality come in, for we cannot say, e.g. that the astronomer experiences a greater thrill

of delight when a new planet rewards his search than the hungry savage in finding a clump of pig-nuts? Tern pora mute ntur nos et nrtamur in illis contains the answer in brief. We shall understand this answer better if we look at a parallel case, or what is really our own from another point of view. We distinguish between higher and lower forms of life: we might say there is more life in a large oyster than in a small one, other things being equal, but we should regard a crab as possessing not necessarily more life as measured by waste of tissue but certainly as manifesting life in a higher form. How, in the evolution of the animal kingdom, do we suppose this advance to have been made? The tendency at any one moment is simply towards more life, simply towards growth; but this process of self-conservation imperceptibly but steadily modifies the self that is conserved. The creature is bent only on filling its skin; but in doing this as easily as may be it gets a better skin to fill, and accordingly seeks to fill it differently. Though cabbage and honey are what they were before, they have changed relatively to the grub now it has become a butterfly. So, while we are all along preferring a more pleasurable state of consciousness before a less, the content of our consciousness is continually changing; the greater pleasure still outweighs the less, but the pleasures to be weighed are either wholly different, or at least are the same for us no more. What we require then, is not that the higher pleasures shall always afford greater pleasure than the lower did, but that to advance to the level of life on which pleasure is derived from higher objects shall on the whole be more pleasurable and less painful than to remain behind. And this condition seems provided in the fact of accommodation above referred to and in the important fact that attention can be more effectively expended by what we may therefore call improvements in the form of the field of consciousness. But when all is said and done a certain repugnance is apt to arise against any association of the differences between the higher and lower feelings with differences of quantity. Yet such repugnance is but another outcome of the common mistake of supposing that the real is obtained by pulling to pieces rather than by building up. No logical analysis nay, further, no logical synthesis adequate to the fullness of things. For the rest, such aversion is wholly emotional, and has no more an intellectual element in it than has the disgust we feel on first witnessing anatomical dissections.¹

Emotion and Emotional Expression.

34. We now pass from the causes of feeling to its effects. We have assumed (~ 7) that the simplest and earliest of these effects are to be found in the various bodily movements commonly described as the expression or manifestation of emotion. But in a notorious article, entitled *What is an Emotion?* Professor James attempted to turn this, the common-sense position, upside down. Before proceeding we must, therefore, examine his alternative theory: Common sense says: we lose our fortune, are sorry and weep; we meet a bear, are frightened and run; we are insulted by a rival, are angry and strike. But, Professor James continues, the hypothesis here to be defended says that this order of sequence is incorrect: that the one mental state is not immediately induced by the other, that the bodily manifestations must first be interposed between, and that the more rational statement is that we feel sorry because we cry, angry because we strike, afraid because we tremble, and not that we cry, strike or tremble because we are sorry, angry or fearful, as the case may be. In a word, whereas it is commonly supposed that the emotion precedes and produces the expression, it seems here to be maintained that the expression precedes and produces the emotion. But the sequence denied in the first case is a psychological sequence, the sequence maintained in the second is a physiological sequence. The subjects experiences of the bodily expressions is here the emotion, and these are physically, not psychically, determined.

They are sensational processes, says Professor James; processes due to inward currents set up by physical happenings.

The new theory is, then, in part psychological, in part psychophysical. As to the first part, which the author calls the vital point of the whole theory, it consists mainly in exposing the ambiguity of the phrase bodily expression of an emotion a phrase which is liable to mislead us into fancying that To look at anything in its elements makes it appear inferior to what it seems as a whole. Resolve the statue or the building into stone and the laws of proportion, and no worthy causes of the former beautiful result seem now left behind. So, also, resolve a virtuous act into the passions and some quantitative law, and it seems to be rather destroyed than analysed, though after all what was there else it

could be resolved into? Sir A. Grant, *Aristotles Ethics*, Essay IV., *The Doctrine of the Mean*, i. 210 (2nd ed).

2 *Mind* (1884), ix. 188 sqq.; and, again, *Principles of Psychology* ch. xxv. Very similar views were advanced independently and almost at the same time by the Danish physiologist C. Lange hence the name James-Lange theory, by which their views are commonly known. Of Langes work a German translation was published in 1887.

emotion, like thought, may be antecedent to, or independent of, any expression or utterance. My fear or anger may chance to be expressive to another, but they are of necessity impressive to me. A disembodied human emotion is a sheer nonentity. In so far as I have a certain emotion, in so far I have the feelings of its bodily symptoms. This is true, not to say trite; but, how do these symptoms arise? With this question we pass to the psychophysical side of the theory, and here it becomes perplexing, and is itself perplexed; for to this question it is driven to return. two distinct and divergent answers. First, we are told that it is not the emotion that gives rise to the bodily expression, but that, on the contrary, the bodily changes follow directly the perception of the existing fact, it being beyond doubt that objects do excite bodily changes by a preorganised mechanism. Again.: Each emotion is, for Professor James, a resultant of a sum of elements, and each element is caused by a physiological process of a sort already well known. The elements are all organic changes, and each of them is the reflex effect of the existing object. The old attempts at classification and description being contemptuously dismissed as belonging only to the lowest stage of science, we are informed that now we step from a superficial to a deep order of inquiry. The questions now are causal:

Just what changes does this object and what changes does that object excite? and How come they to excite these particular changes, and not others? But we have not had time to wait for the James-Lange theory to raise these questions, and surely there are none that bring out its defects more glaringly. Objects that determine bodily changes by means of preorganized mechanism and without psychical interposition might fairly be taken to be physical objects; and indeed the whole process is expressly described as reflex. But only very slovenly physiologists talk of objects exciting reflexes:

it is inexact even. to say that sensations do so. All that reflex action requires is a stimulus. The essence of a reflex action, says Foster, consists in the transmutation, by means of the irritable protoplasm of a nerve-cell, of afferent into efferent impulses. Let Professor James be confronted first by a chained bear and next by a bear at large: to the one object he presents a bun, and to the other a clean pair of heels; or let him first be thrilled by a Beethoven symphony and then by a Raphael Madonna. Will he now undertake to account, in terms of stimuli and their reflex effects, for the very different results of the similar causes in the one case, or for the similar results of the very different causes in the other? Such a challenge would certainly be declined, and Professor James would remind us that in his nomenclature it is the total situation on which the reaction of the subject is made. But there is just a world of difference between object stimulus transformed by preorganised mechanism into an efferent discharge, and object = total situation to which the subject reacts. The attempt to explain emotion causally on the lines of the former meaning lands us in the conscious automaton theory, with which we must deal presently: this Professor James rejects. The latter meaning, on the other hand, involves the recognition of the subjects attitude as essential to the reaction, and of this as determined by pleasure, pain or by some interest resting ultimately on these. Such, with scarcely an exception; has always been, and still remains, the analysis of emotion in vogue among psychologists. It brings to the fore a new category, that of worth or value, one wholly extraneous to the physiologists domain, and repugnant to the mechanical analogies which are there in place. No doubt such a concept is attained only by reflexion, but the experiences from which it is drawn, the affective states and the conative tendencies of the subject experiencing, must have preceded. From this central standpoint alone the objective situation has a worth which explains the subjects attitude, and here alone can we find the clue which will enable us to answer the questions of cause that Professor James propounds.

The experimental investigations of Mosso, Fr, Lehmann, and others have shown that the vaso-motor and such like bodily changes as are prominent in emotional excitement are present also to some extent in all forms of conscious activity. The more unwonted and interesting the situation, the more diffused movements predominate over movements that are purposive; the further assimilation, both on the cognitive and the reactive side, has advanced, the

more diffusion is replaced by restriction and adaptation. But we are not warranted in separating these factors of voluntary activity into distinct processes, as the physiologist, for example, separates the functions of striped and unstriped muscle. Unless we are prepared to treat all activity as reflexes the physiologist may quite well do, if he keep strictly to his own point of view it does not seem possible to regard emotional expression as so much organic sensation with which purposive movement has nothing to do. No doubt this connection of vegetal and animal functions remains one of the obscurest in all psycho-biology, though its teleological fitness is obvious enough.

Nevertheless, Professor James's main position is that an emotion is but a sum of organic sensations; and in order to establish this he is led to the second and very different statement which we have now to examine. Here, so far from suggesting inquiries as to the objects that excite emotion, his point is to maintain that in so far as the bodily cause is set up, be the means what they may, in so far the emotion is present. And here, at length, the contention is explicit: Emotions are a certain complex of organic sensations, and such complexes are emotions: the two are not merely coexistent, they are identical. The exciting object is thus, after all, physiological; that is to say, it is whatever stimulus sets up the sensations. It cannot be psychological, the total situation for the reacting subject, for in this sense the emotion, it is maintained, may be objectless. In support of his position Professor James first of all cites pathological cases of such objectless emotion. He next follows up these with accounts of other cases in which emotional apathy seemed to keep pace with sensory anaesthesia, arguing that, according to his theory, a subject absolutely anaesthetic should also be incapable of emotion, although emotion-inspiring objects might evoke the usual bodily expression from him. Whether any testimony from lunatics, hypnotics and other minds diseased could suffice to establish this novel doctrine is questionable:

that the evidence so far adduced is insufficient, Professor James himself seems to allow. There are some four or five of the apathetic cases altogether: three of them are regarded by the mental pathologists who describe them as adverse to Professor James's theory.ⁱ Of the fourth case, reported by a pathologist on Professor James's side, the latter himself candidly observes, We must remember that the patient's inemotivity may have been a co-ordinate result with the anaesthesia of his neural lesions, and not the anaesthesia's mere effect. This missing link in the argument is supplied by the experiments of Professor Sherrington,^f and these show conclusively that normal emotional states are possible along with complete visceral anaesthesia. As to emotional excitement induced by intoxication or disease, and so far groundless, the most that can safely be said is that the object may be vague, ill-defined and shifting, but not that it is absent altogether. States of physical exaltation, depression or irritability readily aroused by association appropriate troupes of imagery; only when they fail of this are we entitled to say that there is no object, and then we must add that there is also no emotion.

- Emotional and Conative Action.

35. As in dealing with the causes of feeling, so we may now in like manner proceed to inquire whether in its manifestations or effects there is any contrast corresponding to the opposing extremes of pleasure and pain. We have already seen reasons for dismissing reflex movements or movements not determined by feeling as psychologically secondary, the effects of habit and heredity, and for regarding those diffusive movements that are immediately expressive of feeling as primordial such movements as are strictly purposive being gradually selected or elaborated from them. But some distinction is called for among the various movements expressive of emotion; for there is more in these than the direct effect of feeling regarded as merely pleasure or pain. It has been usual with psychologists to confound emotions with feeling, because intense feeling is essential to emotion. But, strictly 2 G. H. J. Berkley, *Two Cases of General Cutaneous and Sensory Anaesthesia without marked Psychological Implications*, *Brain* (1891),

Xiv. 441 sqq.

Experiments on the Value of Vascular and Visceral Factors for the Genesis of Emotion, *Proc. Roy. Soc.* (1900), lxvi. 390 sqq.; and *Nature*, lxii. 328 sqq.

speaking, a state of emotion is a complete state of mind, a psychosis, and not a psychical element, if we may so say. Thus in anger we have over and above pain a more or less definite object as its cause, and a certain characteristic reactive display frowns, compressed lips, erect head, clenched fists, in a word, the combative attitude as its effect, and

similarly of other emotions; so that generally in the particular movements indicative of particular emotions the primary and primitive effects of feeling are overlaid by what Darwin has called serviceable associated habits. The purposive actions of an earlier stage of development become, though somewhat atrophied as it were, the emotive outlet of a later stage: in the circumstances in which our ancestors worried their enemies we only show our teeth. We must, therefore, leave aside the more complex emotional manifestations and look only to the simplest effects of pleasure and of pain, if we are to discover any fundamental contrast between them.⁴

Joy finds expression in dancing, clapping the hands and meaningless laughter, and these actions are not only pleasurable in themselves but such as increase the existing Emotional pleasure. Attention is not drafted off or diverted; Expression but rather the available resources seem reinforced, so that the old expenditure is supported as well as the new. To the pleasure on the receptive side is added pleasure on the active side. The violent contortions due to pain, on the other hand, are painful in themselves, though less intense than the pains from which they withdraw attention; they are but counter-irritants that arrest or inhibit still more painful thoughts or sensations. Thus, according to Darwin, sailors who are to be flogged sometimes take a piece of lead into their mouths in order to bite it with their utmost force, and thus to bear the pain. When in this way we take account of the immediate effects as well as of the causes of feeling, we find it still more strikingly true that only in pleasurable states is there an efficient expenditure of attention. It is needless now to dwell upon this point, although any earlier mention of it would hardly have been in place. But we should fail to realize the contrast between the motor effects of pleasure and of pain if we merely regarded them as cases of diffusion. The intenser the feeling the intenser the reaction, no doubt, whether it be smiles or tears, jumping for joy, or writhing in agony; but in the movements consequent on pleasure the diffusion is the result of mere exuberance, an overflow of good spirits, as we sometimes say, and these movements, as already remarked, are always comparatively purposeless or playful. Even the earliest expressions of pain, on the contrary, seem but so many efforts to escape from the cause of it; in them there is at least the blind purpose to flee from a definite ill, but in pleasure only the enjoyment of present fortune.

From Plato downwards psychologists and moralists have been fond of discussing the relation of pleasure and pain. It has been maintained that pain is the first and more fundamental fact, and pleasure nothing but relief from pain; and, again, on the other side, that pleasure is prior and positive, and pain only the negation of pleasure. So far as the mere change goes, it is obviously true that the diminution of pain is pro tanto pleasant, and the diminution of pleasure pro tanto unpleasant; and if relativity had the unlimited range sometimes assigned to it this would be all we could say. But we must sooner or later recognize the existence of a comparatively fixed neutral state, deviations from which, of comparatively short duration and of sufficient intensity, constitute distinct states of pleasure or pain. Such states, if not of liminal intensity, may then be further diminished without reversing ~ Of the three principles Darwin advances in explanation of emotional expression that which he places last perhaps because it admits of less definite illustration seems both psychologically and physiologically more fundamental than the more striking principle of serviceable associated habits which he places first; indeed the following, which is his statement of it, implies as much: Certain actions which we recognize as expressive of certain states of mind are the direct result of the constitution of the nervous system, and have been from the first independent of the will, and to a large extent of habit (*Expression of the Emotions*, p. 66). It is in illustration of this principle too that Darwin describes the movements expressive of joy and grief, emotions which in some form or other are surely the most primitive of any.

their pleasurable or painful character. The turning-point here implied may, of course, gradually change too as a result, in fact, of the law of accommodation. Thus a long run of pleasure would raise the hedonic zero, while to the small extent to which accommodation to pain is possible a continuance of pain would lower it. But such admission makes no material difference where the actual feeling of the moment is alone concerned and retrospect out of the question. On the whole it seems, therefore, most reasonable to regard pleasure and pain as emerging out of a neutral state, which is prior to and distinct from both not a state of absolute indifference, but of simple contentment, marked by no special active display. But it is by reference to such state of equilibrium or Tashiro's *taisho* that we see most clearly the superior volitional efficacy of pain upon which pessimists love to descant. Nobody, says Von Hartmann, who had to choose between no taste at all for ten minutes or five minutes of a pleasant taste and then five minutes of an

unpleasant taste, would prefer the last. Most men and all the lower animals are content to let well alone.

To ascertain the origin and progress of purposive action it seems, then, that we must look to the effects of pain rather than to those of pleasure. It is true that psychologists not infrequently describe the earliest purposive movements as appetitive; or at least they treat appetitive and aversive movements as co-ordinate and equally primitive, pleasures being supposed to lead to actions for their continuance as much as pains to actions for their removal. No doubt, as soon as the connection between a pleasurable sensation and the appropriate action is completely established, as in the case of imbibing food, the whole process is then self-sustaining till satiety begins. But the point is that such facility was first acquired under the teaching of pain—the pain of unsatisfied hunger. The term appetite is apt both by its etymology and its later associations to be misleading. What are properly called the instinctive appetites are when regarded from their active side movements determined by some existing uneasy sensation. So far as their earliest manifestation in a particular individual is concerned, this urgency seems almost entirely of the nature of a *vise a tergo*; and the movements are only more definite than those simply expressive of pain because of inherited pre-adaptation, on which account, of course, they are called instinctive. But what one inherits another must have acquired, and we have agreed here to leave heredity on one side and consider only the original evolution.

But if none but psychological causes were at work this evolution would be very long and in its early stages very uncertain. At first, when only random movements ensue, we may fairly suppose both that the chance of at once making a happy hit would be small and that the number of chances, the space for repentance, would also be small. Under such circumstances natural selection would have to do almost everything and subjective selection almost nothing. So far as natural selection worked, we should have, not the individual subject making a series of tries and perfecting itself by practice, as in learning to dance or swim, but we should have those individuals whose structure happened to vary for the better surviving, increasing and displacing the rest. How much natural selection, apparently unaided, can accomplish in the way of complicated adjustment we see in the adaptation of the form and color of plants and animals to their environment. Both factors, in reality, operate at once, and it would be hard to fix a limit to either, though to our minds natural selection seems to lose in comparative importance as we advance towards the higher stages of life.

But psychologically we have primarily to consider subjective selection, i.e. first of all, the association of particular movements with particular sensations through the mediation of feeling. The sensations here concerned are mainly painful excitations from the environment, the recurring pains of innutrition, weariness, &c., and pleasurable sensations due to the satisfaction of these organic wants—pleasures which, although not a mere filling-up, as Plato at one time contended, are still preceded by pain, but imply over and above the removal of this a certain surplus of positive good. There seem only a few points to notice. (a) When the movements that ensue through pleasure are themselves pleasurable there is ordinarily no ground for singling out any one; such movements simply enhance the general enjoyment, which is complete in itself and so far contains no hint of anything beyond. (b) Should one of these spontaneous movements of pleasure chance to cause pain, no doubt such movement is speedily arrested. Probably the most immediate connection possible between feeling and purposive action is that in which a painful movement leads through pain to its own suppression. But such connection is not very fruitful of consequences, inasmuch as it only secures what we may call internal training and does little to extend the relation of the individual to its environment. (c) Out of the irregular, often conflicting movements which indirectly relieve pain some one may chance to remove the cause of it altogether. Upon this movement, the last of a tentative series, attention, released from the pain, is concentrated; and in this way the evil and the remedy become so far associated that on a recurrence of the former the many diffused movements become less, and the one purposive movement more, pronounced; the one effectual way is at length established and the others, which were but palliatives, disappear. (d) When things have advanced so far that some one definite movement is definitely represented along with the painful sensation it remedies, it is not long before a still further advance is possible and we have preventive movements. Thanks to the orderliness of things, dangers have their premonitions. After a time, therefore, the occurrence of some signal sensation revives the image of the harm that has previously followed in its wake, and a movement either like the first,

or another that has to be selected from the random tries of fear occurs in time to avert the impending ill. (e) In like manner, provided the cravings of appetite are felt, any signs of the presence of pleasurable objects prompt to movements for their enjoyment or appropriation. In these last cases we have action determined by percepts. The cases in which the subject is incited to action by ideas as distinct from percept require a more detailed consideration; such are the facts mainly covered by the term desire.

By the time that ideas are sufficiently self-sustaining to form trains that are not wholly shaped by the circumstances of the present, entirely new possibilities of action are Desire opened up. We can desire to live again through experiences of which there is nothing actually present to remind us, and we can desire a new experience which as yet we only imagine. We often, no doubt, apply the term to the simpler states mentioned under (e) in the last paragraph:

the fox in the fable is said to have desired the grapes he vilified because out of his reach. Again, at the other extreme it is usual to speak of a desire for honor, or for wealth, and the like; but such are not so much single states of mind as inclinations or habitual desires. Moreover, abstractions of this kind belong to a more advanced stage of development than that at which desire begins, and of necessity imply more complicated grounds of action than we can at present examine. The essential characteristics of desire will be more apparent if we suppose a case somewhere between these extremes. A busy man reads a novel at the close of the day, and finds himself led off by a reference to angling or tropical scenery to picture himself with his rods packed en route for Scotland, or booked by the next steamer for the fairyland of the West Indies. Presently, while the ideas of Jamaica or fishing are at least as vividly imagined as before, the fancied preparations receive a rude shock as the thought of his work recurs. Some such case we may take as typical and attempt to analyse it.

First of all it is obviously true, at least of such more concrete desires, that what awakens desire at one time fails to do so at another, and that we are often so absorbed or content with the present as not to be amenable to (new) desires at all. A given x or y cannot, then, be called desirable per Se, it is only desirable by relation to the contents of consciousness at the moment. Of what nature is this relation? (1) At the level of psychical life that we have now reached very close and complete connections have been formed between ideas and the movements necessary for their realization, so that when the idea is vividly present these movements are apt to be nascent. This association is the result of subjective selection, i.e. of feeling but being once established, it persists like other associations independently of it. (2) Those movements are especially apt to become nascent which have not been recently executed, which are therefore fresh and accompanied by the organic sensations of freshness, but also those which are frequently executed, and so from habit readily aroused. The latter fact, which chiefly concerns habitual desires, may be left aside for a time. (3) At times, then, when there is a lack of present interests, or when these have begun to wane, or when there is positive pain, attention is ready to fasten on any new suggestion that calls for more activity, requires a change of active attitude, or promises relief. Such spontaneous concentration of attention ensures greater vividness to the new idea, whatever it be, and to its belongings. In some cases this greater vividness may suffice. This is most likely to happen when the new idea affords intellectual occupation, and this is at the time congenial, or with indolent and imaginative persons who prefer dreaming to doing. (4) But when the new idea does not lead off the pent-up stream of action by opening out fresh channels, when, instead of this, it is one that keeps them intent upon itself in an attitude comparable to expectation, then we have desire. In such a state the intensity of the re-presentation is not adequate to the intensity of the incipient actions it has aroused. This is most obvious when the latter are directed towards sensations or percepts, and the former remains only an idea. If it were possible by concentrating attention to convert ideas into perc~pts, there would be an end of most desires: if wishes were horses beggars would ride. (5) But our voluntary power over movements is in general of this kind: here the fiat may become fact. When we cannot hear we can at least listen, and, though there be nothing to fill them, we can at least hold out our hands. It would seem, then, that the source of desire lies essentially in this excess of the active reaction above the intensity of the re-presentation (the one constituting the impulse, the other the object of desire, or the desideratum), and that this disparity rests ultimately on the fact that movements have, and sensations have not, a subjective initiative.

(6) The impulse or striving to act will, as already hinted, be stronger the greater the available energy, the fewer the present outlets, and, habits apart, the fresher the new opening for activity. (7) Finally, it is to be noted that, when such inchoate action can be at once consummated, desire ends where it begins: to constitute a definite state of desire there must be not only an obstacle to the realization of the desideratum if this were all we should rather call the state one of wishing—but an obstacle to its realization by means of the actions its representation has aroused.

However the desire may have been called forth, its intensity is primarily identical with the strength of this impulse to action, Relation of and has no definite or constant relation to the amount Desire to of pleasure that may result from its satisfaction.

Feeling. The feeling directly consequent on desire as a state of want and restraint is one of pain, and the reaction which this pain sets up may either suppress the desire or prompt to efforts to avoid or overcome the obstacles in its way. To inquire into these alternatives would lead us into the higher phases of voluntary action; but we must first consider the relation of desire to feeling more closely.

Instances are by no means wanting of very imperious desires accompanied by the clear knowledge that their gratification will be positively distasteful. On the other hand it is possible to recollect or picture circumstances known or believed to be intensely pleasurable without any desire for them being awakened at all: we can regret or admire without desiring. Yet there are many psychologists who maintain that desire is excited only by the prospect of the pleasure that may arise through its gratification, and that the strength of the desire is proportional to the intensity of the pleasure thus anticipated.

1 As such an instance may be cited Platos story of Leontius, the son of Aglaeon, in Rep. iv. 439 fin.

Quid quid petitur petitur sub specie boni is their main formula. The plausibility of this doctrine rests partly upon a seemingly imperfect analysis of what strictly pertains to desire and partly on the fact that it is substantially true both of what we may call presentation-prompted action, which belongs to an earlier stage than desire, and of the more or less rational action that comes later. In the very moment of enjoyment it may be fairly supposed that action is sustained solely by the pleasure received and is proportional to the intensity of that pleasure. But there is here no re-presentation and no seeking; the conditions essential to desire, therefore, do not apply. Again, in rational action, where both are present, it may be true to quote the words of an able advocate of the view here controverted that our character as rational beings is to desire everything exactly according to its pleasure value.² But consider what such conceptions as the good, pleasure value and rational action involve. Here we have foresight and calculation, regard for self as an object of permanent interest Butlers cool self-love; but desire as such is blind, without either the present certainty of sense or the assured prevision of reason. Pleasure in the past, no doubt, has usually brought about the association between the representation of the desired object and the movement for its realization; but neither the recollection of this pleasure nor its anticipation is necessary to desire, and even when present they do not determine what urgency it will have. The best proof of this lies in certain habitual desires. Pleasures are diminished by repetition, whilst habits are strengthened by it; if the intensity of desire, therefore, were proportioned to the pleasure value of its gratification, the desire for renewed gratification should diminish as this pleasure grows less; but, if the present pain of restraint from actkmn determines the intensity of desire, this should increase as the action becomes habitual. And observation seems to show that, unless prudence suggests the forcible suppression of such belated desires or the active energies themselves fail, they do in fact become more imperious, although less productive of positive pleasure, as time goes on.

In this there is, of course, no exception to the general principle that action is consequent on feeling a greater pleasure being preferred before a less, a less pain before a greater; for, though the feeling that follows upon its satisfaction be less or even change entirely, still the pain of the unsatisfied desire increases as the desire hardens into habit. It is also a point in favor of the position here taken that appetites, which may be compared to inherited desires, certainly prompt to action by present pain rather than by prospective pleasure.

Intellection.

36. Desire naturally prompts to the search for the means to its satisfaction and frequently to a mental rehearsal of various possible courses of action, their advantages and disadvantages. Thus, by the time the ideational continuum has become mainly by the comparatively passive working of associations sufficiently developed to furnish free ideas as thinking material, motives are forthcoming for thinking to begin. It is obviously impossible to assign any precise time for this advance; like all others, it is gradual. Fitfully, in strange circumstances and under strong excitement, the lower animals give unmistakable signs that they can understand and reason. But thought as a permanent activity may be fairly said to originate in and even to depend upon the acquisition of speech. This indispensable instrument, which more than anything else enables our psychological individual to advance to the distinctly human or rational stage, consists of gestures and vocal utterances, which were originally and, indeed, are still to a large extent emotional expressions. Our space will only allow us to note in what it must be noted that, though we still retain our psychological standpoint, the higher development of the individual is only possible through intercourse with other individuals, that is to say, through society. Without language we should be mutually exclusive and impenetrable, like so many physical atoms; with it each several mind may transcend its own limits and share the minds of others. As a way language when it already exists, is instrumental in the development as distinct from the communication of thought. But first of all, what in general is thinking, of which language is the instrument?

In entering upon this inquiry we are really passing one of the hardest and fastest lines of the old psychology that between sense and understanding. So long as it was the fashion to assume a multiplicity of faculties the need was less felt for a clear exposition of their connection. A man had senses and intellect much as he had eyes and ears; under the heterogeneity in the one case was no more puzzling flag than in the other. But for psychologists who do not cut the knot in this fashion it is confessedly a hard matter to explain the relation of the two. The contrast of receptivity and activity hardly avails, for all presentation involves activity and essentially the same activity, that of attention. Nor can we well maintain that the presentations attended to differ in kind, albeit such a view has been held from Plato downwards. *Nihil est in intellectu quod non fuerit prius in sensu*: the blind and deaf are necessarily without some concepts that we possess. If pure being is pure nothing, pure thought is equally empty. Thought consists of a certain elaboration of sensory and motor presentations and has no content apart from these. We cannot even say that the forms of this elaboration are psychologically a priori; on the contrary, what is epistemologically the most fundamental is the last to be psychologically realized. This is not only true as a fact; it is also true of necessity, in so far as the formation of more concrete concepts is an essential preliminary to the formation of others more abstract those most abstract, like the Kantian categories, &c., being thus the last of all to be thought out or understood. And though this formative work is substantially voluntary, yet, if we enter upon it, the form at each step is determined by the so-called matter, and not by us; in this respect the spontaneity of thought is not really freer than the receptivity of sense. It is sometimes said that thought is synthetic, and this is true; but imagination is synthetic also; and the processes which yield the ideational train are the only processes at work in intellectual synthesis. Moreover, it would be arbitrary to say at what point the mere generic image ceases and the true concept begins so continuous are the two. No wonder, therefore, that English psychology has been prone to regard thought as only a special kind of perception perceiving the agreement or disagreement of ideas and the ideas themselves as mainly the products of association. Yet this is much like confounding observation with experiment or invention the act of a cave-man in betaking himself to a drifting tree with that of Noah in building himself an ark. In reverie, and even in understanding the communications of others, we are comparatively passive spectators of ideational movements, non-voluntarily determined. But in thinking or intellection, as it has been conveniently termed, there is always a search for something more or less vaguely conceived, for a clue which will be known when it occurs by seeming to satisfy certain conditions. Thinking may be broadly described as solving a problem finding an AX that is B. In so doing we start from a comparatively fixed central idea or intuition and work along the several diverging lines of ideas associated with it hence far the aptest and in fact the oldest description of thought is that it is discursive. Emotional excitement and at the outset the natural man does not think much in cold blood quickens the flow of ideas: what seems relevant is at once contemplated more closely, while what seems irrelevant awakens little interest and receives little attention. At first the control acquired is but very imperfect; the actual course of thought of

even a disciplined mind falls far short of the clearness, distinctness, and coherence of the logicians ideal. Familiar associations are apt to hRrry attention away from the proper topic, so that thought herd of individuals mankind would have a natural history as other animals have; but personality can only emerge out of intercourse with persons, and of such intercourse language is the means. But important as is this addition of a transparent and responsive, world of minds to the dead opaqueness of external things, the development of our psychological individual still remains a purely individual development. The only new point isand it is of the highest importance to keep it in sightthat the materials of this development no longer consist exclusively of presentations elaborated by a single mind in accordance with psychical laws. Nevertheless that combination of individual experiences which converts subjective idiosyncrasy and isolation into the objectivity and solidarity of Universal Mind only affects the individual in accordance with psychical laws, and we have no need therefore to overstep our proper domain in studying the advance from the non-rational phase to the phase of reason.

i Locke, so often misrepresented, expressed this truth according to his lights in the following: The earth will not appear painted with flowers nor the fields covered with verdure whenever we have a mind to it.. -. Just thus is it with our understanding: all that is voluntary in our knowledge is the employing or withholding any of our faculties from this or that sort of objects and a more or less accurate survey of them (Essay, iv. 13, 2).

becomes not only discursive but wandering; in place of concepts of fixed and crystalline completeness, such as logic describes, we may find a congeries of ideas but imperfectly compacted into one. generic idea, subject to continual transformation and implicating much that is irrelevant and confusing.

Thus, while it is possible for thought to begin without language, just as arts may begin without tools, yet language enables us to carry the same process enormously farther. In the first place it gives us an increased command of even such comparatively concrete generic images as can. be formed without it. The name of a thing or action becomes, for one who knows the name, as much an objective mark or attribute as any quality whatever can be. The form and color of what we call an orange are perhaps even more intimately combined with the sound and utterance of this word than with the taste and fragrance which we regard as strictly essential to the thing. But, whereas its essential attributes often evade us, we can always command its nominal attribute, in. so far as this depends upon. movements of articulation. By uttering the name (Or hearing it uttered) we have secured to us, in a greater or less degree, that superior vividness and definiteness that pertain. to images reinstated by impressions: our idea approximates to the fixity and independence of a percept (cf. 21 above). With young children and uncultured mindswho, by the way, not uncommonly think aloud the gain in this respect is probably more striking than those not confined to their mother-tongue or those used to an. analytical handling of language at all realize.¹ When. things are thus made ours by receiving names from us and we can freely manipulate them in. idea, it becomes easier mentally to bring together facts that logically belong together, and so to classify and generalize. For names set us free from the cumbersome tangibility and particularity of perception, which is confined to just what is presented here and now. But as ideas increase in generality they diminish in definiteness and unity; they not only become less pictorial and more schematic, but they become vague and unsteady as well, because formed from a number of concrete images only related as regards one or two constituents, and not assimilated as the several images of the same thing may be. The mental picture answering to the word horse has, so to say, body enough to remain. a steady object when under attention from time to time; but that answering to the word animal is perhaps scarcely twice alike. The relations of things could thus never be readily recalled or steadily controlled if the names of those relations, which as words always remain concrete, did not give us a definite hold upon themmi&e them comprehensible. Once these airy nothings have a name, we reap again the advantages a concrete constituent affords: by its means that which is relevant becomes more closely associated, and that which is irrelevantabstracted fromfalls off. When what answers to the logical connotation or meaning of a concept is in this way linked with the name, it is no longer necessary that such matter or content should be distinctly present in consciousness. It takes time for an image to raise its associates above the threshold; and, when. all are there, there is more demand upon attention in proportion. There is thus a manifest economy in. what Leibnitz happily styled symbolic, in contrast to intuitive thinking. Our power of efficient attention is limited, and with words for counters we can, as Leibnitz remarks, readily perform operations involving

very complex presentations, and wait till these operations are concluded before realizing and spreading out the net result in sterling coin.

But this simile must not mislead us. In actual thinking there never is any complete separation between the symbol and the ideas symbolized: the movements of the one are never entirely suspended till those of the other are complete. Thus, says Hume, if, instead of saying, that in war the weaker have always recourse to negotiation, we should say, that they have always recourse to conquest, the custom which we have acquired of attributing certain relations to ideas still follows the words and makes us immediately perceive the absurdity of that proposition. How intimately the two are connected is shown by the surprises that give what point there is to puns, and by the small confusion that results from the existence of homonymous terms. The question thus arises: What are the properly ideational elements concerned in thought? Over this question psychologists long waged fight as either nominalists or conceptualists. The former maintain that what is imaged in connection with a general concept, such as triangle, is some individual triangle taken in a certain light,¹ while the latter maintain that an abstract idea is formed embodying such constituents of the several particulars as the concept connotes, but dissociated from the specific or accidental variations that distinguish one particular from another. As often happens in such controversies, each side saw the weak point in the other. The nominalists easily showed that there was no distinct abstract idea representable apart from particulars; and the conceptualists could as easily show that a particular presentation considered in a certain light is no longer merely a particular presentation nor yet a mere crowd of presentations. The very thing to ascertain is what this consideration in a certain light implies. Perhaps a speedier end might have been put to this controversy if either party had been driven to define more exactly what was to be understood by image or idea. Such ideas as are possible to us apart from abstraction are, as we have seen, revived percepts, not revived sensations, are complex total re-presentations made up of partial re-presentations, which may figure in other totals (cf. 21). Reproductive imagination is so far but a faint rehearsal of actual percepts, and constructive imagination but a faint anticipation of possible percepts. In either case we are busied with elementary presentations complicated or synthesized to what are tantamount to intuitions, in so far as the forms of intuition remain in the idea, though the fact, as tested by movement, &c., is absent. The several partial re-presentations, however, which make up an idea might also be called ideas, not merely in the wide sense in which every mental object may be so called, but also in the narrower sense as secondary presentations, i.e. as distinguished from primary presentations or impressions. But such isolated images of an impression, even if possible, would no more be intuitions than the mere impression itself would be one: taken alone the one would be as free of space and time as is the other. Till it is settled, therefore, whether the ideational elements concerned in conception are intuitive complexes or something answering to the ultimate elements of these, nothing further can be done.

In the case of what are specially called concrete as distinct from abstract concepts if this rough-and-ready, but unscientific, distinction may be allowed the idea answering to the concept differs little from an intuition, and we have already remarked that the generic image (*Gemeinbild* of German psychologists) constitutes the connecting link between imagination and conception. But even concerning these it is useless to ask what does one imagine in thinking, e.g. of triangle or man or color. We never except for the sake of this very inquiry attempt to fix our minds in this manner upon some isolated concept; in actual thinking ideas are not in consciousness alone and disjointedly, but as part of a context. When the idea man is present, it is present in some proposition or question, as Man is the paragon of animals; In man there is nothing great but mind; and so on. It is quite clear that in understanding or mentally verifying such statements very different constituents out of the whole complex man are prominent in each. Further, what is present to consciousness when a general term is understood will differ, not only with a different context, but also the longer we dwell upon it: we may either analyse its connota

p. 331.

² Cf. Berkeley, *Principles of Human Knowledge*, *Introd.* 16, Hume, *op. cit.* 7.

tion or muster its denotation, as the context or the cast of our minds may determine. Thus what is relevant is alone prominent, and the more summary the attention we bestow the less the full extent and intent of the concept are displayed. To the nominalists objection, that it is impossible to imagine a man without imagining him as either tall or short, young or old, dark or light, and so forth, the conceptualist might reply that at all events percepts may be clear without being distinct, that we can recognize a tree without recognizing what kind of tree it is, and that, moreover, -the objection proves too much: for, if our image is to answer exactly to fact, we must represent not only a tall or a short man, but a man. of definite stature one not merely either light or dark, but of a certain precise complexion. But the true answer rather is that in conceiving as such we do not necessarily imagine a man or a tree at all, any more than if such an illustration may serve in writing the equation to the parabola we necessarily draw a parabola as well.

The individuality of a concept is thus not to be confounded with the sensible concreteness of an intuition either distinct or indistinct, and the pains and skiff which Locke felt were required in order to frame what he called an abstract idea are not comparable to the pains and skill that may be necessary to discriminate or decipher what is faint or fleeting. The material framed consists no doubt of ideas, if by this is meant that in thinking we work ultimately with the ideational continuum, but what results is never a mere intuitive complex nor yet a mere group of such. The concept or abstract idea only emerges when a certain intelligible relation. is established among the members of such a group; and the very same intuition may furnish the material for different concepts as often as a different geistiges Band is drawn between them. The stuff of this bond, as we have seen, is the word, and this brings into the foreground of consciousness - when necessary those elements whether they form an intuition or not which are relevant to the concept. Conception, then, is not identical with imagination, although the two terms are still often, and were once generally, regarded as synonymous. The same ultimate materials occur in each; but in the one they start with and retain a sensible form, in the other they are elaborated into the form which is called intelligible.

37. The distinctive character of this intellectual synthesis lies, we have seen, in the fact that it is determined entirely by what is synthesized whether that be the elementary constituents of intuitions or general relations Character of whatever kind among these. It differs, therefore, and Growth in being selective from the synthesis of association, ~ which rests upon contiguity and unites together ~ whatever occurs together. It differs also from any synthesis, though equally voluntary in its initiation, which is determined by a ~purely subjective preference, since intellection depends upon objective relations alone. Owing to the influence of logic, which has long been in a much more, forward state than psychology, it has been usual to resolve intellection into comparison, abstraction, and classification, after this fashion: ABCM and ABCN are compared, their differences M and N left out of sight, and the class notion ABC formed including both; the same process repeated with ABC and ABD yields a higher class notion AB; and so on. But our ideational continuum is not a mere string of ideas of concrete things, least of all such concrete things as this view implies. Not till our daily life resembles that of a museum porter receiving specimens will Our higher mental activity be comparable to that of the savant who sorts such specimens into cases and compartments. What we perceive is a world of things in continual motion, waxing, waning, the centres of manifold changes, affecting us and apparently affected by each other, amenable to our action and, as it seems, continually interacting among themselves. Even the individual thing, as our analysis of perception has attempted to show, is not a mere sum of properties which, can be taken to pieces and distributed like type, but a whole combined of parts very variously related. To understand intellection we must look at its actual development under the impetus of practical needs, rather than to logical ideals of what it ought to be. Like other forms of purposive activity, thinking is primarily undertaken as a means to an end, and especially the end of economy. It is often easier and always quicker to manipulate ideas than to manipulate real things; to the common mind the thoughtful man is one who uses his head to save his heels. In all the arts of life, in the growth of language and institutions, in scientific explanation, and even in the speculations of philosophy, we may remark a steady simplification in the steps to a given end or conclusion, or what is for our present inquiry the same thing the attainment of better results with the same means. The earliest machines are the most cumbrous and clumsy, the earliest speculations the most fanciful and anthropomorphic. Gradually imitation yields to invention, the natural fallacy of post hoc, ergo propter hoc to methodical induction, till what is essential and effective is realized and appreciated and what is accidental and inert is discarded and falls out

of sight. In this way man advances in the construction of a complete mental clue or master key to the intricacies of the real world, but this key is still the counterpart of the world it enables us to control and explain.

To describe the process by which such insight is attained as a mere matter of abstraction deserves the stigma of soulless blunder which Hegel applied to it. Of course if attention is concentrated on X it must pro tanto be abstracted from Y, and such command of attention may require some pains and skill. But to see in this invariable accompaniment of thinking its essential feature is much like the schoolboys saying that engraving consists in cutting fine shavings out of a hard block. The great thing is to find out what are the light-bearing and fruit-bearing combinations. Moreover, thinking does not begin with a conscious abstraction of attention from recognized differences in the way logicians describe. The actual process of generalization, for the most part at all events, is much simpler. The same name is applied to different things or events because only their more salient features are perceived at all. Their differences, so far from being consciously and with effort left out of account, often cannot be observed when attention is directed to them: to the inexperienced all is gold that glitters. Thus, and as an instance of the principle of progressive differentiation already noted (~ 6), we find genera recognized before species, and the species obtained by adding on differences, not the genus by abstracting from them. Of course such vague and indefinite concepts are not at first logically general: they only become so when certain common elements are consciously noted as pertaining to presentations in other respects qualitatively different, as well as numerically distinct. But actually thinking starts from such more potential generality as is secured by the association of a generic image with a name. So far the material of thought is always generalis freed, that is, from the local and temporal and other defining marks of percepts.

38. The process of thinking, itself is psychologically much better described as (a) an analysis and (2) a re-synthesis of this material already furnished by the ideational trains. The logical resolution of thought into hierarchies of concepts arranged like Porphyry's tree, into judgments uniting such concepts by means of a, logical copula, &c., is the outcome of later reflection mainly for technical purposes upon thought as a completed product and entirely presupposes all that psychology has to explain. The logical theory of the formation of concepts by generalization (or abstraction) and by determination (or concretion) i.e. by the removal or addition of defining marks assumes the previous existence of the very things to be formed, for these marks of attributes Xs and Ys, As and Bs are themselves already concepts. Moreover, the act of generalizing or determining is really an act of judgment, so that the logicians account of conception presupposes judgment, while at the same time his account of judgment presupposes conception. But this is not evil; for logic does not essay to exhibit the actual genesis of thought but only an ideal for future thinking. Psychologically however that is to say, chronologically the judgment is first. The growing mind, we may suppose, passes beyond simple perception when some striking peculiarity in what is at the moment perceived is a bar to its recognition. The stalking hunter is not instantly recognized as the destroying biped, because he crawls on all fours; or the scarecrow looks like him, and yet not like him, for, though it stands on two legs, it never moves. There is thus no immediate assimilation; recognition under such circumstances is in itself a judgment, involving an analysis more or less explicit. But of more account is the further judgment to which it leads, that which connects the new fact with the generic idea. Though actually complex, generic images are not explicitly known as complexes when they first enter into judgments; as the subjects of such judgments they are but starting-points for predication. It crawls; it does not move; and the like. Such impersonal judgments, according to most philologists, are in fact the earliest; and we may reasonably suppose that by means of them our generic images have been partially analysed, and have attained to something of the distinctness and constancy of logical concepts. But the analysis is rarely complete: a certain confused and fluctuating residuum remains behind. The psychological concept merges at sundry points into those cognate with it in other words, the continuity of the underlying memory-train still operates; only the ideal concept of logic is in all respects totus, teres, atque rotundus. Evidence of this, if it seem to any to require proof, is obtainable on all sides, and, if we could recover the first vestiges of thinking, would doubtless be more abundant still.

But, if we agree that it is through acts of judgment which successively resolve composite presentations into elements that concepts first arise, it is still very necessary to inquire more carefully what these elements are. On the one side

we Logkial have seen logicians comparing them to so many letters, Bias in and on the other psychologists enumerating the several ~-gy sensible properties of gold or waxtheir color, weight, texture, &c.

as instances of such elements. In this way formal logic and sensationalist psychology have been but blind leaders of the blind. Language, which has enabled thought to advance to the level at which reflection about thought can begin, is now an obstacle in the way of a thorough analysis of it. A child or savage would speak only of red and hot, but we of redness and heat. They would probably say, Swallows come when the days are lengthening and snipe when they are shortening; we say, Swallows are spring and snipe are winter migrants. Instead of The sun shines and plants grow, we should say, Sunlight is the cause of vegetation. In short, there is a tendency to resolve all concepts into substantive concepts; and the reason of this is not far to seek. Whether the subject or starting-point of our discursive thinking be actually what we perceive as a thing, or whether it be a quality, an action, an effectuation (i.e. a transitive action), a concrete spatial or temporal relation, or finally, a resemblance or difference in these or in other respects, it becomes by the very fact of being the central object of thought pro tanto a unity, and all that can be affirmed Concerning it may so far be regarded as its property or attribute. It is, as we have seen, the characteristic of every completed concept to be a fixed and independent whole, as it were, crystallized out of the still-fluent matrix of ideas. Moreover, the earliest objects of thought and the earliest concepts must naturally be those of the things that live and move about us; hence, thento seek no deepex reason for the presentthis natural tendency, which language by providing distinct names powerfully seconds, to reify or personif not only things but every element and relation of things whic we can single out, or, in other words, to concrete our abstracts.1 It is when things have reached this stage that logic begins. Bul ordinary, so-called formal, logic, which intends to concern itsell not with thinking but only with the most general structure 01 thought, is debarred from recognizing any difference between concepts that does not affect their relations as terms in a pro. position. As a consequence it drifts inevitably into that compartmental logic or logic of extension which knOws nothing of categorie~ or predicables, but only of the one relation of whole and pan qualitatively considered. It thus pushes this reduction to a corn mon denomination to the utmost: its terms, grammatically re garded, are always names and symbolize classes or compartnenti of things. From this point of view all disparity among concepts save that of contradictory exclusion, and all connection, save thai of partial coincidence, are at an end.

Of a piece with this are the logical formula for a simple judgment X is Y, and the corresponding definitions of judgment as the corn parison Qf two concepts and the recognition of their agreement, o disagreement.1 It certainly is possible to represent every judgment as a comparison, although the term is strictly adequate only to judgments of one kind and affords but a very artificial description of others. But for a logic mainly concerned with inference i.e. with explicating what is implicated in any given statements concerning classesthere is nothing more to be done than to ascertain agreements or disagreements; and the existence of these, if not necessarily, is at least most evidently represented by spatial relations. Such representation obviously implies a single ground of comparison only and therefore leaves no room for differences of category. The resolution of all concepts into class concepts and that of all judgments into comparisons thus go together. On this view if a concept is complex it can only be so as a class combination; and, if the mode of its synthesis could be taken account of at all, this could only be by treating it too as an element in the combination like the rest: iron is a substance, &c., virtue a quality, &c., distance a relation, &c., and so on. There is much of directly psychological interest in this thoroughgoing reduction of thought to a form which makes its consistency and logical concatenation conspicuously evident. But of the so-called matter of thought it tells us nothing. And, as said, there are many forms in that matter of at least equal moment, both for psychology and for epistemology:

these formal logic has tended to keep out of sight.

It has generally been under the bias of such a formal or computational logic that psychologists, and especially English psycho logists, have entered upon the study of mind. They have brought with them an analytic scheme which affords a ready place for sensations or simple ideas as the elements of thought, but none for any differences in the combinations of these elements. Sensations being in their very nature concrete, all generality becomes an affair

of names; and, as Sigwart has acutely remarked, sensationalism and nominalism always go together. History would have borne him out if he had added that a purely formal logic tends in like manner to be nominalistic.

If we are still to speak of the elements of thought, we must extend this term so as to include not only the sensory elements we are said to receive but three distinct ways in which this pure matter is combined: (1) the forms of intuition Time and Space (2) the real categories Substance, Attribute, State, Act, Effect, End or Purpose, &c. the exact determination of which is not here in place; and (3) certain formal (logical and mathematical) categories as Unity, Difference, Identity, Likeness. These cannot be obtained by such a process of abstraction and generalization as logicians and psychologists alike have been wont to describe. They are not primarily concepts more general than all others in the sense in which animal is more general than man, but rather distinct methods of relating or synthesizing presentations. Kant, though he accepted almost unquestioned the logic and psychology current in his day, has yet been the occasion, in spite of himself, of materially advancing both, and chiefly by the distinction he was led to make between formal and transcendental logic. In his exposition of the latter he brings to light the difference between the functions of the understanding in synthesizing or, as we might say, organizing percepts into concepts and the merely analytic subsumption of *abc* and *abd* under *a ba*, *b*, *c* and *d* being what they may. Unlike other concepts, categories as such do not in the first instance signify objects of thought, however general, but these functions of the understanding in constituting objects. In fine, they all imply some special process, and the general characteristic of the resulting products is what we have first of all to note Objects of Higher Order: their Analysis and Genesis.

39. By transposing a tune from one key to another we may obtain two entirely diverse aggregates of notes, and yet the melody may remain unchanged. On the other hand, by varying the order of the notes two distinct tunes may result from the same collection of tones. Sense furnishes merely the parts:

whence, then, this identity of the whole in spite of their diversity this diversity of the whole in spite of their identity? From the sameness or difference of the several intervals, it is replied~ But the answer is insufficient; for the tune is a unity, not a mere series, and, further, with every interval the same problem recurs, 1 As to these it must suffice to refer to what has been already said; cf. *Is* and 28.

For the interval, too, is a whole, though a simpler one: it does not necessarily change with a change of its constituents, nor remain the same as long as their distance is unaltered. Feelings and associations, again, cannot account for the result, inasmuch as such accompaniments are not invariably present: moreover, they obviously presuppose the melody instead of producing it. Of such complex wholes or combinations as distinct from mere aggregates or collections there are many forms; as, for example, geometrical figures and patterns, motions and other changes, numbers, logical connections, &c. In view of this variety it seems to strike the unprejudiced as wild to expect that the progress of psychophysics may disclose an explanation of such combinations conforming to the Old scholastic maxim, *Nihil est in Intellectu quod non fuerit prius in sensu*. Yet hopes of such a *generatio aequivoca* are entertained 11 Meanwhile the old psychology, at any rate, is content to regard such complex wholes as new presentations, the products, that is to say, not of a quasi-mechanical interaction of their constituents, but of intellectual synthesis.

What is here said of the combinations whereby the items of an aggregate are construed as parts of a whole holds equally of the comparisons whereby such items are related, as like or unlike, compatible or incompatible. Before either combination or comparison is possible, such items or particulars must be given. But it is conceivable that they should be given and no intellectual synthesis ensue; such a consciousness has been happily named *anoetic*.⁴ Whether or no it actually exists is another matter: it is a conceivable limit, and has the theoretical usefulness of limiting conceptions generally. But relative *anoesis* suffices here. Suppose, then, we have: (a) item, a sound; item, ditto; item, ditto; or (b) item, blue; item, green. The sensationalist, from Hume onwards, has complained that he does not find in the one case a further item: total three; nor in the other a further item: unlikeness. After vainly seeking the living whole among the dead particulars, he next surmises that they generate it by their conjoint action! But whence this notion of action; and how, if such *disiecta membra* suffice, do they so often fail of their effect, so that we cannot

see the wood for the trees? Combinations and comparisons then, we conclude, are not given, but grounded on what is given, and is thus their fundamentum. Hence Meinong, who has studied the psychology of intellection with especial care, has called the new presentations, due to this process of grounding (*Fundiren*), objects of a higher order, or ideal objects. They have validity in respect of the particulars on which they are grounded, but not reality as data existing for perception alongside of such particulars.

The reader will here be reminded of Humes distinction between knowledge and probability. His four philosophical relations, which, depending solely upon ideas, can be the objects of knowledge and certainty—resemblance, continuity, degrees in quality and proportions in quantity or number are objects of higher order and ideal. The other three, which depend not upon the idea, and may be absent or present even while that remains the same—namely, identity, the situations in time and place, and causation are thus obviously not the result of grounding or noesis merely, are not ideal but empirical, and have, that is to say, existential import. In fact, the second of these, the situations, though they imply synthesis in the wider sense in which all complex perception does, do not involve intellectual synthesis at all: are neither ideal combinations nor ideal relations. And since such temporal and spatial situations enter into both the other two—numerical identity and causation—the mixed, a posteriori character of these is obvious. Whatever be the defects of Humes psychology, his classification of relations is so far sound, and its epistemological importance can hardly be overrated. It is accordingly to be regretted that the one vague term relation does not allow us to make these distinctions more precise. The German language, with the two terms *Verhältniss* and *Beziehung*, can do more.

Cf. e.g. F. Schumann, *Zur Psychologie der Zeitanschauung*, *Ztschr. f. Psychologie*, xvii. 130, 136.

G. F. Stout, *Analytic Psychology*, 50 seq.

s A. Meinong, *Ueber Gegenstände höherer Ordnung u.s.w.*, *Ztschr. f. Psychologie* (1899), XXI. 182 sqq. Special mention must be made of an earlier paper by C. v. Ehrenfels (*Ueber Gestaltqualitäten*, *17-ter Jahrschr. f. wissensch. Philosophie*, 1890, pp. 249 sqq.), round which the whole subsequent discussion of this topic centres, Cf., too, Stout, *op. cit.* bk. i. ch. iii.

It will be convenient at this point to digress somewhat for a moment to consider a question of some psychological interest. When we say that two contents are similar, and when too they admit of analysis, we can, if need be, enumerate certain elements as the ground of their partial likeness, and certain others as the ground of their partial diversity. We may further say that, abstracting from these last, we can regard the points of resemblance as constituting a general class to which the two contents belong as specific instances. But how is either comparison or abstraction possible when the two resembling contents appear as simple, and so far unanalysable? Instances, of course, are familiar to every one:

thus we call red and orange colors, and say they resemble each other more than do red and blue. In presence of this question logicians and psychologists are apt to be at loggerheads. The logician maintains that abstraction and resemblance (as distinct from qualitative identity) imply complexity; and surely here he cannot be gainsaid. Yet there are the facts: reds and blues of sorts and a whole scale of degrees of likeness and unlikeness; but no constituent parts, no assignable marks of identity or diversity, are forthcoming, such as we find when we class sugar and salt together as solid or soluble, and pronounce them like in color and unlike in taste. Here the logicians symbols $a+b+c$, $a+b+d$, have their counterparts: therefore the percipients consciousness at all events they have not. We cannot consider and attend to either the sameness or the differences in red and blue, as we can to the like or the unlike properties in salt and sugar. None the less it would be hasty to conclude that colors or any given sensations are simple. We are often struck by the likeness of complex whole to two faces, say long before we can discern the exact points of resemblance. Still, so long as there is no perceptible complexity in the individual presentations there can be no analysis of them, and, therefore, neither abstraction nor comparison based upon it. Can we find elsewhere the complexity that generalization and comparison invariably imply? Though color may be regarded as a general term applicable alike to red, green and blue, just as animal is a general term applicable alike to bird, beast and fish, it is a mistake to infer that the processes are the same because of this similarity in their products. We seem bound to distinguish between consciously logical or noetic processes and processes that are unconsciously logical or hyponoetic, as we may

perhaps call them. In the former the subjective aspect is left aside; in the latter it cannot be. The only common mark we can psychologically assign to colors is that they are all seen, and to tones as the element of notes and noises that they are all heard. So often as we talk of tasting tastes, smelling smells, feeling touches, language leads us to bear witness to this fact. When the sunset red changes to the twilight grey, I still see; but when the thunder follows the lightning there is a double change, though not an absolute one: from seeing I pass to hearing, but I am sentient still. And if progressive differentiation be the order of experience then the universal sentence precedes the differentiations seeing, hearing, &c., and, again, the universal color the differentiations, red, green, blue, &c. Such first universals, then, are not reached by abstraction, but are given in the fundamental continuity of experience, and their subsequent differentiation admits neither of definition nor the classification applicable to discrete complexes, which are the material of logical comparison only. When red is pronounced liker or nearer to yellow than it is to green, this is because a smaller change is experienced in the transition from red to yellow than in that from red to green, and because in the latter yellow is reached and passed before green appears. Proximity and resemblance are, then, so far one and the same; also both are equally relative, admit of the same indefinite gradation, and have the same limit in zero, regarded either as coincidence or identity. The conception of distance between answers, then, to what we have called a hyponoetic relation, and this is plainly distinct from the analysis of discrete complexes, with which, as said, noetic comparison is alone concerned: the one implies and the other excludes the notion of continuity and change a fact which helps still further to distinguish the two.

Categories.

40. We come now to deal with the categories in more detail. To begin with what are par excellence formal categories, Formal and among these with that which is the most fundamental Categories: mental and formal of all How do we come by the (inky, conception of unity? Amongst all the ideas we have, says Locke, as there is none suggested to the mind by more ways, so there is none more simple than that of unity, or one. It has no shadow of variety or composition in it; every object our senses are employed about, every idea in our understandings, every thought of our minds, brings this idea along with it. But to assign a sensible origin to unity is certainly 1 Essay concerning Human Understanding, II. xvi. I.

a mistake one of a class of mistakes already more than once referred to, which consist in transferring to the data, of sense all that is implied in the language necessarily used in speaking of them. The term a sensation no doubt carries along with it the idea of unity, but the bare sensation as received brings along with it nothing but itself. And, if we consider sensory consciousness merely, we do not receive a sensation, and then another sensation, and so on seriatim; but we have always a continuous diversity of sensations even when these are qualitatively sharply differentiated. Moreover, if unity were an impression of sense and passively received, it would, in common with other impressions, be unamenable to change. We cannot see red as blue, but we can resolve many (parts) into one (whole), and vice versa.³ Unity, then, is the result of an act the occasions for which, no doubt, are at first nonvoluntarily determined; but the act is still as distinct from them as is attention from the objects attended to. It is to that movement of attention already described in dealing with ideation (24) that we must look as the source of this category. This same movement, in like manner, yields us temporal signs; and the complex unity formed by a combination of these is what we call number. When there is little or no difference between the field and the focus of attention, unifying is an impossibility, whatever the impressions received may be. On the other hand, as voluntary acts of concentration become more frequent and distinct the variegated continuum of sense is shaped into intuitions of definite things and events. Also, as soon as words facilitate the control of ideas, it becomes possible to single out special aspects and relations of things as the subjects or startingpoints of our discursive thinking. Thus the forms of unity are manifold: every act of intuition or thought, whatever else it is, is an act of unifying.

It is obvious that the whole field of consciousness at any moment can never be actually embraced as one. What is unified becomes thereby the focus of consciousness and so leaves an outlying field; so far unity may be held to imply plurality. But it cannot with propriety be said that in a simple act of attention the field of consciousness is analysed into two distinct parts, i.e. two unities this (now attended to) and the other or the rest (abstracted from). For

the not-this is but the rest of a continuum and not itself a whole; it is left out but not determined, as the bounding space is left out when a figure is drawn. To know two unities we must connect both together; and herein comes to light the difference between the unity which is the form of the concept or subject of discourse and the unity of a judgment. The latter is of necessity complex; the former may or may not be. But in any case the complexity of the two is different. If the subject of thought is not only clear but distinct, i.e. not merely defined as a whole but having its constituents likewise more or less defined, such distinctness is due to previous judgments. At any future time these may of course be repeated; such are the analytical or explicative judgments of logic. As the mere subject of discourse it is, however, a single unity simultaneously apprehended; the relation ascertained between it and its predicate constitutes the unity of judgment, a unity which is comprehended only when its parts are successively apprehended.

But, though a judgment is always a complex unity, the extent of this complexity seems at first sight to vary as the form of synthesis varies. Formal logic, as we have seen, Law of by throwing the form of synthesis into the predicate Dichotomy has no difficulty in reducing every judgment to an or Duality. *S is P*. But, if we at all regard the matter thought, it is certain, for example, that *It is an explosion* is less complex than *The enemy explodes the mine*. The first answers one question; the second answers three. But as regards the more complex judgment both the process of ascertaining the fact and the language in which it is expressed show that the three elements concerned in it are not synthesized at once.

~ We may regard one of the words here printed as one, in that by a definite act we unite a plurality of letters in our image and separate it from its neighbors: we may also regard the one word as many when we attend to the transition from one letter to another and mark each step (Sigwart, *Logic*, ii. 66).

Suppose we start from the explosion and changes or movements are not only apt to attract attention first, but, when recognized as events and not as abstracts personified, they call for some supplementing beyond themselves then in this case we may search for the agent at work or for the object affected, but not for both at once. Moreover, if we find either, a complete judgment at once ensues: *The enemy explodes*, or *The mine is exploded*. The original judgment is really due to a synthesis of these two. But, when the results of former judgments are in this manner taken up into a new judgment, a certain condensation of thought ensues. Of this condensation the grammatical structure of language is evidence, though logical manipulation with great pains obliterates it. Thus our more complex judgment would take the form *The enemy is now mine-exploding* or *The mine is enemy-exploded*, according as one or other of the simpler judgments was made first. An examination of other cases would in like manner tend to show that intellectual synthesis is always in itself and apart from implications a binary synthesis. Wundt, to whom belongs the merit of first explicitly stating this law of dichotomy or duality as the cardinal principle of discursive thinking, contrasts it with synthesis by mere association. This, as running on continuously, he represents thus *A B C D..* ; the synthesis of thought, on the other hand, he symbolizes by forms such as the following:

AB; AB CD; ~E~&c.

Thus, *Socrates is a philosopher*; the philosopher Socrates discovered a method; the philosopher Socrates discovered the dialectical method; &c. The point is that the one thing attended to in an intellectual act is the synthesis of two ideas, and of two ideas only, because, as only one movement of attention is possible at a time, only two ideas at a time can be synthesized. In that merely associative synthesis by which the memory continuum is produced attention moves from *A* to *B* and thence to *C* without any relation between *A* and *B* being attended to at all, although they must have relations, that of sequence e.g. at least.

Difference, says Hume, I consider rather as a negation of relation than anything real or positive. Difference is of two kinds, as opposed either to identity or resemblance. and The first is called a difference of number, the other Likeness, of kind. The truth seems rather to be that difference in Hume's sense of numerical difference² is so far an element in all relations as all imply distinct correlatives. To this extent even identity or at least the recognition of it rests on difference, that form of difference, viz, which is essential to plurality. But absolute difference (i.e. diversity) of kind may be considered tantamount not, indeed, to the negation, but at least to the absence of all formal relation. That this absolute difference or disparateness, as we may call it affords no ground for relations becomes

evident when we consider (1) that, if we had only a plurality of absolutely different presentations, we should have no consciousness at all (cf. II); and (2) that we never compare although we distinguish presentations which seem absolutely or totally disparate, as e.g. a thunderclap and the taste of sugar, or the notion of free trade and that of the Greek accusative. All actual comparison of what is qualitatively different rests upon at least partial likeness. This being understood, it is noteworthy that the recognition of unlikeness is, if anything, more real or positive than that of likeness, and is certainly the simpler of the two. In the comparison of sensible impressions as of two colors, two sounds, the lengths or the directions of two lines, &c. we find it easier in some cases to have the two impressions that are compared presented together, in others to have first one presented and then the other. But, either way, the essential matter is to secure the most effective presentation of their difference, which in every case is something 2 Humes numerical difference, that is to say, is really distinctness, not quantitative difference.

positive and, like any other impression, may vary in amount from bare perceptibility to the extremest distance that the continuum to which it belongs will admit. Where no difference or distance at all is perceptible there we say there is likeness or equality. Is the only outcome, then, that when we pass from *ab* to *ac* there is a change in consciousness, and that when *ab* persists there is none? To say this is to take no account of the operations (we may symbolize them as $ac*ab:c$, $ab*ab:o$) by which the difference or the equality results. The change of presentation (*c*) and absence of change (*0*) are not here what they are as merely passive occurrences, so to put it. This is evident from the fact that in the former there is positive presentation and in the latter no presentation at all. The relation of unlikeness, then, is distinguished from the mere position or fact of change by (1) the voluntary concentration of attention upon *ab* and *ac* with a view to the detection of this change as their difference, and by (2) the act, relating them through it, in that they are judged unlike to that extent. The type of comparison is such superposition of geometrical lines or figures (as, e.g. in Euclid I. iv.): if they coincide we have concrete equality; if they do not their difference is a line or figure. All sensible comparisons conform essentially to this type. In comparing two shades we place them side by side, and passing from one to the other seek to determine not the absolute shade of the second but its shade relative to the first in other words, we look out for contrast. We do not say of one It is dark, for in the scale 01 shades it may be light, but It is darker; or vice versa. Where there is no distance or contrast we simply have not two impressions, and, as said if we consider the difference by itself no impression at all. Two coincident triangles must be perceived as one. The distinction between the one triangle thus formed by two coinciding and the single triangle rests upon something extraneous to this bare presentation of a triangle that is one and the same in both cases. The marks of this numerical distinctness may be various:

they may be different temporal signs, as in reduplications of the memory-continuum; or they may be constituents peculiar to each, from which attention is for the moment abstracted, any one of which suffices to give the common or identical constituent a new setting. In general, it may be said (I) that the numerical distinctness of the related terms is secured in the absence of all qualitative difference solely by the intellectual act which has so unified each as to retain what may serve as an individual mark; and (2) that they become related as like either in virtue of the active adjustment to a change of impression which their partial assimilation defeats, or in virtue of an anticipated continuance of the impression which this assimilation confirms.

It is in keeping with this analysis that we say in common speech that two things in any respect similar are so far the same. This ambiguity in the word same, whereby it Identit means either individual identity or indistinguishable resemblance has been often noticed, and from a logical or objective point of view justly complained of as engendering fallacies in otherwise enlightened understandings. But apparently no one has inquired into its psychological basis, although more than one writer has admitted that the ambiguity is one in itself not always to be avoided.³ It is not enough to trace the confusion to the existence of common names and to cite the forgotten controversies of scholastic realism. We are not now concerned with the conformity of thought to things or with logical analysis, but with the analysis of a psychological process. The tendency to treat presentations as if they were copies of things the objective bias, as we may call it is the one grand obstacle to psychological observation. Some only realize with an effort that the idea of extension is not extended; no wonder, then, if it should seem unnatural to maintain that the idea of two like things does not consist of two like ideas. But, assuming that both meanings of

identity have a psychological justification, it will be well to distinguish them and to examine their connection. Perhaps we might term the one material identity and the other individual identity following the analogy of expressions such as different things but all made of the same stuff, the same person but entirely changed. Thus there is unity and plurality concerned in both, and herein identity or sameness differs from singularity or mere oneness, which so far entails no relation. But the unity and the plurality are different in each, and each is in some sort the converse of the other. In the one, two different individuals partially coincide; in the other, one individual is partially different; the unity in the one case is an individual presentation, in the other is the presentation of an individual.

In material identity the unity is that of a single presentation, whether simple or complex, which enters as a common constituent into two or more others. It may be possible, of course, to individualize it, but as it emerges in a comparison it is a single presentation and nothing more. On account of this absence of individual marks this single presentation is what logicians call abstract; but this is not psychologically essential. It may be a generic image which has resulted from the neutralization of individual marks, but it may equally well be a simple presentation, like red, to which such marks never belonged. We come here from a new side upon a truth which has been already expounded at length, viz, that presentations are not given to us as individuals but as changes in a continuum. Time and space the instruments, as it were, of individualization, which are presupposed in the objective sciences are psychologically later than this mere differentiation.

The many vexed questions that arise concerning individual identity are metaphysical rather than psychological. But it will serve to bring out the difference between the two forms of identity to note that an identification

cannot be established solely by qualitative comparison; an alibi or a breach of temporal continuity will turn the flank of the strongest argument from resemblance. Moreover, resemblance itself may be fatal to identification when the law of being is change.

41. As regards the real categories, it may be said generally that these owe their origin in large measure to the anthropomorphic or mythical tendency of human thought. Categories. (1) the facts of what in the stricter sense we call self-consciousness, and (2) certain spatial and temporal relations among our presentations themselves. On the one hand, it has to be noted that these spatial and temporal relations are but the occasion or motive—and ultimately perhaps, we may say, the warrant for the analogical attribution to things of selfness, efficiency and design, but are not directly the source of the forms of thought that thus arise. On the other hand, it is to be noted also that such forms, although they have an independent source, would never apart from suitable material come into actual existence. If the followers of Hume err in their exclusive reliance upon associations naturally and even necessarily generated by the order of our sensations (J. S. Mill), the disciple of Kant errs also who relies exclusively on the synthetic unity of apperception. The truth is that we are on the verge of error in thus sharply distinguishing the two at all; if we do so momentarily for the purpose of exposition it behoves us here again to remember that mind grows and is not made. The use of terms like innate, a priori, necessary, formal, &c., without further qualification leads only too easily to the mistaken notion that all the mental facts so named are alike underived and original, independent not only of experience but of each other; whereas but for the forms of intuition the forms of thought would be impossible that is to say, we should never have a self-consciousness at all if we had not previously learnt to distinguish occupied and unoccupied space, past and present in time, and the like. But, again, it is equally true that, if we could not feel and move as well as receive impressions, and if experience did not repeat itself, we should never attain even to this level of spatial and temporal intuition. Kant shows a very lame and halting recognition of this dependence of the higher forms on the lower both in his schematism of the categories, and again in correcting in his *Analytic* the opposition of sense and understanding as respectively receptive and active with which he set out in his *Aesthetic*. Still, although what are called the subjective and objective factors of real knowledge advance together, the former is in a sense always a step ahead. We find again without us the permanence, individuality, efficiency, and adaptation we have found first of all within (cf. 20, b and d). But such primitive imputation of personality, though it facilitates a first

understanding, soon proves itself faulty and begets the contradictions which have been one chief motive to philosophy. We smile at the savage who thinks a magnet must need food or the child who is puzzled that the horses in a picture remain for ever still; but few consider that underlying all common-sense thinking there lurks the same natural precipitancy. We attribute to extended things a unity which we know only as the unity of an unextended subject; we attribute to changes among these extended things what we know only when we act and suffer ourselves; and we attribute further to them in their changes a striving for ends which we know only because we feel. In asking what they are, how they act, and why they are thus and thus, we assimilate them to ourselves, in spite of the differences which lead us by-and-by to see a gulf between mind and matter. Such instinctive analogies have, like other analogies, to be confirmed, refuted, or modified by further knowledge, i.e. by the very insight into things which these analogies have themselves made possible. That in their first form they were mythical, and that they could never have been at all unless originated in this way, are considerations that make no difference to their validity assuming, that is, that they admit, now or hereafter, of a logical transformation which renders them objectively valid. This legitimation is, of course, the business of philosophy; we are concerned only with the psychological analysis and origin of the conceptions themselves. -

42. As it must here suffice to examine one of these categories, let us take that which is the most important and central of the three, viz, causality or the relation of cause and effect, as that will necessarily throw some light upon the constitution of the others. To begin, we must distinguish three things, which, though very different, are very liable to be confused. (1) Perceiving in a definite case, e.g. that on the sun shining a stone becomes warm, we may say the sun makes the stone warm. This is a concrete instance of predicating the causal relation. In this there is, explicitly at all events, no statement of a general law or axiom, such as we have when we say (2) Every event must have a cause a statement commonly known as the principle of causality. This again is distinct from what is on all hands allowed to be an empirical generalization, viz. (3) that such and such particular causes have invariably such and such particular effects. With these last psychology is not directly concerned at all: it has only to analyse and trace to its origin the bare conception of causation as expressed in (1) and involved in both these generalizations. Whether only some events have causes, as the notion of chance implies, whether all causes are uniform in their action or some capricious and arbitrary, as the unreflecting suppose all this is beside the question for us.

One point in the analysis of the causal relation Hume may be said to have settled once for all: it does not rest upon or contain any immediate intuition of a causal nexus. The two relations that Hume allowed to be perceived (or presumed to exist), viz. contiguity in space of the objects causally related and priority in time of the cause before the effect, are the only relations directly discernible. We say indeed The sun warms the stone as readily as we say The sun rises and sets, as if both were matters of direct observation then and there. But that this is not so is evident from the fact that only in some cases when one change follows upon another do we regard it as following from the other: casual coincidence is at least as common as causal connection. Whence the difference, then, if not from perception? Hume's answer, repeated in the main by English psychologists since, is, as all the world knows, that the difference is the result of association, that when a change *a* in an object *A* has been frequently observed to precede a change *b* in another object *B*, this repetition determines the mind to a transition from the one to the other. It is this determination, which could not be present at first, that constitutes the third relation betwixt these objects. This internal, impression generated by association is then projected; for 'tis a common observation that the mind has a great propensity to spread itself on external objects.

The subjective origin and the after-projection we must admit, but all else in Hume's famous doctrine seems glaringly at variance with facts. In one respect it proves too much, for not all constant sequences are regarded as causal, as according to his analysis they ought to be; again, in another respect it proves too little, for causal connection is continually predicated on a first occurrence. The natural man has always distinguished between causes and signs or portents; but there is nothing to show that he produced an effect many times before regarding himself as the cause of it. J. S. Mill has indeed obviated the first objection epistemologically by adding to constant conjunction the further characteristic of unconditionality. But this is a conception that cannot be psychologically explained from Hume's premisses, unless perhaps by resolving it into the qualification that the invariability must be complete and not partial,

whereupon the second objection applies. Unconditional is a word for which we can find no meaning as long as we confine our attention to temporal succession. It will not do to say both that an invariable succession generates the idea, and that such invariable succession must be not only invariable but also unconditional in order to generate it. We may here turn the master against the disciple: the same principle, says Hume, cannot be both the cause and the effect of another, and this is perhaps the only proposition concerning that relation which is either intuitively or demonstratively certain (*op. cit.* p. 391). Unconditionality is then part of the causal relation and yet not the product of invariable repetition.

Perhaps the source of this element in the relation will become clear if we examine more closely the so-called internal impression of the mind, which according to Hume constitutes the whole of our idea of power or efficacy. To illustrate the nature of this impression Hume cites the instant passage of the imagination to a particular idea on hearing the word commonly annexed to it, when it will scarce be possible for the mind by its utmost efforts to prevent that transition (*op. cit.* p. 393). It is this determination, then, which is felt internally, not perceived externally, that we mistakenly transfer to objects and regard as an intelligible connection between them. But, if Hume admits this, must he not admit more? Can it be pretended that it is through the workings of association among our ideas that we first feel a determination which our utmost efforts can scarce resist, or that we feel such determination under no other circumstances? If it be allowed that the natural man is irresistibly determined to imagine an apple when he hears its name or to expect thunder when he sees lightning, must it not also be allowed that he is irresistibly determined much earlier and in a much more impressive way when overmastered by the elements or by his enemies? But, further, such instances bring to light what Hume's determination also implies, *viz.* its necessary correlative, effort or action. Even irresistible association can only be known as such by efforts to resist it. Hume allows this when he says that his principles of association are not infallible causes; for one may fix his attention during some time on any one object without looking farther (*op. cit.* p. 393). But the fact is, we know both what it is to act and what it is to suffer, to go where we would and to be carried where we would not, quite apart from the workings of association. And, had Hume not confused the two different inquiries, that concerning the origin of the idea of causation and that concerning the ground of causal inference or law of causation, it could never have occurred to him to offer such an analysis of the former as he does.

Keeping to the former and simpler question, it would seem that when in ordinary thinking we say A causes this or that in B we project or analogically attribute to A what we experience in acting, and to B what we experience in being acted on; and the structure of language shows that such projection was made long before it was suspected that what A once did and B once suffered will be done and suffered in the same circumstances again. The occasions suitable for this projection are determined by the temporal and spatial relations of the objects concerned, which relations are matter of intuition. These are of no very special interest from a psychological point of view, but the subjective elements we shall do well to consider further. First of all, we must note the distinction of immanent action and transient action; the former is what we call action simply, and implies only a single thing, the agent; the latter, which we might with advantage call effectuation, implies two things, a patient as well as an agent. In scientific language the agent in an intransitive act is called a *causa immanens* and so distinguished from the agent in effectuation or *causa transiens*. Common thought, however, does not regard mere action as caused at all; and we shall find it, in fact, impossible to resolve action into effectuation. But, since the things with which we ordinarily deal are complex, have many parts, properties, members, phases, and in consequence of the analytic procedure of thought, there ensues, indeed, a continual shifting of the point of view from which we regard any given thing, so that what is in one aspect one thing is in another many (*cf.* 20). So it comes about that, when regarding himself as one, the natural man speaks of himself as walking, shouting, &c.; but, when distinguishing between himself and his members, he speaks of raising his voice, moving his legs, and so forth. Thus no sooner do we resolve any given action into an effectuation, by analytically distinguishing within the original agent an agent and a patient, than a new action appears. Action is thus a simpler notion than causation and inexplicable by means of it. It is certainly no easy problem in philosophy to determine where the resolution of the complex is to cease, at what point we must stop, because in the presence of an individual thing and a simple activity. At any rate, we reach such a point

psychologically in the conscious subject, and that energy in consciousness we call attention. If this be allowed, Hume's critique of the notion of efficacy is really wide of the mark. Some, as he says, have asserted that we feel an energy or power in our own mind; and that, having in this manner acquired the idea of power, we transfer that quality to matter, where we are not able immediately to discover it. . . . But to convince us how fallacious this reasoning is, we need only consider that the will, being here considered as a cause, has no more a discoverable connection with its effects than any material cause has with its proper effect. . . . - The effect is there grouping of the field of consciousness at the moment pack the jury or suborn the witnesses, as it were. But the ground of certainty is in all cases some quality or some relation of these presentations inter se. In a sense, therefore, the ground of all certainty is objective in the sense, that is, of being something at least directly and immediately determined for the subject and not by it. Where certainty is mediate, one judgment is often spoken of as the ground of another; but a syllogism is still psychologically a single, though not a simple, judgment, and the certainty of it as a whole is immediate. Between the judgment A is B and the question Is A B? the difference is not one of content nor scarcely one of form: it is a difference which depends upon the effect of the proposition on the subject judging. (i.) We have this effect before us most clearly if we consider what is by common consent regarded as the type of certainty and evidence, the certainty of present sense-impressions whence it is said, Seeing is believing. The evident is here the actual, and the feeling or consciousness of certainty is in this case nothing but the sense of being taken fast hold of and forced to apprehend what is there. (ii.) The like is true of memory and expectation: in these also there is a sense of being tied down to what is given, whereas in mere imagination, however lively, this non-voluntary determination is absent (cf. 26). Hume saw this at times clearly enough, as, e.g. when he says, An idea assented to feels different from a fictitious idea that the fancy alone presents to us. But unfortunately he not only made this difference a mere difference of intensity, but spoke of belief itself as an operation of the mind or manner of conception that bestowed on our ideas this additional force or vivacity.¹ In short, Hume confounded one of the indirect causes of belief with the ground of it, and again, in describing this ground committed the illogical error of making the mind determine the ideas instead of the ideas determine the mind. (iii.) In speaking of intellection he is clearer: The answer is easy with regard to propositions that are proved by intuition or demonstration. In that case the person who assents not only conceives the ideas according to the proposition, but is necessarily determined to conceive them in that particular manner (op. cit. p. 395). It has been often urged by J. S. Mill, for example that belief is something ultimate and primordial. No doubt it is; but so is the distinction between activity and passivity, and it is not here maintained that certainty can be analysed into something simpler, but only that it is identical with what is of the nature of passivity objective determination. As Bain put it, The leading fact in belief. . . is our primitive credulity. We begin by believing everything; whatever is true (Emotions and Will, 3d ed., p. 511). But the point is that in this primitive state there is no act answering to believe distinct from the non-voluntary attention answering to perceive, and no reflection such as a modal term like true implies. With eyes open in the broad day no man says, I am certain there is light; he simply sees. He may by-and-by come absolutely to disbelieve much that he sees, e.g. that things are nearer when viewed through a telescope just as he will come to disbelieve his dreams, though while they last he is certain of these too. The consistency we find it possible to establish among certain of our ideas becomes an ideal, to which we expect to find all our experience conform. Still the intuitive evidence of logical and mathematical axioms is psychologically but a new form of the actual; we are only certain that two and two make four and we are not less certain that we see things nearer through a telescope.

Presentation of Self, Self-Consciousness and Conduct.

44. The concept of self we have just seen underlying and to a great extent shaping the rest of our intellectual furniture; on this account it is at once desirable and difficult to analyse it and ascertain the conditions of its development. In attempting this we must carefully distinguish between the bare presentation of self and that reference of other presentations to it which is often called specially self-consciousness, inner sense, or in *Treatise of Human Nature*, Green and Grose's ed., i. 396.

internal perception. Concerning all presentations whatever that of self no less than the rest it is possible to reflect, This presentation is mine; it is my object; I am the subject attending to it. The presentation of self, then, is one

presentation among others, the result, like them, of the differentiation of the original continuum. But it is obvious that this presentation must be in existence first before other presentations can be related to it. On the other hand, it is only in and by means of such relations that the concept of self is completed. We begin, therefore, with self simply as an object, and end with the concept of that object as the subject or myself that knows itself. The self has, first of all (a) a unique interest and (b) a certain inwardness, (c) it is an individual that (d) persists, (e) is active, and finally (f) knows itself. These several characteristics of self are intimately involved; so far as they appear at all they advance in definiteness from the lowest level of mere sentience to those moments of highest self-consciousness in which conscience approves or condemns volition.

The earliest and to the last the most important element in self what we might perhaps term its root or material element is that variously styled the organic sensations vital sense, coenaesthesia, or somatic consciousness. This largely self and determines the tone of the special sensations and enters, though little suspected, into all our higher feelings. If, as sometimes happens in serious nervous affections, the whole body or any part of it should lose common sensibility, the whole body or that part is at once regarded as strange and even as hostile. In some forms of hypochondria, in which this extreme somatic insensibility and absence of zest leave the intellect and memory unaffected, the individual doubts his own existence or denies it altogether. Ribot cites the case of such a patient, who, declaring that he had been dead for two years, thus expressed his perplexity: *J'existe, mais en dehors de la vie réelle, matérielle, et, malgré moi, rien ne m'a donné la mort. Tout est mécanique chez moi et se fait inconsciemment.* It is not because they accompany physiological functions essential to the efficiency of the organism as an organism, but simply because they are the most immediate and most constant sources of feeling, that these massive but ill-defined organic sensations are from the first the objects of the directest and most unreflecting interest. Other objects have at the outset but a mediate interest through subjective selection in relation to these, and never become so instinctively and inseparably identified with self, never have the same inwardness. This brings us to a new point. As soon as definite perception begins, the body as an extended thing is distinguished from other bodies, and such organic sensations as can be localized at all are localized within it. At the same time the actions of other bodies upon it are accompanied by pleasures and pains, while their action upon each other is not. The body also is the only thing directly set in motion by the reactions of these feelings, the purpose of such movements being to bring near to it the things for which there is appetite and to remove it from those towards which there is aversion. It is thus not merely the type of occupied space and the centre from which all positions are reckoned, but it affords us an unflinching and ever-present intuition of the actually felt and living self, to which all other things are external, more or less distant, and at times absent altogether. The body then first of all gives to self a certain measure of individuality, permanence and inwardness.

But with the development of ideation there arises within this what we may call an inner zone of self, having still more unity and permanence. We have at this stage not only an intuition of the bodily self doing or suffering Inner Self here and now, but also memories of what it has been and done under varied circumstances in the past. External impressions have by this time lost in novelty and become less absorbing, while the train of ideas, largely increased in number, distinctness and mobility, diverts attention and often shuts out the things of sense altogether. In all such reminiscence or reverie a generic image of self is the centre, and every new image as it arises derives all its interest from relation to this; and so apart from bodily appetites new desires may be quickened and old emotions stirred again when all that is actually present is dull and unexciting. But desire and emotions, it must be remembered, though awakened by what is only imaginary, invariably entail actual organic perturbations and with these the generic image of self comes to be intimately united. Hence arises a contrast between the inner self, which the natural man locates in his breast or the chief seat of these emotional disturbances, and the whole visible and tangible body besides. Although from their nature they do not admit of much idea representation, yet, when actually present, these organic sensations exert a powerful and often irresistible influence over other ideas they have each their appropriate train, and so heighten in the ver-

Bases affectives de la personnalité in *Revue philosophique* XVIII. 149.

complex and loosely compacted idea of self those traits they originally wrought into it, suppressing to an equal extent all the rest. Normally there is a certain equilibrium to which they return, and which, we may suppose, determines the so-called temperament, nature or disposition, thus securing some tolerable uniformity and continuity in the presentation of self. But even within the limits of sanity great and sudden changes of mood are possible, as, e.g. in hysterical persons or those of a mercurial temperament, or among the lower animals at the onset of parental or migratory instincts. Beyond those limits as the concomitant apparently of serious visceral derangements or the altered nutrition of parts of the nervous system itself complete alienation may ensue. A new self may arise, not only distinct from the old and devoid of all save the most elementary knowledge and skill that the old possessed, but diametrically opposed to it in tastes and disposition obscenity, it may be, taking the place of modesty and cupidity or cowardice succeeding to generosity or courage. The most convincing illustrations of the psychological growth and structure of the presentation of self on the lower levels of sensation and ideation are furnished by these melancholy spectacles of minds diseased; but it is impossible to refer to them, in detail here. Passing to the higher level of intellection, we come at length upon the concept which every intelligent being more or less disseminates as a tinctly forms of himself as a person, M. or N., having such and such a character, tastes and convictions, such as ofl. and such a history, and such and such an aim in life.

The main instrument in the formation of this concept, as of others, is language, and especially the social intercourse that language makes possible. Up to this point the presentation of self has shaped that of not-self, that is to say, external things have been comprehended by the projection of its characteristics. But now the order is in a sense reversed: the individual advances to a fuller self-knowledge by comparing the self within with what is first discernible in other persons without. So far *avant l'homme est la socié*; it is through the us that we learn of the me (cf. 36, note 1). Collective action for common ends is of the essence of society, and in taking counsel together for the good of his tribe each one learns also to take counsel with himself for his own good on the whole; with the idea of the common weal arises the idea of happiness as distinct from momentary gratification. The extra-regarding impulses are now confronted by a reasonable self-love, and in the deliberations that thus ensue activity attains to its highest forms those of thought and volition. In the first we have a distinctly active manipulation of ideas as compared with the more passive spectacle of memory and imagination. Thereby emerges a contrast between the thinker and these objects of his thought, including among them the mere generic image of self, from which is now formed this concept of self as a person. A similar, even sharper, contrast also accompanies the exercise of what is very misleadingly termed self-control, i.e. control by this personal self of the various natural affections to use Butlers phrase which often hinder it as external objects hindered them. It is doubtful whether the reasoning, regulating self is commonly regarded as definitely localized. The effort of thinking and concentrating attention upon ideas is no doubt referred to the brain, but this is only comparable with the localization of other efforts in the limbs; when we think we commonly feel also, and the emotional basis is of all the most subjective and inalienable. If we speak of this latest phase of self as par excellence the inner self, such language is then mainly figurative, inasmuch as the contrasts just described are contrasts into which spatial relations do not enter.

45. The term reflection, or internal perception is applied to that state of mind in which some particular presentation or group ~ of presentations (x or y) is not simply in the field of SC, OsSs. consciousness but there as consciously related to self, which is also presented at the same time. Self here may be symbolized by M, to emphasize the fact that it is in like manner an object in the field of consciousness. The relation of the two is commonly expressed by saying, This (x or y) is my (Ms) percept, idea or volition; I (M) it is that perceive, think, will it. Self-consciousness, in the narrowest sense, as when we say I know myself, I am conscious that I am, &c., is but a special, though the most important, instance of this internal perception: here self (M) is presented in relation to self (with a difference, M); the subject itself at least, so we say is or appears as its own object.

It has been often maintained that the difference between consciousness and reflection is not a real difference, that to know and to know that you know are the same thing considered in i This subject has a very wide literature. The following are specially interesting: Rihot, *Les Maladies de la personnalite* (3rd ed. 1889); Boris Sidis and S. P. Goodhart, *Multiple Personality* (1905); Morton Prince, *The Dissociation of a Personality* (1906).

different aspects.² But different aspects of the same thing are not the same thing, for psychology at least. Not only is it not the same thing to feel and to know that you feel; but it might even be held to be a different thing still to know that you feel and to know that you know that you feel such being the difference perhaps between ordinary reflection and psychological introspection.³ The difficulty of apprehending these facts and keeping them distinct seems obviously due to the necessary presence of the earlier along with the later; that is to say, we can never know that we feel without feeling. But the converse need not be true. How distinct the two states are is shown in one way by their notorious incompatibility, the direct consequence of the limitation of attention: whatever we have to do that is not altogether mechanical is ill done unless we lose ourselves in the doing of it. This mutual exclusiveness receives a further explanation from the fact so often used to discredit psychology, viz, that the so-called introspection, and indeed all reflection, are really retrospective. It is not while we are angry or lost in reverie that we take note of such states, but afterwards, or by momentary side glances intercepting the main interest, if this be not too absorbing.

But we require an exacter analysis of the essential fact in this retrospect the relation of the presentation x or y to that of self or M . What we have to deal with, it will be observed, is, implicitly at least, a judgment. First of all, then, it is noteworthy that we are never prompted to such judgments by everyday occurrences or acts of routine, but only by matters of interest, and, as said, generally when these are over or have ceased to be all-engrossing. Now in such cases it will be found that some effect of the preceding state of objective absorption persists, like wounds received in battle, unnoticed till the fight is over such e.g. as the weariness of muscular exertion or of long concentration of attention; some pleasurable or painful after-sensation passively experienced, or an emotional wave subsiding but not yet spent; the jar of interrupted expectation, or the relief of sudden attainment after arduous striving, making prominent the contrast of contentment and want in that particular; or, finally, the quiet retrospect and mental rumination in which we note what time has wrought upon us and either regret or approve what we were and did. All such presentations are of the class out of which, as we have seen, the presentation of self is built up, and so form in each case the concrete bond connecting the generic image of self with its object. In this way and in this respect each is a concrete instance of what we call a state, act, affection, &c., and the judgments in which such relations to the standing presentation of self are recognized are the original and the type of all real predications. The opportunities for reflection are at first few, the materials being as it were thrust upon attention, and the resulting percepts are but vague. By the time, however, that a clear concept of self has been attained the exigencies of life make it a frequent object of contemplation, and as the abstract of a series of instances of such definite self-consciousness we reach the purely formal notion of a subject or pure ego. For empirical psychology this notion is ultimate; its speculative treatment falls altogether usually under the heading rational psychology to metaphysics.

46. The growth of intellection and self-consciousness reacts powerfully upon the emotional and active side of mind. To describe the various sources of feeling and of desire that conduct thus arise aesthetic, social and religious sentiments, pride, ambition, selfishness, sympathy, &c. is beyond the scope of systematic psychology, and certainly quite beyond the limits of an article like the present. But at least a general rsum of the characteristics of activity on this highest or rational level is indispensable. If we are to gain any oversight in a matter of such complexity it is of the first importance to keep steadily in view, as a fundamental principle, that as the causes of feeling become more complex, internal, and representative the consequent actions change in like manner. We have noted this possibly by the confusions incident to a special faculty of reflection, which they controvert James Mill, *Analysis*, i. 224 seq. (corrected, however, by both his editors, pp. 227 and 230), and also Hamilton, *Lect. i.* 192.

i It has been thought a fatal objection to this view that it implies the possibility of an indefinite regress; but why should it not? We reach the limit of our experience in reflection, or at most in deliberate introspection, just as in space of three dimensions we reach the limit of our experience in another respect. But there is no absurdity in supposing a consciousness more evolved and explicit than our self-consciousness, and advancing on it as it advances on that of the unreflecting brutes.

connection already in the case of the emergence of desires, and seen that desire in prompting to the search for means to its end is the *primum movens* of intellection (cf. 35). But intellect does much more than devise and contrive in

unquestioning subservience to the impulse of the moment, like some demon of Eastern fable; even the brutes, whose cunning is on the whole of this sort, are not without traces of self-control. As motives conflict and the evils of hasty action recur to mind, deliberation succeeds to mere invention and design. In moments of leisure, the more imperious cravings being stilled, besides the rehearsal of failures or successes in the past, come longer and longer flights of imagination into the future. Both furnish material for intellectual rumination, and so we have at length (1) concepts of general and distant ends, as wealth, power, knowledge, and self-consciousness having arisen that concept also of the happiness or perfection of self, and (2) maxims or practical generalizations as to the best means to these ends. Instead of actions determined by the *vis a tergo* of blind passion we have conduct shaped by what is literally prudence or foresight, the pursuit of ends that are not esteemed desirable till they are judged to be good. The good, it is truly urged, is not to be identified with the pleasant, for the one implies a standard and a judgment, and the other nothing but a bare fact of feeling; thus the good is often not pleasant and the pleasant not good; in talking of the good, in short, we are passing out of the region of nature into that of character. It is so, and yet this progress is itself so far natural as to admit of psychological explication. As already urged (~ ~4), the causes of feeling change as the constituents of consciousness change; also they depend more upon the form of that consciousness as this increases in complexity. When we can deliberately range to and fro in time and circumstances, the good that is not directly pleasant may indeed be preferred to what is only pleasant while attention is confined to the seen and sensible; but then the choice of such good is itself pleasant rather than its rejection would have been.

The mention of deliberation brings us to the perennial problem of the freedom of the will. But to talk of will is to lapse into the confusions of the old faculty psychology. As *ree OiiJ Locke* long ago urged: The question is not proper, whether the will be free, but whether a man be free. In the absence of external constraint, when a man does what he likes, we say he is externally free; but he may still be the slave of every momentary impulse, and then it is said that he is not internally free. The existence and nature of this internal freedom is the problem. But if such freedom is held to imply a certain sovereignty or autonomy of self over against momentary propensities and blind desires, there can obviously be no question of its existence till the level of self-consciousness is reached and maxims or principles of action are possible. The young child, the brute and the imbecile, even when they do as they like, have not this freedom, though they may be said to act spontaneously. A resolutely virtuous man will have more of this freedom than the man of good moral disposition who often succumbs to temptation; but it is equally true that the hardened sinner has more of it than one still deterred in his evil ways by scruples of conscience. A man is internally free, then, whenever the ends he pursues have his whole-hearted approval, whether he say with Milton's Satan, Evil be thou my good, or with Jesus, Thy will be done. But this freedom is always within our experience a relative freedom; hence at a later time we often declare that in some past act of choice we were not our true selves, not really free. But what is this true self more than our ideal? Or perhaps we prefer to say that we were free and could have acted otherwise; and no doubt we might, if the place of the purely formal and abstract concept of self had been occupied by some other phase of that empirical self which is continuously, but at no one moment completely, presented. I must then be admitted that psychological analysis in this case is not only actually imperfect, but must always remain so so long as at any rate, as all that we discern by reflection is less than all we are. But this admission does not commit us to allowing the possible existence of a *liberum arbitrium indifferens*, sometimes called absolute indeterminism; for that would seem to differ in respect from absolute chance or caprice. On the other hand, the rigidly determinist position can only be psychologically justified by ignoring the activity of the experiencing subject altogether. At bottom it treats the analysis of conduct as if it were a dynamic problem pure and simple. But motives are never merely so many quantitative forces playing upon something inert, or interacting entirely by themselves. At the level of self-consciousness especially motives are reasons and reason is itself a motive. In the blind struggle of so-called self-regarding impulses might is the only right; but in the light of principles or practical maxims right is the only might. This superiority in position of principles is only explicable by reference to the inhibitory power of attention, which alone makes deliberation possible and is essentially voluntary; that is, subjectively determined. But, too, it may be objected, deliberation in such cases is just the result of painful experiences of the evil of hasty action, and only ensues when this motive is strong enough to restrain the impulse that would otherwise prevail. Even if this

be granted, it does not prove that the subject's action is determined for and not by him; it merely states the obvious fact that prudence and self-control are gradually acquired. Authoritative principles of action, such as self-love and conscience, are no more psychologically on a par with appetites and desires than thought and reason are on a par with the association of ideas.

Relation of Body and Mind.

4-. The question of subjective initiative leads us naturally to that concerning the connection of mind and organism, to which we now proceed. In development and efficiency, in. P-IIe(jsm the intensity and complexity of their processes, mind and brain keep invariably and exactly in line together. Striking I and impressive instances of this correspondence are to be found in comparative psychology, and especially in mental pathology; but it is needless here to enlarge on a point which in the main is beyond dispute. In this correspondence lay the plausibility of the old materialism. But a closer scrutiny discloses an equally impressive disparity: we reject materialism, accordingly, while still maintaining this psychoneural parallelism to be a well-established fact. From this we must distinguish a second sense of parallelism founded on the disparity just mentioned as pertaining to the psychical and neural correlates. We may call this physiologico-psychological, or, more briefly, met hodological, parallelism. It disclaims as illogical the attempt to penetrate to psychical facts from the standpoint of physiology, so persistently and confidently pursued by the old materialists.

It also forbids the psychologi~t to piece out his own shortcomings with tags borrowed from the physiologist. The concepts of the two sciences are to be kept distinct, as the facts themselves to which they relate are distinct. Confusion is inevitable if the psychologist, for example, talks of his volition as the cause of his arm moving, when by arm movement he means the process described by the physiologist in terms of efferent excitations, muscular flexions, and so forth; or if the physiologist speaks of a sensation of red as produced by retinal stimulation due to lightwaves of a certain length, when by sensation he means what he immediately experiences on looking at a field poppy. This methodological convention, as we may call it, implies a mor stringent interpretation of causation than that expounded by J. S. Mill and his contemporaries. It does riot, however, forbid psychological inferences on the basis of physiological facts, no] vice versa. But in spite of this distinctness of the facts, and 0:

the standpoints from which they are respectively studied, theh causal relation cannot be simply ignored: it is, however, a problem that pertains strictly to the higher standpoint of philosophy. There have been in all four different theories of this relatiol within modern times: (I) that of mutual interactionthi common-sense viewvery inconsistently maintained by Des cartes; (2) the occasionalism substituted for this by Geulinc:

and the later Cartesians; (3) the pre-established harmony o Leibnitz; and (4) the monism of Spinoza, which reduced matte and mind to parallel attributes of the One Substance. The las of theseseyered, however, from Spinozas metaphysicsis sti] perhaps the prevailing theory, and to it the term psychophysice parallelism most properly applies. For whereas the parallelistr first mentioned states a real correspondence between psychica I processes and neural processes, but leaves open the question a a possible interaction between matter and mind, moderi psychophysical parallelism is a pure hypothesis concerning th relation of psychical facts to physical theories, on the ground a I whichas we shall presently seeany interaction betweei matter and mind is expressly denied.

i The right is only relative, of course, when the maxims ar - hypothetical to use Kants phrase,but it is absolute whe the maxim is categorical.

But in the exposition of this hypothesis these two meanings of parallelism are frequently confused or interchanged. The same term body is applied both to an aggregate of matter and to the living organism. Now life must be regarded as either inherent in matter, or as the result simply of a particular material configuration, or as physically inexplicable. But, for the present at all events, it cannot be explained physically; nor are we even within measurable distance of such an explanation: so much is beyond cavil. Yet the hypothesis of psychophysical parallelism confines us to one or other of the former alternatives: at the same time its unwarrantable identification with psychoneural parallelismwh~re we find a real correspondence between mind and organismtends to conceal the gravity of such assumptions. The standpoint of physiology, therefore, must be described not as identical with that of physics, but as

intermediate between it and the standpoint of psychology. If the fact of life could be reduced to physical terms, physiology then, no doubt, would have to fall into line with physics, much as chemistry, for example, may have had to do. On the other hand, till a physical explanation of life is forthcoming, physiology belongs, with psychology, to the biological group of sciences, and cannot divest itself completely of the teleological concepts essential to them, not a vestige of which belongs to bare physics. It is just because of this community in their concepts that there actually is a certain point to point correspondence or parallelism between the psychical and the neural:

as an organ a neuron is a unit; physically regarded, it ceases to be one. Yet this illicit identification of organism and material body is thought to be legitimate, inasmuch as physiological processes are found to rest invariably on a physical basis: and inasmuch as, though methodological parallelism forbids the physiologist to identify psychosis with neurosis, no limits can be imposed on his efforts to ascertain the mechanism of the neurosis itself. But if this be granted, is not psychophysical parallelism justified, in principle at all events? By no means: as little, for example, as an explanation of the mechanism of a locomotive would justify us in ascribing its origin, its maintenance or its guidance to the machine itself. When life and mind are explained by their mechanism the physicist may summon the biologist, as Mephistopheles did Faust, *Her zu miT*: then, but not before.

A favorite mode of stating psychophysical parallelism is that known as the Double Aspect Theory. In this, besides the unjustified identification of the first and third Aspect meanings, we find also an equally unjustified interpretation of parallelism in the second sense. All that methodology prescribes is that psychologists and neurologists and, we may add, that physicists too shall severally, as specialists, mind their own business. Again, all that the first two jointly ascertain is simply the fact of correspondence—the explanation of it is still to seek. Two propositions are now advanced which are held to meet this need. First and negatively the connection, it is said, is not causal: mind does not act on body, nor body on mind: the changes on each side form two independent series, each going along by itself. In other words, the series themselves are said to exemplify what methodology enjoins on the sciences that investigate them—they mind their own business and never intrude into each other's domains. Nevertheless their interaction is not *prima facie* contradictory or absurd, and ordinary thought, as we have seen, assumes that it exists. What evidence, then, is there for denying it absolutely? Empirical evidence for such a universal negative there can hardly be; it must be established therefore if established at all on a priori grounds. Meanwhile two facts, already noticed, make seriously against it. On the psychical side sensations point to an intrusion of some sort, and are not psychically explicable (cf. 16), and the like for the present at all events must be said of the fact of life on the physical side. Apart from all this, it seems plain that methodological parallelism, so far from justifying the denial of interaction, simply precludes its discussion on the dualistic level to which that parallelism is confined. The gulf implied is indeed not absolute of so much, parallelism in the first sense assures us but those who are forced to keep to their own side of it obviously are not the people to settle how it is crossed. We are aware that the dualism is not absolute, it is replied:

it is only phenomenal, and the two series of phenomena are conditioned by an underlying unity of substance. Such is the second, and positive, proposition of the theory. Again asking for evidence, we are told that this underlying unity is unknown in fact, unknowable. This unknowable substance is assumed, then, simply because the impossibility of causal connection being taken as established no other alternative remains. The negative proposition is thus the foundation of the theory, and without it this agnostic monism becomes entirely arbitrary. We have, therefore, to continue our search for the grounds on which the possibility of interaction is denied. But it will be worth while first to examine certain ambiguities besetting the positive statement.

Difference of aspect may result solely from difference of standpoint, or it may be due to difference in the reality itself. The circle, seen as concave from within and as convex from without, is an ancient instance of the first still in great favor; the pillar that was cloud and darkness to the Egyptians, but light to the children of Israel, may serve to exemplify the second. The former we may call the phenomenal, and the latter the ontal, meaning of aspect. With these two very different meanings our theory plays fast and loose, as suits its own convenience. To do this is easy in so far as the reality is unknown and unknowable; and necessary since in the end, the reality, however unknowable,

must somehow include both the phenomenal aspects and all that pertains to them, and so far therefore be known. In dealing with aspect in the first sense, the one question to be raised concerns the nature and relation of the respective standpoints. To one belongs what we know as individual experience, and this is essentially concrete, immediate, and qualitatively diverse; to the other belongs an abstract, conceptual scheme, wholly quantitative, familiarly known as the mechanical theory. Between these there is plainly no such co-ordination as the inept comparison with the inside and the outside of a circle implies. Neither is there, on the other hand, the same complete opposition; for the entire mechanical theory is based upon individual experience as enlarged and developed by inter-subjective intercourse. Both the sense-knowledge of the one and the thought-knowledge of the other relate to the one objective factor involved in both. So far, then, there is fundamentally only one standpoint—that of the subjective factor to the objective factor, which is immediately perceived in the one and mediately conceived in the other. The question here raised is thus primarily epistemological, but it is a question, as we have seen, in which psychology is intimately concerned. Aspect in the second sense is independent of standpoints. We have here to deal with attributes of the one reality, more or less in Spinoza's sense: this reality itself, as possessed of disparate attributes, is so far dual, and the question of causal connection between these attributes is not escaped. For to know that a thing has invariably two distinct attributes does not enable us to determine straightway how the changes or modes of the one are connected with those of the other. (1) The same attribute might be always the initiating or independent variant, and then would come the question of finding out which of the two it was; or (2) it might be that now one, now the other, took the lead, the grounds of this alternation being then the topic for inquiry; or, finally, (3) it might be, as our theory assumes, that there was but a single series of double changes. The questions here raised are philosophical questions, but again they are questions in which psychology is intimately concerned. Our examination thus yields two results: first, there is fundamentally only a single standpoint—that of experience, now at the perceptual, now at the conceptual, level; and secondly, the distinction of aspects is not merely phenomenal, but pertains somehow to reality. The question is how; and this leads us to resume our inquiry into the grounds on which interaction is denied.

These grounds neither pertain to psychology nor to physiology. In spite of the outstanding difficulties connected with sensation and life, which these sciences severally raise, such denial is upheld. In fact, if there were, since it is only as we contemplate finite portions of the circle that the distinction of concave and convex is present, the nearer we approximated to its elements the more this difference of aspect would disappear. If on the physical side we called these elements atoms, there would be an answering element of mind-stuff on the psychical; and there would be no more unity and no other diversity in a given man's mind than in his brain regarded as a complex of primordial atoms. Wild as all this seems, yet views of the kind have been seriously put forward more than once as the logical outcome of psychophysical parallelism.

mainly on the strength of an interpretation of the principle known as the conservation of energy—an interpretation of it, however, which many of the ablest physicists disallow. The energy of the physical world, it is maintained, is a strictly invariable amount; matter, therefore, cannot act on mind, for such action would entail a decrease, nor can mind act on matter, since that would entail an increase, of this energy. In other words, the material world is held to be a closed system; and as all the changes within it are mass-motions, there can be none which are not the effect and equivalent of antecedent mass-motions. But now this statement must be established on physical grounds: to assume it otherwise would be openly to beg the very question at issue. For if mind does act on matter, the physical mechanism is subject to changes from without, and so often its motions are not due to antecedent motions; and this the common-sense view cannot, of course, be summarily dismissed as impossible or absurd. Now, energy is essentially a metrical notion, and its conservation in finite and isolated material systems has been ascertained by careful quantitative experiments. To say that the energy of the material universe is constant is only a way of expressing the generalization of this result—it is tantamount, in other words, to saying that it holds of all finite isolated systems. The whole universe may perhaps be called isolated, but we do not know that it is finite. We cannot, therefore, apply metrical concepts to it; and consequently we cannot interpret the conservation of energy as meaning that the physical part of it is a closed system. But if not a closed system, then the energy of a given group of bodies may be increased or decreased without interaction between that group and other bodies—may be increased or decreased by

psychophysical interaction, that is to say. And, moreover, such psychophysical interaction would not invalidate the conservation of energy, rightly understood; for that merely means that the energy of a group of bodies can be altered only from without, and this might happen whenever such interaction occurred. We seem, therefore, justified for the present in rejecting psychophysical parallelism as one of the three possible modes of relating mind and matter regarded as attributes of the real. Not only are there psychological as well as biological objections which it has not yet overcome, but there are so far no physical grounds in its favor.

At this point we may again for a moment turn aside to consider a modified form of the doctrine the so-called Conscious Auto-Conscious matter Theory, an attempt to blend the old Cartesian Auto-views concerning the minds of man and brute. According to Huxley,² the best known modern exponent of this theory, our mental conditions are simply the symbols in consciousness of the changes that take place automatically in the organism. This consciousness is supposed to be related to the mechanism of the body simply as a collateral product of its working, and to be as completely without any power of modifying that working as the steam-whistle. . . is without influence upon the locomotive machinery: thus the feeling we call volition is not the cause of a voluntary act, but the symbol of that state of the brain which is the immediate cause of that act. In other words, physical changes are held to be independent of psychical, whereas psychical changes are declared to be their collateral products. They are called collateral products, or epiphenomena, to obviate the charge of materialism, and to conform to the interpretation of the conservation of energy that we have just discussed. Such a theory is, strictly speaking, one of parallelism no longer: rather it adopts, instead, the first of the two possibilities we have noted above as opposed to parallelism. According to it, matter is the initiating or independent variant, on whose changes mind simply follows suit. It is open to two fatal objections. First, it is methodologically unsound: its psychology is physiological in the The possibility is enough: we cannot tell what actually happens, and do not, therefore, know how far the direction of matter by mind calls for a modification or limitation of physical hypotheses. Cf. Ward, *Naturalism and Agnosticism* (3rd ed., 1906), ii. 7386.

Essay on Animal Automatism, *Collected Essays*. vol. i.

bad sense. It regards all states of consciousness as passive, i.e. as ultimately either feelings or reflexes. Volitional activity is declared illusory; and if this be true, intellectual activity must be illusory too. But to detect illusion requires experience of reality we only know the sham by knowing the genuine first; and even passive states could not be experienced as such save by contrast with states that are active. To the physical side, then, we naturally turn for this knowledge which we are told is not to be found on the psychical; and we do so the more readily as, according to the present theory, the physical holds the primary place. But we turn in vain; for matter is inert, and its energy only works by taking the line of least resistance, like water running down hill. Moreover, such activity as we are in search of could only be found here in case the physical mechanism showed signs of being intelligently directed, and that would also be evidence that psychical activity is not illusory. Is, then, the physical side after all primary? No, we reply: the assumption is epistemologically unsound. This is our second objection. The order implied in the distinction of physical phenomena and psychical epiphenomena is contrary to all experience and indefensible. A physical phenomenon is either actually perceived or possibly perceptible; otherwise it is devoid of empirical reality altogether. But objects of perception are so far psychical; that is, they belong to immediate or individual experience. Therefore we cannot regard them as independent of this experience, nor this as their collateral product, i.e. as epiphenomenal. Again, the phenomenality supposed to be common to both involves, as we have already seen, a fundamental identity in the standpoint of each: they belong to the same continuous experience at different levels. And lastly, their abstract, merely quantitative, character shows that it is the concepts of physics, and not the facts of immediate experience, that are symbolic, and so to say epithetic. The attempt either empirically or speculatively to outflank mind by way of matter is an absurdity on a par with getting into a basket in the hope of being able to carry oneself.

These epistemological considerations may help us to deal with the prime and ultimate argument for strict parallelism. When all is said and done, it is urged, still the interaction of mind and matter remains inconceivable. But this is

hardly a sufficient reason for denying what is *prima facie* a fact. Occasionalists, from Geulinx to Lotze, have acknowledged the same obscurity in all cases of transeunt action. Yet they did not venture to deny that sensations were interruptions in the psychical series, the occasions for which were only to be found in the physical; nor that purposive movements were interruptions in the physical series, the occasions for which were only to be found in the psychical. And surely such a position is more in harmony with experience than that of the parallelists, who maintain that each series goes along of itself a statement which, as we have repeatedly urged, contradicts psychology and assumes the physical explanation of life. Whereas occasionalism leaves the question of ultimate means to be dealt with by a metaphysics which will respect the facts,³ parallelism forecloses it on the basis of a ready-made metaphysics modern. naturalism, that is to say in which psychology as an independent science is entirely ignored. Starting with a dualism as absolute as that of Descartes but replacing his two substances by one, enjoying the otium cum dignitate of the Unknowable starting, too, from the physical side, no wonder such a philosophy finds that what is for us the most familiar and of the supremest interest, the concrete world of sense and striving, is for it the altogether inconceivable, the supreme world riddle. And yet if the naturalist could deign to listen to the plainest teachings of psychology and of epistemology, the riddle would seem no longer insoluble, for his phenomenal dualism and his agnostic monism would alike disappear. The material mechanism which he calls Nature would rank not as the profoundest reality there is to know: it would rather become what indeed machine primarily connotes an instrumentality subservient to the occasions of the living world of ends; and so regarded, it would cease to be merely calculable, and 8 Cf. Lotze, *Metaphysik*, 61 fin- would be found intelligible as well. Psychophysical parallelism, then, we conclude, is not a philosophically tenable position; and pending the metaphysical discussion as to the ultimate nature of interaction generally we have to rest content with the second of the three possible modes of connection above defined, as occasionalism formulates it. According to this, the two series, the psychical and the physical, are not independent and closed against each other; but in certain circumstances e.g. in perception physical changes are the occasion of psychical, and in certain circumstances e.g. in purposive movements-psychical changes are the occasion of physical: the one change not being explicable from its psychical antecedents, nor the other from its physical.

Into the metaphysical discussion we cannot, of course, enter here. It must suffice to say that it will not be conducted on the lines of our present inquiry: it will not start from a dualism of matter and mind, either regarded as substances or as phenomena. Its problem will rather be the interaction of subject and objecta duality in the unity of experience, which by no means coincides with the dualism of matter and mind, neurosis and psychosis, and the like.

COMPARATIVE PSYCHOLOGY

48. Psychoneural parallelism is no doubt a well established generalization; nevertheless, concerning its exact range and its precise meaning there are differences of opinion. It is applicable, every one will allow, so soon as there is evidence of experiences individually acquired (ci. 3); and from such point onwards, in ascending any biological phylum, we find that the psychical and neural aspects differentiate and develop together. But how when we descend? Interpreting the neural correlate physiologically, and not morphologically, as referring primarily to function and not to structure, we find that even in unicellular organisms it is still present as irritability and conductivity (leading to contraction, secretion, &c.). But as at higher levels psychosis is correlative to neurosis, the principle of continuity would seem to justify us in assuming a like correspondence here. Moreover, learning by experience, the comparative psychologists criterion, obviously presupposes some antecedent and underlying process, of which it is the differentiation and development. And our general analysis of mind, if correct, enables us to describe this process the irreducible psychical minimum, of which we are here in search. We have such complete psychosis and it is the simplest we know in the emotional or diffused movements that follow immediately upon sensation; and these are so far purposive though not intentional that they tend to heighten or retain what is pleasurable, and to alleviate or remove what is painful. Given that plasticity, which is the psychological presupposition of all acquisition, then learning by experience is a possible development from such a primitive stage.

But though every psychosis have its concomitant neurosis it is uncertain how far the converse holds good. The action of the heart, for example, depends upon neuroses of which we have now no direct consciousness. Facts of this kind have led to three hypotheses concerning the lowest forms of life, differing more or less from that just proposed. (i.) Perfectibility and instinct are found, it is said, to be in inverse ratio. Hence in the lowest forms of life there is no learning by experience, because a stationary state of complete adjustment to environment has been already attained, and all reactions have therefore become secondarily automatic: consciousness, having served its purpose, has disappeared. To such a very Buddhist psychology it may be objected: (1) that even organic reflexes tell upon the so-called vital sense or coenaesthesia, and so far the irreducible minimum being still intact do not preclude all possibility

of learning, should occasion arise; and (2) that the psychical life, even of a Protozoan, does not, according to the best evidence show any such mechanical finality as is here supposed. (ii. According to the second view, which is advocated by Herbert Spencer, the behaviour of the lower organisms is wholly made up of such reflexes, supposed to be devoid of all psychical concomitants; but consciousness so far from having disappeared first comes upon the scene at the opportune moment when the increasing complexity of the mechanism calls for its guidance. Psychologically this hypothesis is less defensible than the last, and it has already been dealt with at some length (cf. 7). It not only assumes, as that does, far more uniformity in the interaction of organism and environment than the facts warrant, but in regarding life as prior to mind, and as the means of its evolution, it burdens science with two insoluble problems instead of one. For even if it were possible chemically to build up protoplasm, we should still be as far from organisms as a heap of bricks are from putting themselves together as a house. (iii.) The last view we have to notice is essentially an extension of the preceding, and is chiefly interesting as a *reductio ad absurdum* of that. The physics of colloidal substances at present wanting, but confidently expected in the near future by certain biologists is the key which is to unlock the mysteries of protoplasm. Certain organisms, regarded as varieties of such a substance, react positively to a given physical property of the environment, and others negatively: thus a moth flies towards the light, and a centipede runs from it the one is positively, the other negatively, heliotropic; the radicle of a seed, growing downwards, is, positively, the plumule, growing upwards, is, negatively, geotropic. Instincts are but complexes of such tropisms, and owe their character entirely to the symmetrical form and definite structure of the colloidal substance. Now if it facilitate the work of the biologist to say that when what we ordinarily regard as a hungry caterpillar climbs to the tip of a branch it is forced so to do by positive heliotropism; that then positive chemiotropism sets up mastication of the young buds; and that, lastly, we can imagine this process leading to the destruction of the substances in the skin of the animal that are sensitive to light, and upon which the heliotropism depended, so leaving it free to crawl downwards and come in contact with the new buds which have in the meantime unfolded

if such language serves any useful purpose, all well and good; only it must be applied to the hungry man too: in short, all behaviour must be described in the same terms. For the champion of colloids to betake himself to consciousness as he approaches the higher forms of life is as much a breach of methodological parallelism as it is for the psychologist to fall back upon protoplasm as he approaches the lower. But to suppose that psychical processes first appear in the complicated form of association of ideas which learning by experience is taken, to imply and at the same time to assume that such experience, even when it appears, is ultimately due to the motions of colloidal substances, these are incongruous absurdities which only the grossest ignorance would be bold enough to maintain.

Concluding, as we have done, that mind and matter may provisionally call them do really interact, we naturally infer that organic structures are not the result solely of material processes, but involve the co-operation of mental direction and (selection: in other words, we are led to regard structure as partly shaped and perfected by function, rather than function as solely determined by structure, itself mechanically evolved. As such a view is justified by the fact that mechanical evolution is primarily a process of degradation rather than development a case of *fallis descensus* contrasting with the upward struggle - of life *per aspera ad astra*. Still, the notion of life or mind as formative and directive has its difficulties. In the first place, we have no experience of mind organizing matter no experience of the actual process, that is to say however sure we may feel - of the fact.³ Hence the occasionalism to which here, at any rate science is confined. But even so, the difficulty is not wholly

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of organs the artificer handles, but does not literally order, his tools as if they too were intelligent. The conscious direction of such movements is doubtless facilitated by the fact that many of the complex co-ordinations actually involved in them are carried out automatically, thanks to structural modifications, either inherited or acquired. And, regarding life phylogenetically, we can imagine this process carried back indefinitely. Indeed, if it be illogical to talk of mechanisms evolving themselves and giving rise to the beings whose ends they serve, we have no choice but to accept this dualism of mind-shaping and matter inert. No choice, that is, unless we can establish the primacy of the psychological standpoint. Here we have duality but not dualism, and the object is not inert, i.e. is not matter. But still there remain two difficulties possibly resolvable into one the plasticity already referred to as involved in all biological development and hereditary transmission; as to these, psychology is almost wholly in the dark.^f

Authorities—Historical: There are few good works on the history of psychology; the only one in English, R. Blakey, *History of the Philosophy of Mind from the Earliest Period to the Present Time* (London, 1848), is poor. F. A. Caruss *Geschichte der Psychologie* (Leipzig, 1808) is at least useful for reference. A work bearing the same title by H. Siebeck (the first part consisting of two divisions (i.) *Die Psychologie von Aristoteles*, (ii.) *Die Psychologie von Aristoteles bis zu Thomas von Aquino* (Gotha, 1880 and 1884) is thoroughly and carefully done. Siebeck has also contributed a series of articles, *Zur Psychologie der Scholastik*, to the *Archiv f. d. Gesch. d. Philos.*

(vols. i.ii.). *Die Philosophie in ihrer Geschichte (I. Psychologie)*, by Professor Harms (Berlin, 1878), is also good. T. A. Ribots *La Psychologie anglaise contemporaine* (3rd ed., 1892) and *La Psychologie allemande contemporaine* (2nd ed., 1885) are lucid and concise in style, though the latter work in places is superficial and inaccurate. Of Max Dessoirs *Geschichte der neueren deutschen Psychologie* the section dealing with the 17th-century writers prior, to Kant went into a second edition in 1897; it contains a useful collection of material. From *Les Origines de la psychologie contemporaine* (2nd ed., 1908), by the neo-Thomist scholar Mgr. D. Mercier, much may be learnt, though its purpose is not primarily historical.

Positive: The recent output of systematic works on psychology has been voluminous. Among the most important of these may be mentioned J. Sullys *The Human Mind* (2 vols., 1892); W. James, *Principles of Psychology* (2 vols., 1890); G. F. Stout, *Analytic Psychology* (2 vols., 1896); *A Manual of Psychology* (2nd ed., 1901); H. Hoffding, *Outlines of Psychology* (1891; translated from the Danish); G. T. Ladd, *Psychology, Descriptive and Explanatory* (1894); W. Wundt, *Grundriss der Psychologie* (4th ed., 1901, translated); F. Jodl, *Lehebuch der Psychologie* (2 vols., 2nd ed., 1902). Dealing mainly with experimental psychology are: Kulpe, *Grundriss der Psychologie auf experimenteller Grundlage dargestellt* (1893; translated); Ebbinghaus, *Grundzüge der Psychologie* (3rd ed., 1908), Bd. I.; and E. B. Titchener, *Experimental Psychology as a Manual of Laboratory Practice* (2 vols., 1901); C. S. Myers, *Experimental Psychology* (1908).

Of the older more advanced textbooks Professor Volkmanns *Lehrbuch der Psychologie* (2 vols., 3rd ed., 1885; edited by Cornelius) is written in the main from a Herbartian standpoint. To the honored name of Lotze belongs a distinguished place in any enumeration of modern productions in philosophy; his *Medicinische Psychologie* (Göttingen, 1852) is still valuable. A large part of his *Mikrokosmos* (3 vols., 3rd ed., 1876-1880; trans. into English, 2 vols., 1885) and one book of his *Metaphysik* (2nd ed., 1884 also trans. into English) are, however, devoted to psychology. The doctrine of evolution has been as fruitful in this study as in other sciences that deal with life. In this respect Herbert Spencers *Principles of Psychology* (2 vols., 3rd ed., 1881) and *Data of Ethics* (1879) occupy a foremost place. Dr Alexander Bains standard volumes, *The Senses and the Intellect* (4th ed., 1894) and *The Emotions and the Will* (3rd ed., 1875), contain a good deal of physiological psychology, but no adequate recognition of the importance of the modern theory of development. Wundts *Physiologische Psychologie* (~ vols., 6th ed., 1908 seq) is indispensable to the student of this subject.

Specially interesting as treating psychological problems on new lines are *La Psychologie des idées-forces*, by A. Fouille (2 vols., 1893)—perhaps the best French contribution to recent psychology; its cardinal point is the fundamentally dynamical character of the psychical. R. Avenarius, *Kritik der reinen Erfahrung* (2 vols., 1888-1890; 2nd ed., 1908), is an attempt, on the model of Kirchhoff and Machs treatment of physics, to describe experience, taking the relation of the central nervous system to the environment as startingpoint. Its strange and forbidding terminology prevented the timely recognition of its merits; but since the authors death in 1896 from overwork and disappointment quite a literature has grown up, partly expository, partly controversial, devoted to this latest critique. H. Cornelius, *Psychologie als Erfahrungswissenschaft* (1897), rather epistemological than psychological, claims affinity with the critiques of Kant and Avenarius. In J. Rehmkes *Lehrbuch der allgemeinen Psychologie* (and ed., 1905) a psychology with a soul, and claiming to be philosophy as well the problems of perception and of psychoneural interaction are discussed at length. F. Brentano, *Psychologie von empirischen Standpunkte* (1874), vol. i., treats presentations and judgments as fundamentally distinct, feeling and willing, on the other hand, as fundamentally one. His influence on Austrian psychologists has been considerable, and is more or less apparent in the following: K. Twardowski, *Zur Lehre vom Inhalt und Gegenstand der Vorstellungen* (1894); A. Meinong, *Psychologisch-ethische Untersuchungen zur Werththeorie* (1894), and also numerous important papers; v. Ehrenfels, *System der Werththeorie* (2 vols., 1897-1898); A. Hfler, *Psychologie* (1897).

Important as treating of particular topics are C. Stumpf, *Tonpsychologie* (2 vols., 1883-1890); A. Lehmann, *Die Hauptgesetze des menschlichen Gefühlsleben* (trans. from the Danish; 1892); various monographs by T. A. Ribot on diseases of memory, will, personality, on the psychology of attention, of the emotions, of general ideas, &c., all translated into English; J. M. Baldwin, *Social and Ethical Interpretations in Mental Development* (1897); ~V. Wundt, *Völkerpsychologie* (3 vols., 1900); W. McDougall, *An Introduction to Social Psychology* (1908).

There are several periodicals devoted exclusively to psychology, the chief being the *American Journal of Psychology*; the *Psychological Review*; *Zeitschrift für Psychologie und Physiologie der Sinnesorgane*; *L'Année psychologique*; the *British Journal of Psychology*; and *Archiv für die gesammte Psychologie*. (J. W.*)

The Lost Keys of Freemasonry/Chapter 1

←Prologue *./ by Manly Palmer* Chapter 2→
Hall
The Eternal Quest

The average Mason, as well as the modern student of Masonic ideals, little realizes the cosmic obligation he takes upon himself when he begins his search for the sacred truths of Nature as they are concealed in the ancient and modern rituals. He must not lightly regard his vows, and if he would not bring upon himself years and ages of suffering he must cease to consider Freemasonry solely as a social order only a few centuries old. He must realize that the ancient mystic teachings as perpetuated in the modern rites are sacred, and that powers unseen and unrecognized mold the destiny of those who consciously and of their own free will take upon themselves the obligations of the Fraternity.

Freemasonry is not a material thing: it is a science of the soul; it is not a creed or doctrine but a universal expression of the Divine Wisdom.^[1] The coming together of medieval guilds or even the building of Solomon's temple as it is understood today has little, if anything, to do with the true origin of Freemasonry, for Masonry does not deal with personalities. In its highest sense, it is neither historical nor archaeological, but is a divine symbolic language perpetuating under certain concrete symbols the sacred mysteries of the ancients. Only those who see in it a cosmic study, a life work, a divine inspiration to better thinking, better feeling, and better living, with the spiritual attainment of enlightenment as the end, and with the daily life of the true Mason as the means, have gained even the slightest insight into the true mysteries of the ancient rites.

The age of the Masonic school is not to be calculated by hundreds or even thousands of years, for it never had any origin in the worlds of form. The world as we see it is merely an experimental laboratory in which man is laboring to build and express greater and more perfect vehicles. Into this laboratory pour myriads of rays descending from the cosmic hierarchies.^[2] These mighty globes and orbs which focus their energies upon mankind and mold its destiny do so in an orderly manner, each in its own way and place, and it is the working of these mystic hierarchies in the universe which forms the pattern around which the Masonic school has been built, for the true lodge of the Mason is the universe. Freed of limitations of creed and sect, he stands a master of all faiths, and those who take up the study of Freemasonry without realizing the depth, the beauty, and the spiritual power of its philosophy can never gain anything of permanence from their studies. The age of the Mystery Schools can be traced by the student back to the dawn of time, ages and aeons ago, when the temple of the Solar Man was in the making. That was the first Temple of the King, and therein were given and laid down the true mysteries of the ancient lodge, and it was the gods of creation and the spirits of the dawn who first tiled the Master's lodge.

The initiated brother realizes that his so called symbols and rituals are merely blinds fabricated by the wise to perpetuate ideas incomprehensible to the average individual. He also realizes that few Masons of today know or appreciate the mystic meaning concealed within these rituals. With religious faith we perpetuate the form, worshipping it instead of the life, but those who have not recognized the truth in the crystallized ritual, those who have not liberated the spiritual germ from the shell of empty words, are not Masons, regardless of their physical degrees and outward honors.

In the work we are taking up it is not the intention to dwell upon the modern concepts of the Craft but to consider Freemasonry as it really is to those who know, a great cosmic organism whose true brothers and children are tied together not by spoken oaths but by lives so lived that they are capable of seeing through the blank wall and opening the window which is now concealed by the rubbish of materiality. When this is done and the mysteries of the universe unfold before the aspiring candidate, then in truth he discovers what Freemasonry really is. Its material aspects interest him no longer for he has unmasked the Mystery School which he is capable of recognizing only when he himself has spiritually become a member of it.

Those who have examined and studied its ancient lore have no doubt that Freemasonry, like the universe itself, which is the greatest of all schools, deals with the unfolding of a three-fold principle; for all the universe is governed by the same three kings who are called the builders of the Masonic temple. They are not personalities but principles, great intelligent energies and powers which in God, man, and the universe have charge of the molding of cosmic substance into the habitation of the living king, the temple built through the ages first of unconscious and then conscious effort on the part of every individual who is expressing in his daily life the creative principles of these three kings.

The true brodaer of the ancient Craft realized that the completion of the temple he was building to the King of the Universe was a duty or rather a privilege which he owed to his God, to his brother, and to himself. He knew that certain steps must be taken and that his temple must be built according to the plan. Today it seems that the plan is lost, however, for in the majority of cases Freemasonry is no longer an operative art but is merely a speculative idea until each brother, reading the mystery of his symbols and pondering over the beautiful allegories unfolded in his ritual, realizes that he himself contains the keys and the plans so long lost to his Craft and that if he would ever learn Freemasonry he must unlock its doors with the key wrought from the base metals of his own being.

True Freemasonry is esoteric; it is not a thing of this world. All that we have here is a link, a doorway, through which the student may pass into the unknown. Freemasonry has nothing to do with things of form save that it realizes form is molded by and manifests the life it contains. Consequently the student is seeking so to mold his life that the form will glorify the God whose temple he is slowly building as he awakens one by one the workmen within himself and directs them to carry out the plan that has been given him out of heaven.

So far as it is possible to discover, ancient Freemasonry and the beautiful cosmic allegories that it teaches, perpetuated through hundreds of lodges and ancient mysteries, forms the oldest of the Mystery Schools;^[3] and its preservation through the ages has not depended upon itself as an exoteric body of partly evolved individuals but upon a concealed brotherhood, the exoteric side of Freemasonry. All the great mystery, Schools have hierarchies upon the spiritual planes of Nature which are expressing themselves in this world through creeds and organizations. The true student seeks to lift himself from the exoteric body upward spiritually until he joins the esoteric group which, without a lodge on the physical plane of Nature, is far greater than all the lodges of which it is the central fire. The spiritual instructors of humanity are forced to labor in the concrete world with things comprehensible to the concrete mind, and there man begins to comprehend the meaning of the allegories and symbols which surround his exoteric work as soon as he prepares himself to receive them. The true Mason realizes that the work of the Mystery Schools in the world is of an inclusive rather than an exclusive nature, and that the only lodge which is broad enough to express his ideals is one whose dome is the heavens, whose pillars are the corners of creation, whose checker-board floor is composed of the crossing currents of human emotion and whose altar is the human heart. Creeds cannot bind the true seeker for truth. Realizing the unity of all truth, the Mason also realizes that the hierarchies laboring with him have given him in his varying degrees the mystic spiritual rituals of all the Mystery Schools in the world, and if he would fill his place in the plan he must not enter this sacred study for what he can get out of it but that he may learn how to serve.

In Freemasonry is concealed the mystery of creation, the answer to the problem of existence, and the path the student must tread in order to join those who are really the living powers behind the thrones of modern national and international affairs. The true student realizes most of all that the taking of degrees does not make a man a Mason. A Mason is not appointed; he is evolved and he must realize that the position he holds in the exoteric lodge means nothing compared to his position in the spiritual lodge of life. He must forever discard the idea that he can be told or instructed in the sacred Mysteries or that his being a member of an organization improves him in any way. He must realize that his duty is to build and evolve the sacred teachings in his own being: that nothing but his own purified being can unlock the door to the sealed libraries of human consciousness, and that his Masonic rites must eternally be speculative until he makes them operative by living the life of the mystic Mason. His karmic responsibilities increase with his opportunities. Those who are surrounded with knowledge and opportunity for self-improvement

and make nothing of these opportunities are the lazy workmen who will be spiritually, if not physically, cast out of the temple of the king.

The Masonic order is not a mere social organization, but is composed of all those who have banded themselves together to learn and apply the principles of mysticism and the occult rites. They are (or should be) philosophers, sages and sober-minded individuals who have dedicated themselves upon the Masonic altar and vowed by all they hold dear that the world shall be better, wiser, and happier because they have lived. Those who enter these mystic rites and pass between the pillars seeking either prestige or commercial advantage are blasphemers, and while in this world we may count them as successful, they are the cosmic failures who have barred themselves out from the true rite whose keynote is unselfishness and whose workers have renounced the things of earth.

In ancient times many years of preparation were required before the neophyte was permitted to enter the temple of the Mysteries. In this way the shallow, the curious, the faint of heart, and those unable to withstand the temptations of life were automatically eliminated by their inability to meet the requirements for admission. The successful candidate who did pass between the pillars entered the temple, keenly realizing his sublime opportunity, his divine obligation, and the mystic privilege which he had earned for himself through years of special preparation. Only those are truly Masons who enter their temple in reverence, who seek not the ephemeral things of life but the treasures which are eternal, whose sole desire is to know the true mystery of the Craft that they may join as honest workmen those who have gone before as builders of the Universal Temple. The Masonic ritual is not a ceremony, but a life to be lived. Those alone are truly Masons who, dedicating their lives and their fortunes upon the altar of the living flame, undertake the construction of the one universal building of which they are the workmen and their God the living Architect. When we have Masons like this the Craft will again be operative, the flaming triangle will shine forth with greater lustre, the dead builder will rise from his tomb, and the Lost Word so long concealed from the profane will blaze forth again with the power that makes all things new.

In the pages that follow have been set down a number of thoughts for the study and consideration of temple builders, craftsmen and artisans alike. They are the keys which, if only read, will leave the student still in ignorance but, if lived, will change the speculative Masonry of today into the operative Masonry of tomorrow, when each builder, realizing his own place, will see things which he never saw before, not because they were not there but because he was blind. And there are none so blind as those who will not see.

THOUGHTLESSNESS

The noblest tool of the Mason is his mind, but its value is measured by the use made of it. Thoughtful in all things, the aspiring candidate to divine wisdom attains reality in sincere desire, in meditation, and in silence. Let the keynote of the Craft, and of the Ritual, be written in blazing letters: **THINK OF ME**. What is the meaning of this mystic maze of symbols, rites and rituals? **THINK!** What does life mean, with the criss-crossings of human relationship, the endless pageantry of qualities masquerading in a carnival of fools? **THINK!** What is the plan behind it all, and who the planner? Where dwells the Great Architect, and what is the tracing board upon which he designs? **THINK!** What is the human soul, and why the endless yearning to ends unknown, along pathways where each must wander unaccompanied? Why mind, why soul, why spirit, and in truth, why anything? **THINK!** Is there an answer? If so, where will the truth be found? Think, Brothers of the Craft, think deeply; for if truth exists, you have it, and if truth be within the reach of living creature, what other goal is worth the struggle?

ENDNOTES

- [1] This term is used as synonymous with a very secret and sacred philosophy that has existed for all time, and has been the inspiration of the great saints and sages of all ages, i. e., the perfect wisdom of God, revealing itself through a secret hierarchy of illumined minds.
- [2] The groups of celestial intelligences governing the creative processes in cosmos.
- [3] This is a term used by the ancients to designate the esoteric side of their religious ceremonials. The candidate passing through these mysteries was initiated into the mysteries of Nature and the arcane side of natural law.

1911 Encyclopædia Britannica/Brain

←Braila 1911 Encyclopædia Britannica, Volume Brainerd, David→

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Brain

See also Brain on Wikipedia, and our 1911 Encyclopædia Britannica disclaimer.

BRAIN (A.S. *braegen*), that part of the central nervous system which in vertebrate animals is contained within the cranium or skull; it is divided into the great brain or cerebrum, the hind brain or cerebellum, and the medulla oblongata, which is the transitional part between the spinal cord and the other two parts already named. Except where stated, we deal here primarily with the brain in man.

I. Anatomy

Membranes of the Human Brain.

Three membranes named the dura mater, arachnoid and pia mater cover the brain and lie between it and the cranial cavity. The most external of the three is the dura mater, which consists of a cranial and a spinal portion. The cranial part is in contact with the inner table

Fig. 1. - Dura Mater and Cranial Sinuses.

1. Falx cerebri.
2. Tentorium. petrosal sinus.
- 3,3 Superior longitudinal sinus.
4. Lateral sinus.
5. Internal jugular vein.
6. Occipital sinus. together.
- 6'. Torcular Herophili.
7. Inferior longitudinal sinus.
8. Veins of Galen.
- 9 and 10. Superior and inferior
11. Cavernous sinus.
12. Circular sinus which connects the two cavernous sinuses
13. Ophthalmic vein, from 15, the eyeball.
14. Crista galli of ethmoid bone.

of the skull, and is adherent along the lines of the sutures and to the margins of the foramina, which transmit the nerves, more especially to the foramen magnum. It forms, therefore, for these bones an internal periosteum, and the meningeal arteries which ramify in it are the nutrient arteries of the inner table. As the growth of bone is more active in infancy and youth than in the adult, the adhesion between the dura mater and the cranial bones is greater in early

life than at maturity. From the inner surface of the dura mater strong bands pass into the cranial cavity, and form partitions between certain of the subdivisions of the brain. A vertical longitudinal mesial band, named, from its sickle shape, *falx cerebri*, dips between the two hemispheres of the cerebrum. A smaller sickleshaped vertical mesial band, the *falx cerebelli*, attached to the internal occipital crest, passes between the two hemispheres of the cerebellum. A large band arches forward in the horizontal plane of the cavity, from the transverse groove in the occipital bone to the clinoid processes of the sphenoid, and is attached laterally to the upper border of the petrous part of each temporal bone. It separates the cerebrum from the cerebellum, and, as it forms a tent-like covering for the latter, is named *tentorium cerebella*. Along certain lines the cranial dura mater splits into two layers to form tubular passages for the transmission of venous blood. These passages are named the venous blood sinuses of the dura mater, and they are lodged in the grooves on the inner surface of the skull referred to in the description of the cranial bones. Opening into these sinuses are numerous veins which convey from the brain the blood that has been circulating through it; and two of these sinuses, called cavernous, which lie at the sides of the body of the sphenoid bone, receive the ophthalmic veins from the eyeballs situated in the orbital cavities. These blood sinuses pass usually from before backwards: a superior longitudinal along the upper border of the *falx cerebri* as far as the internal occipital protuberance; an inferior longitudinal along its lower border as far as the *tentorium*, where it joins the straight sinus, which passes, back as far as the same protuberance. One or two small occipital sinuses, which lie in the *falx cerebelli*, also pass to join the straight and longitudinal sinuses opposite this protuberance; several currents of blood meet, therefore, at this spot, and as Herophilus supposed that a sort of whirlpool was formed in the blood, the name *torcular Herophili* has been used to express the meeting of these sinuses. From the *torcular* the blood is drained away by two large sinuses, named lateral, which curve forward and downward to the jugular foramina to terminate in the internal jugular veins. In its course each lateral sinus receives two petrosal sinuses, which pass from the cavernous sinus backwards along the upper and lower borders of the petrous part of the temporal bone. The dura mater consists of a tough, fibrous membrane, somewhat flocculent externally, but smooth, glistening, and free on its inner surface. The inner surface has the appearance of a serous membrane, and when examined microscopically is seen to consist of a layer of squamous endothelial cells. Hence the dura mater is sometimes called a fibroserous membrane. The dura mater is well provided with lymph vessels, which in all probability open by stomata on the free inner surface. Between the dura mater and the subjacent arachnoid membrane is a fine space containing a minute quantity of limpid serum, which moistens the smooth inner surface of the dura and the corresponding smooth outer surface of the arachnoid. It is regarded as equivalent to the cavity of a serous membrane, and is named the *sub-dural space*.

Arachnoid Mater. - The arachnoid is a membrane of great delicacy and transparency, which loosely envelops both the brain and spinal cord. It is separated from these organs by the pia mater; but between it and the latter membrane is a distinct space, called subarachnoid. The sub-arachnoid space is more distinctly marked beneath the spinal than beneath the cerebral parts of the membrane, which forms a looser investment for the cord than for the brain. At the base of the brain, and opposite the fissures between the convolutions of the cerebrum, the interval between the arachnoid and the pia mater can, however, always be seen, for the arachnoid does not, like the pia mater, clothe the sides of the fissures, but passes directly across between the summits of adjacent convolutions. The subarachnoid space is subdivided into numerous freely-communicating loculi by bundles of delicate areolar tissue, which bundles are invested, as Key and Retzius have shown, by a layer of squamous endothelium. The space contains a limpid cerebro-spinal fluid, which varies in quantity from 2 drachms to 2 oz., and is most plentiful in the dilatations at the base of the brain known as *cisternae*. It should be clearly understood that there is no communication between the subdural and sub-arachnoid spaces, but that the latter communicates with the ventricles through openings in the roof of the fourth, and in the descending cornua of the lateral ventricles.

When the skull cap is removed, clusters of granular bodies are usually to be seen imbedded in the dura mater on each side of the superior longitudinal sinus; these are named the Pacchionian bodies. When traced through the dura mater they are found to spring from the arachnoid. The observations of Luschka and Cleland have proved that villous processes invariably grow from the free surface of that membrane, and that when these villi greatly increase in size

they form the bodies in question. Sometimes the Pacchionian bodies greatly hypertrophy, occasioning absorption of the bones of the cranial vault and depressions on the upper surface of the brain.

Pia Mater. - This membrane closely invests the whole outer surface of the brain. It dips into the fissures between the convolutions, and

Optic nerve

Infundibulum

Tuber cinereum

Corpora mammillaria

Oculo-motor nerve(III.)

Trochlear nerve(IV.) winding round the crus cerebri

Trigeminal nerve (V.)

Abducent nerve (VI.)

Facial nerve (VII.)

Auditory nerve (Viii.)

Vago-glossopharyngeal nerve (IX. and X.)

Hypoglossal (nerve XII.)

Spinal accessory nerve (XI.)

First cervical nerve

Optic chiasma

Optic tract

Corpus geniculatum externum

Corpus geniculatum internum

Locus perforatus posticus.

Middle peduncle of the cerebellum

Restiform body

Olive

Pyramid

Anterior superficial arcuate fibres

Decussation of pyramids

After D. J. Cunningham's *Text-book of Anatomy*

Fig. 2. - Front View of the Medulla, Pons and Mesencephalon of a full-time Human Foetus.

a wide prolongation, named velum interpositum, lies in the interior of the cerebrum. With a little care it can be stripped off the brain without causing injury to its substance. At the base of the brain the pia mater is prolonged on to the roots of the cranial nerves. This membrane consists of a delicate connective tissue, in which the arteries of the brain and spinal cord ramify and subdivide into small branches before they penetrate the nervous substance, and in which the veins conveying the blood from the nerve centres lie before they open into the blood sinuses of the cranial dura mater and the extradural venous plexus of the spinal canal.

Medulla Oblongata.

The *Medulla Oblongata* rests upon the basi-occipital. It is somewhat pyramidal in form, about 14 in. long, and 1 in. broad in its widest part. It is a bilateral organ, and is divided into a right and a left half by shallow anterior and posterior median fissures, continuous with the corresponding fissures in the spinal cord; the posterior fissure ends

above in the fourth ventricle. Each half is subdivided into elongated tracts of nervous matter. Next to, and parallel with the anterior fissure is the anterior pyramid (see fig. 2). This pyramid is continuous below with the cord, and the place of continuity is marked by the passage across the fissure of three or four bundles of nerve fibres, from each half of the cord to the opposite anterior pyramid; this crossing is called the decussation of the pyramids. To the side of the pyramid, and separated from it by a faint fissure, is the olivary fasciculus, which at its upper end is elevated into the projecting oval-shaped olivary body. Behind the olivary body in the lower half of the medulla are three tracts named from before backward the funiculus of Rolando, the funiculus cuneatus and the funiculus gracilis (see fig. 3). The two funiculi graciles of opposite sides are in contact in the mid dorsal line and have between them the postero median fissure. When the fourth ventricle is reached they diverge to form the lower limit of that diamond-shaped space and are slightly swollen to form the clavae. All these three bundles appear to be continued up into the cerebellum as the restiform bodies or inferior cerebellar peduncles, but really the continuity is very slight, as the restiform bodies are formed from the direct cerebellar tracts of the spinal cord joining with the superficial arcuate fibres which curve back just below the olivary bodies. The upper part of the fourth ventricle is bounded by the superior cerebellar peduncles which meet just before the inferior quadrigeminal bodies are reached. Stretching across between them is the superior medullary velum or valve of Vieussens, forming the upper part of the roof, while the inferior velum forms the lower part, and has an opening called the foramen of Majendie, through which the sub-arachnoid space communicates with the ventricle. The floor (see fig. 3) has two triangular depressions on each side of a median furrow; these are the superior and inferior fovea, the significance of which will be noticed in the development of the rhombencephalon. Running horizontally across the middle of the floor are the striae acusticae which are continued into the auditory nerve. The floor of the fourth ventricle is of special

Taenia thalami

Superior peduncle of the cerebellum

Middle peduncle of the cerebellum

Striae acusticae

Area acusticae

Trigonum vagi

Cuneate tubercle

Funiculus gracilis

Pineal body

Superior quadrigeminal body

Inferior quadrigeminal body

Crus cerebri

Pontine part of floor of ventricle IV.

Eminentia teres

Fovea superior

Restiform body

Trigonum hypoglossi

Clava Rolandic tubercle

Funiculus cuneatus

From Cunningham,

Fig. 3. - Back View of the Medulla, Pons and Mesencephalon of a full-time Human Foetus.

interest because a little way from the surface are the deep origins of all the cranial nerves from the fifth to the twelfth. (See Nerve: cranial). If a section is made transversely through the medulla about the apex of the fourth

ventricle three important bundles of fibres are cut close to the mid line on each side (see fig. 4). The most anterior is the pyramid or motor tract, the decussation of which has been seen. Behind this is the mesial fillet or sensory tract, which has also decussated a little below the point of section, while farther back still is the posterior longitudinal bundle which is coming

Gracile nucleus

Cuneate strand

Cuneate nucleus

Fasciculus solitarius

Spinal root of trigeminal nerve

Substantia gelatinosa Rolandi

Deep arcuate fibres

Hypoglossal nerve

Anterior superficial arcuate fibres

Inferior olivary nucleus

Mesial accessory olivary nucleus

Superficial anterior arcuate fibres

Central canal

Hypoglossal nucleus

Posterior longitudinal fasciculus

Hypoglossal nerve

Raphe Fillet

From Cunningham, *Text-book of Anatomy*.

Fig. 4. - Transverse Section through the Human Medulla in the Lower Olivary Region.

up from the anterior basis bundle of the cord. External to and behind the pyramid is the crenated section of the olivary nucleus, the surface bulging of which forms the olivary body.

The grey matter of the medulla oblongata, which contains numerous multipolar nerve cells, is in part continuous with the grey matter of the spinal cord, and in part consists of independent masses. As the grey matter of the cord enters the medulla it loses its crescentic arrangement. The posterior cornua are thrown outwards towards the surface, lose their pointed form, and dilate into rounded masses named the grey tubercles of Rolando. The grey matter of the anterior cornua is cut off from the rest by the decussating pyramids and finally disappears. The formatio reticularis which is feebly developed in the cord becomes well developed in the medulla. In the lower part of the medulla a central canal continuous with that of the cord exists, but when the clavae on the opposite sides of the medulla diverge from each other, the central canal loses its posterior boundary, and dilates into the cavity of the fourth ventricle. The grey matter in the interior of the medulla appears, therefore, on the floor of the ventricle and is continuous with the grey matter near the central canal of the cord. This grey matter forms collections of nerve cells, which are the centres of origin of several cranial nerves. Crossing the anterior surface of the medulla oblongata, immediately below the pons, in the majority of mammals is a transverse arrangement of fibres forming the trapezium, which contains a grey nucleus, named by van der Kolk the superior olive. In the human brain the trapezium is concealed by the lower transverse fibres of the pons, but when sections are made through it, as L. Clarke pointed out, the grey matter of the superior olive can be seen. These fibres of the trapezium come from the cochlear nucleus of the auditory nerve, and run up as the lateral fillet.

The *Pons Varolii* or Bridge is cuboidal in form (see fig. 2): its anterior surface rests upon the dorsum sellae of the sphenoid, and is marked by a median longitudinal groove; its inferior surface receives the pyramidal and olivary

tracts of the medulla oblongata; at its superior surface are the two crura cerebri; each lateral surface is in relation to a hemisphere of the cerebellum, and a peduncle passes from the pons into the interior of each hemisphere; the posterior surface forms in part the upper portion of the floor of the fourth ventricle, and in part is in contact with the corpora quadrigemina.

The pons consists of white and grey matter: the nerve fibres of the white matter pass through the substance of the pons, in either a transverse or a longitudinal direction. The transverse fibres go from one hemisphere of the cerebellum to that of the opposite side; some are situated on the anterior surface of the pons, and form its superficial transverse fibres, whilst others pass through its substance and form the deep transverse fibres. The longitudinal fibres ascend from the medulla oblongata and leave the pons by emerging from its upper surface as fibres of the two crura cerebri. The pons possesses a median raphe continuous with that of the medulla oblongata, and formed like it by a decussation of fibres in the mesial plane. In a horizontal section through the pons and upper part of the fourth ventricle the superficial transverse fibres are seen most anteriorly; then come the anterior pyramidal fibres, then the deep transverse

Spinal root of fifth nerve

Substantia gelatinosa Rolandi

Facial nerve

Facial nucleus

Superior olive

Central tegmental tract

Fillet

Middle peduncle of cerebellum

Restiform body

Substantia gelatinosa Rolandi

Vestibular nerve (VIII)

Spinal root of fifth nerve

Facial nucleus

Facial nerve

Superior olive

Trapezoid fibres

Transverse fibres pons

Pyramidal bundles

Transverse fibres of pons

From Cunningham, *Text-book of Anatomy*

Fig. 5. - Section through the Lower Part of the Human Pons Varolii immediately above the Medulla.

pontine fibres, then the fillet, while most posteriorly and close to the floor of the fourth ventricle the posterior longitudinal bundle is seen (see fig. 5).

The grey matter of the pons is scattered irregularly through its substance, and appears on its posterior surface; but not on the anterior surface, composed exclusively of the superficial transverse fibres.

The Cerebellum.

The Cerebellum, Little Brain, or After Brain occupies the inferior pair of occipital fossae, and lies below the plane of the tentorium cerebelli. It consists of two hemispheres or lateral lobes, and of a median or central lobe, which in human anatomy is called the vermis. It is connected below with the medulla oblongata by the two restiform bodies

which form its inferior peduncles, and above with the corpora quadrigemina of the cerebrum by two bands, which form its *superior peduncles*; whilst the two hemispheres are connected together by the transverse fibres of the pons, which form the *middle peduncles* of the cerebellum. On the superior or tentorial surface of the cerebellum the median or vermiform lobe is a mere elevation, but on its inferior or occipital surface this lobe forms a well-defined process, which lies at the bottom of a deep fossa or *vallecula*; this fossa is prolonged to the posterior border of the cerebellum, and forms there a deep notch which separates the two hemispheres from each other; in this notch the falx cerebelli is lodged. Extending horizontally backwards from the middle cerebellar peduncle, along the outer border of each hemisphere is the *great horizontal fissure*, which divides the hemisphere into its tentorial and occipital surfaces. Each of these surfaces is again subdivided by fissures into smaller lobes, of which the most important are the *amygdala* or *tonsil*, which forms the lateral boundary of the anterior part of the vallecula, and the flocculus, which is situated immediately behind the middle peduncle of the cerebellum. The inferior vermiform process is subdivided into a posterior part or *pyramid*; an elevation or *uvula*, situated between the two tonsils; and an anterior pointed process or *nodule*. Stretching between the two flocculi, and attached midway to the sides of the nodule, is a thin, white, semilunar-shaped plate of nervous matter, called the inferior *medullary velum*.

The whole outer surface of the cerebellum possesses a characteristic foliated or laminated appearance, due to its subdivision into multitudes of thin plates or lamellae by numerous fissures. The cerebellum consists of both grey and white matter. The grey matter forms the exterior or cortex of the lamellae, and passes from one to the other across the bottoms of the several fissures. The white matter lies in the interior of the organ, and extends into the core of each lamella. When a vertical section is made through the organ, the prolongations of white matter branching off into the interior of the several lamellae give to the section an arborescent appearance, known by the fanciful name of *arbor vitæ* (see fig. 6). Independent masses of grey matter are, however, found in the interior of the cerebellum. If the hemisphere be cut through a little to the outer side of the median lobe, a zigzag arrangement of grey matter, similar in appearance and structure to the nucleus of the olivary body in the medulla oblongata, and known as the *corpus dentatum* of the cerebellum, is seen; it lies in the midst of the white core of the hemisphere, and encloses white fibres, which leave the interior of the corpus at its inner and lower side. On the mesial side of this corpus dentatum lie three smaller nuclei. The white matter is more abundant in the hemispheres than in the median lobe, and is for the most part directly continuous with the fibres of the peduncles of the cerebellum. Thus the restiform or inferior peduncles pass from below upward through the white core, to end in the grey matter of the tentorial surface of the cerebellum, more especially in that of the central lobe; on their way they are connected with the

Fornix

Foramen of Monro

Septum lucidum

Genu of corpus callosum

Anterior commissure

Corpus mamillare

Lamina cinerea

Optic nerve

Pituitary body

Tuber cinereum

Third nerve

Pons

Valve of Vieussens

Ventricle IV

Medulla

Aqueduct of Sylvius

Culmen

Declive

Folium cacuminis

Tuber valvulae

Pyramid

Uvula

Central lobule

Nodule

Choroid plexus in ventricle IV

From Cunningham, *Text-book of Anatomy*.

Fig. 6. - Mesial Section through the Corpus Callosum, the Mesencephalon, the Pons, Medulla and Cerebellum. Showing the third and fourth ventricles joined by the aqueduct of Sylvius

grey matter of the corpus dentatum. The superior peduncles, which descend from the corpora quadrigemina of the cerebrum, form connexions mainly with the corpus dentatum. The middle peduncles form a large proportion of the white core, and their fibres terminate in the grey matter of the foliated cortex of the hemispheres. It has been noticed that those fibres which are lowest in the pons go to the upper surface of the cerebellum and vice versa.

Histology of the Cerebellum. - The white centre of the cerebellum is composed of numbers of medullated nerve fibres coursing to and from the grey matter of the cortex. These fibres are supported in a groundwork of neuroglial tissue, their nutrition being supplied by a small number of blood vessels.

The cortex (see fig. 7) consists of a thin layer of grey material forming an outer coat of somewhat varying thickness over the whole external surface of the laminae of the organ. When examined microscopically it is found to be made up of two layers, an outer "molecular" and an inner "granular" layer. Forming a layer lying at the junction of these two are a number of cells, the cells of Purkinje, which constitute the most characteristic feature of the cerebellum. The bodies of these cells are pear-shaped. Their inner ends taper and finally end in a nerve fibre which may be traced into the white centre. In their course through the granule layer they give off a number of branching collaterals, some turning back and passing between the cells of Purkinje into the molecular layer. Their inner ends terminate in one or sometimes two stout processes which repeatedly branch dichotomously, thus forming a very elaborate dendron in the molecular layer. The branchings of this dendron

From Cunningham, *Text-book of Anatomy*

Fig. 7. - Transverse Section through a Cerebellar Folium (after Milker). Treated by the Golgi method.

P. Axon of cell of Purkinje.

GR1. Axons of granule cells in molecular layer cut transversely.

F. Moss fibres.

K and K1. Fibres from white core of folium ending in molecular layer in connexion with the dendrites of the cells of Purkinje.

M1. Basket-cells.

ZK. Basket-work around cells of Purkinje.

GL. Neuroglial cell.

M. Small cell of the molecular layer.

N. Axon of an association cell.

GR. Granule cell.

are also highly characteristic in that they are approximately restricted to a single plane like an espalier fruit tree, and those for neighbouring cells are all parallel to one another and at right angles to the general direction of the folium to which they belong. In the molecular layer are found two types of cells. The most abundant are the so-called basket cells which are distributed through the whole thickness of the layer. They have a rounded body giving off many branching dendrons to their immediate neighbourhood and one long neuraxon which runs parallel to the surface and to the long axis of the lamina. In its course, this gives off numerous collaterals which run downward to the bodies of Purkinje's cells. Their terminal branchings together with similar terminals of other collaterals form the basket-work around the bodies of these cells.

The granular layer is sometimes termed the rust-coloured layer from its appearance to the naked eye. It contains two types of nerve cells, the small granule cells and the large granule cells. The former are the more numerous. They give off a number of short dendrites with claw-like endings, and a fine non-medullated neuraxon process. This runs upward to the cortex, where it divides into two branches in the form of a T. The branches run for some distance parallel to the axis of the folium and terminate in unbranched ends.

The large granule cells are multipolar cells, many of the branchings penetrating well into the molecular layer. The neuraxon process turns into the opposite direction and forms a richly branching system through the entire thickness of the granular layer. There is also an abundant plexus of fine medullated fibres within the granule layer.

The fibres of the white central matter are partly centrifugal, the neuraxons of the cells of Purkinje, and partly centripetal. The position of the cells of these latter fibres is not known. The fibres give rise to an abundant plexus of fibrils in the granular layer, and many reaching into the molecular layer ramify there, especially in the immediate neighbourhood of the dendrites of Purkinje's cells. From the appearance of their plexus of fibrils these are sometimes called *moss fibres*.

The *Fourth Ventricle* is the dilated upper end of the central canal of the medulla oblongata. Its shape is like an heraldic lozenge. Its floor is formed by the grey matter of the posterior surfaces of the medulla oblongata and pons, already described (see figs. 3 and 6); its roof partly by the inferior vermis of the cerebellum, the nodule of which projects into its cavity, and partly by a thin layer, called valve of Vieussens, or superior medullary velum; its lower lateral boundaries by the divergent clavae and restiform bodies; its upper lateral boundaries by the superior peduncles of the cerebellum. The inferior medullary velum, a reflection of the pia mater and epithelium from the back of the medulla to the inferior vermis, closes it in below. Above, it communicates with the aqueduct of Sylvius, which is tunnelled below the substance of the corpora quadrigemina. Along the centre of the floor is the median furrow, which terminates below in a pen-shaped form, the so-called calamus scriptorius. Situated on its floor are the fasciculi teretes, striae acusticae, and deposits of grey matter described in connexion with the medulla oblongata. Its epithelial lining is continuous with that of the central canal.

The Cerebrum.

The *Cerebrum* or Great Brain lies above the plane of the tentorium, and forms much the largest division of the encephalon. It is customary in human anatomy to include under the name of cerebrum, not only the convolutions, the corpora striata, and the optic thalami, developed in the anterior cerebral vesicle, but also the corpora quadrigemina and crura cerebri developed in the mesencephalon or middle cerebral vesicle. The cerebrum is ovoid in shape, and presents superiorly, anteriorly and posteriorly a deep median longitudinal fissure, which subdivides it into two hemispheres. Inferiorly there is a continuity of structure between the two hemispheres across the mesial plane, and if the two hemispheres be drawn asunder by opening out the longitudinal fissure, a broad white band, the corpus callosum, may be seen at the bottom of the fissure passing across the mesial plane from one hemisphere to the other. The outer surface of each hemisphere is convex, and adapted in shape to the concavity of the inner table of the cranial bones; its inner surface, which bounds the longitudinal fissure, is flat and is separated from the opposite hemisphere by the falx cerebri; its under surface, where it rests on the tentorium, is concave, and is separated by that membrane from the cerebellum and pons. From the front of the pons two strong white bands, the crura cerebri or cerebral peduncles, pass forward and upward (see fig. 2). Winding round the outer side of each crus is a flat white

band, the optic tract. These tracts converge in front, and join to form the optic commissure, from which the two optic nerves arise. The crura cerebri, optic tracts, and optic commissure enclose a lozenge-shaped space, which includes - (a) a grey layer, which, from being perforated by several small arteries, is called locus perforatus posticus; (b) two white mammillae, the corpora albicantia; (c) a grey nodule, the tuber cinereum, from which (d) the infundibulum projects to join the pituitary body. Immediately in front of the optic commissure is a grey layer, the lamina cinerea of the third ventricle; and between the optic commissure and the inner end of each Sylvian fissure is a grey spot perforated by small arteries, the locus perforatus anticus.

If a transverse section is made at right angles to the surface of the crura cerebri it will pass right through the mesencephalon and come out on the dorsal side through the corpora quadrigemina (see fig. 8). The ventral part of each crus forms the crista, which is the continuation forward of the anterior pyramidal fibres of the medulla and pons, and is the great motor path from the brain to the cord. Dorsal to this is a layer of pigmented grey matter, called the substantia nigra, and dorsal to this again is the tegmentum, which is a continuation upward of the formatio reticularis of the medulla, and passing through it are seen three important nerve bundles. The superior cerebellar peduncle is the most internal of these and decussates with its fellow of the opposite side so that the two tegmenta are continuous across the middle line. More externally the mesial fillet is seen, while dorsal to the cerebellar peduncle is the posterior longitudinal bundle. If the section happens to pass through the superior corpus quadrigeminum a characteristic circular area appears between the cerebellar peduncle and the fillet, which, from its tint, is called the red nucleus. More dorsally still the section will pass through the Sylvian aqueduct or passage from the third to the fourth ventricle, and this is surrounded by a mass of grey matter in the ventral part of which are the nuclei of the third and fourth nerves. The third nerve is seen at the level of the superior corpus quadrigeminum running from its nucleus of origin, through the red nucleus, to a groove on the inner side of the crus called the oculomotor groove, which marks the separation between the crista and tegmentum. Dorsal to the Sylvian aqueduct is a layer called the lamina quadrigemina and on this the corpora quadrigemina rest. The superior pair of these bodies is overlapped by the pineal body and forms part of the lower visual centres. Connexions can be traced to the optic tract, the higher visual centre on the mesial surface of the occipital lobe, the deep origin of the third or oculo-motor nerve as well as to the mesial and lateral fillet. The inferior pair of quadrigeminal bodies are more closely in touch with the organs of hearing, and are connected by the lateral fillet with the cochlear nucleus of the auditory nerve.

External geniculate

Inferior brachium

Internal geniculate body

Mesial fillet

Sylvian grey matter

Sylvian aqueduct

Posterior longitudinal bundle

Red nucleus

Fibres of superior cerebellar peduncle

Substantia nigra

Corpus mammillare

From Cunningham, *Text book of Anatomy*

Fig. 8. - Transverse Section through the Human Mesebecephalon at the level of superior Quadrigeminal Body.

Surface of the Brain.

The peripheral part of each hemisphere, which consists of grey matter, exhibits a characteristic folded appearance, known as gyri (or convolutions) of the cerebrum. These gyri are separated from each other by fissures and sulci, some of which are considered to subdivide the hemisphere into lobes, whilst others separate the gyri in each lobe

from each other. In each hemisphere of the human brain five lobes are recognized: the temporo-sphenoidal, frontal, parietal, occipital, and the central lobe or Island of Reil; it should, however, be realized that these lobes do not exactly correspond to the outlines of the bones after which they are named. Passing obliquely on the outer face of the hemisphere from before, upward and backward, is the well marked Sylvian fissure (fig. 9, s), which is the first to appear in the development of the hemisphere. Below it lies the temporo-sphenoidal lobe, and above and in front of it, the parietal and frontal lobes. As soon as it appears on the external surface of the brain the fissure divides into three limbs, anterior horizontal (s'), ascending (s 2), and posterior horizontal (s 3), the latter being by far the longest. The place whence these diverge is the Sylvian point and corresponds to the pterion on the surface of the skull (see *Anatomy: Superficial and Artistic*). Between these three limbs and the vallecule or main stem of the fissure are four triangular tongues or opercula; these are named, according to their position, orbital (fig. 9, C), frontal (pars triangularis) (B), fronto-parietal (pars basilaris) (A) and temporal. The frontal lobe body is separated from the parietal by the fissure of Rolando (fig. 9, r) which extends on the outer face of the hemisphere from the longitudinal fissure obliquely downward and forward towards the Sylvian fissure. About 2 in. from the hinder end of the hemisphere is the parieto-occipital fissure, which, commencing at the longitudinal fissure, passes down the inner surface of the hemisphere, and transversely outwards for a short distance on the outer surface of the hemisphere; it separates the parietal and occipital lobes from each other.

The *Temporo-Sphenoidal Lobe* presents on the outer surface of the hemisphere three convolutions, arranged in parallel tiers from above downward, and named superior, middle and inferior temporal gyri. The fissure which separates the superior and middle of these convolutions is called the parallel fissure (fig. 9, t'). The Occipital Lobe also consists from above downwards of three parallel gyri, named superior, middle and inferior occipital. The Frontal Lobe is more complex; immediately in front of the fissure of Rolando, and forming indeed its anterior boundary, is a convolution named ascending frontal or pre-central, which ascends obliquely backward and upward from the Sylvian to the longitudinal fissure. Springing from the front of this gyrus, and passing forward to the anterior end of the cerebrum, are three gyri, arranged in parallel tiers from above downwards, and named superior, middle and inferior frontal gyri, which are also prolonged on to the orbital face of the frontal lobe. The Parietal Lobe is also complex; its most anterior gyrus, named ascending parietal or post-central, ascends parallel to and immediately behind the fissure of Rolando. Springing from the upper end of the back of this gyrus is the supra-parietal lobule, which, forming the boundary of the longitudinal fissure, extends as far back as the parieto-occipital fissure; springing from the lower end of the back of this gyrus is the supra-marginal, which forms the

From Cunningham, *Text book of Anatomy*

Fig. 9. - Gyri and Sulci, on the outer surface of the Cerebral Hemisphere.

f1 Sulcus frontalis superior.

f2 , Sulcus frontalis inferior.

f m, Sulcus frontalis medius.

p.m, Sulcus paramedialis.

A, Pars basilaris.

B, Pars triangularis.

C, Pars orbitalis.

S, Sylvian fissure.

s1, Anterior horizontal limb (Sylvian fissure)

s2, Ascending limb (Sylvian fissure).

s3, Posterior horizontal limb (Sylvian fissure).

s.asc, Ascending terminal part of the posterior horizontal limb of the Sylvian fissure.

p.c.i, Inferior praecentral sulcus.

p.c.s, Superior praecentral sulcus.

r, Fissure of Rolando.

g.s, Superior genu.

g.i, Inferior genu.

d, Sulcus diagonalis.

t', Superior temporal sulcus (parallel t 2, Inferior temporal sulcus. [sulcus). p', Inferior postcentral sulcus.

p2, Superior postcentral sulcus.

p3, Ramus horizontalis.

p4, Ramus occipitalis.

s.o.t, Sulcus occipitalis transversus.

occ. lat, Sulcus occipitalis lateralis (the sulcus lunatus of Elliot Smith). c.m, Calloso-marginal sulcus.

c.t r, Inferior transverse furrow.

upper boundary of the hinder part of the Sylvian fissure; as this gyrus occupies the hollow in the parietal bone, which corresponds to the eminence, it may appropriately be named the gyrus of the parietal eminence. Above and behind the gyrus of the parietal eminence is the angular gyrus, which bends round the posterior extremity of the parallel fissure, while arching over the hinder end of the inferior temporosphenoidal sulcus is the post-parietal gyrus. Lying in the parietal lobe is the intra-parietal fissure (fig. 9, p 3 and p 4), which separates the gyrus of the parietal eminence from the supraparietal lobule.

Fig. 10 - Orbital surface of the left frontal lobe and the island of Reil; the tip of the temporo-sphenoidal lobe has been removed to display the latter.

17. Convolution of the margin of the longitudinal fissure.

O. Olfactory fissure, over which the olfactory peduncle and lobe are situated.

TR. Orbital sulcus.

1" I ". Convolutions on the orbital surface.

I, 1, 1. Under surface of infero-frontal convolution.

4. Under surface of ascending frontal; and 5, of ascending parietal convolutions.

C. Central lobe or insula.

The *Central Lobe* of the hemisphere, more usually called the insula or island of Reil, does not come to the surface of the hemisphere, but lies deeply within the Sylvian fissure, the opercula forming the margin of which, conceal it. It consists of four or five short gyri, which radiate from the *locus perforates anticus*, situated at the inner end of the fissure. This lobe is almost entirely surrounded by a deep sulcus called the limiting sulcus of Reil, which insulates it from the adjacent gyri. It lies opposite the upper part of the ali-sphenoid, where it articulates with the parietal and squamous-temporal.

In front of the central lobe, on the base of the brain, are the orbital gyri which are separated from another by the *orbital sulcus*. This is usually H-shaped, and the gyri therefore anterior, posterior, external and internal. Bisecting the internal orbital gyrus is an antero-posterior sulcus (*s. rectus*), beneath which lies the olfactory lobe, bulbous in front, for the olfactory nerves to arise from.

On the mesial surface of the hemisphere, as seen when the brain is longitudinally bisected and the cerebellum and medulla removed by cutting through the crus cerebri (see fig. 11), the divided corpus callosum is the most central object, while below it are seen the fornix, septum lucidum and third ventricle, the description of which will follow. The cerebral surface, above and in front of the corpus callosum, is divided into two by a sulcus, the contour of which closely resembles that of the upper margin of the corpus callosum. This is the calloso-marginal sulcus, so called because it separates the callosal gyrus, which lies between it and the corpus callosum, from the marginal gyri nearer

the margin of the brain. When the sulcus reaches a point vertically above the hind end of the corpus callosum it turns sharply upward and so forms the hinder limit of the marginal gyri, the posterior inch or two of which is more or less distinctly marked off to form the paracentral lobule, where the upper part of the central fissure of Rolando turns over the margin of the brain. The callosal gyrus, which is also called the gyrus fornicatus from its arched appearance, is continued backward round the posterior end of the corpus callosum, and so to the mesial surface of the temporal lobe. Behind the upturned end of the callosal-marginal sulcus there is a square area which is called the precuneus or quadrate lobe; it is bounded behind by the deeply cut internal parieto-occipital fissure and this runs from the margin of the brain downward and forward to join another fissure, the calcarine, at an acute angle, thus enclosing a wedge-shaped piece of brain called the cuneus between them. The calcarine fissure is fairly horizontal, and is joined about its middle by the internal parieto-occipital, so that the part in front of the junction is called the pre-calcarine, and that behind the post-calcarine fissure. The internal parieto-occipital and calcarine are real fissures, because they cause an elevation in the interior of the brain, known as the hippocampus minor. Just in front of the anterior end of the calcarine fissure the callosal gyrus is constricted to form the isthmus which connects it with the hippocampal or uncinat gyrus. Below the calcarine fissure is a gyrus called the gyrus lingualis, and this is bounded below by another true fissure, the collateral, which runs parallel to the calcarine, but is continued much farther forward into the temporal lobe and so forms the lower boundary of the hippocampal gyrus. It will thus be seen that the hippocampal gyrus is continuous posteriorly with the callosal gyrus above by means of the isthmus, and with the gyrus lingualis below. The hippocampal gyrus is bounded above by the dentate or hippocampal fissure which causes the hippocampus major in the descending cornu and so is a complete fissure. If its lips are separated the fascia dentata or gyrus dentatus and the fimbria continued from the posterior pillar of the fornix are seen. Anteriorly the fissure is arrested by the recurved process of the upper part of the hippocampal gyrus, called the uncus, and in front of this a slight sulcus, the incisura temporalis, marks off the temporal pole or tip of the temporal lobe from the region of the uncus. It will be seen that the callosal gyrus, isthmus, and hippocampal gyrus form nearly a complete ring, and to this the name of *limbic lobe* is given.

Interior of the Cerebrum.

If a horizontal slice be removed from the upper part of each hemisphere (see fig. 12), the peripheral grey matter of the gyri will be seen to follow their various windings, whilst the core of each gyrus consists of white matter continuous with a mass of white matter in the interior of the hemisphere. If a deeper slice be now made down to the plane of the corpus callosum, the white matter of that structure will be seen to be continuous with the white centre of each hemisphere known as the centrum ovale. The corpus callosum does not equal the hemispheres in length, but approaches nearer to their anterior than their posterior ends. It terminates behind in a free rounded end, named the splenium (see fig. II), whilst in front it forms a knee-shaped bend, and passes downwards and backwards as far as the lamina cinerea. If the dissection be performed on a brain which has been hardened in spirit, the corpus callosum is seen to consist almost entirely of bundles of nerve fibres, passing transversely across the mesial plane between the two hemispheres; these fibres may be traced into the white cores and grey matter of the gyri, and connect the gyri, though by no means always corresponding ones, in the opposite hemispheres. Hence the corpus callosum is a connecting or commissural structure, which brings the gyri of the two hemispheres into anatomical and physiological relation with each other. On the surface of the corpus callosum a few fibres, the striae longitudinales, run in the antero-posterior or longitudinal direction (see fig. 12, b). Their morphological interest is referred to in the section below on Comparative Anatomy. In the sulcus between the corpus callosum and the limbic lobe a narrow band of fibres called the cingulum is seen, most of its fibres only run a short distance in it and link together adjacent parts of the brain. If the corpus callosum be now cut through on each side of its mesial line, the large cavity or lateral ventricle in each hemisphere will be opened into.

From Cunningham, *Text book of Anatomy*

Fig. 11. - The Gyri and Sulci on the Mesial Aspect of the Cerebral Hemisphere. r, Fissure of Rolando. r,o, Rostral sulcus. i,t, Incisura temporalis.

The lateral ventricle is subdivided into a central space or body, and three bent prolongations or cornua; the anterior cornu extends forward, outward and downward into the frontal lobe; the posterior cornu curves backward, outward and inward into the occipital lobe; the descending cornu curves backward, outward, downward, forward and inward, behind and below the optic thalamus into the temporosphenoidal lobe. On the floor of the central space may be seen from before backward the grey upper surface of the pear-shaped caudate nucleus of the corpus striatum (figs. 12 and 13, f), and to its inner and posterior part a small portion of the optic thalamus, whilst between the two is the curved flat band, the taenia semicircularis (figs. 12 and 13, g). Resting on the upper surface of the thalamus

Fig. 12. - To show the Right Ventricle and the left half of the Corpus Callosum.

a, Transverse fibres, and g, Taenia semicircularis.

b, Longitudinal fibres of corpus h, Optic thalamus.

callosum. k, Choroid plexus.

c, Anterior, and [ventricle. l, Taenia hippocampi.

d, Posterior cornua of lateral m, Hippocampus major.

e, Septum lucidum. n, Hippocampus minor.

f, Corpus striatum. o, Eminentia collateralis.

is the vascular fringe of the velum interpositum, named choroid plexus, and immediately internal to this fringe is the free edge of the white posterior pillar of the fornix. The anterior cornu has the anterior end of the corpus striatum projecting into it. The posterior cornu has an elevation on its floor, the hippocampus minor (fig. 12, n), and between this cornu and the descending cornu is the elevation called eminentia collateralis, formed by the collateral fissure (fig. 12, o).

Extending down the descending cornu and following its curvature is the hippocampus major, which terminates below in a nodular end, the pes hippocampi; on its inner border is the white taenia hippocampi, continuous above with the posterior pillar of the fornix. If the taenia be drawn to one side the hippocampal fissure is exposed, at the bottom of which the grey matter of the gyrus hippocampi may be seen to form a well-defined dentated border (the so-called fascia dentata). The choroid plexus of the pia mater turns round the gyrus hippocampi, and enters the descending cornu through the lateral part of the great transverse fissure between the taenia hippocampi and optic thalamus. The lateral ventricle is lined by a ciliated epithelium called the ependyma. This lining is continuous through the foramen of Monro with that of the third ventricle, which again is continuous with the lining of the fourth ventricle through the aqueduct of Sylvius. A little fluid is contained in the cerebral ventricles, which, under some pathological conditions, may increase greatly in quantity, so as to occasion considerable dilatation of the ventricular cavities.

If the corpus callosum be now divided about its middle by a transverse incision, and the posterior half of this structure be turned back (see fig. 13), the body of the fornix on which the corpus callosum rests is exposed. If the anterior half of the corpus callosum be now turned forward, the grey partition, or septum lucidum, between the two lateral ventricles is exposed. This septum fits into the interval between the under surface of the corpus callosum and the upper surface of the anterior part of the fornix. It consists of two layers of grey matter, between which is a narrow vertical mesial space, the fifth ventricle (fig. 13, e), and this space does not communicate with the other ventricles nor is it lined with ependyma. If the septum be now removed, the anterior part of the fornix is brought into view.

The *fornix* is an arch-shaped band of nerve fibres extending in the antero-posterior direction. Its anterior end forms the anterior pillars of the arch, its posterior end the posterior pillars, whilst the intermediate body of the fornix forms the crown of the arch. It consists of two lateral halves, one belonging to each hemisphere. At the summit of the arch the two lateral halves are joined to form the body; but in front the two halves separate from each other, and form two anterior pillars, which descend in front of the third ventricle to the base of the cerebrum, where they form the corpora albicantia, and from these some white fibres called the bundle of Vicq d'Azyr ascend to the optic thalamus (see fig. ii). Behind the body the two halves diverge much more from each other, and form the posterior pillars, in the

triangular interval between which is a thin lamina of commissural fibres called the lyra (fig. 13, a). Each posterior pillar curves downward and outward into the descending cornu of the ventricle, and, under the name of taenia hippocampi, forms the mesial free border of the hippocampus major (fig. 13, 1). Eventually it ends in the substance of the hippocampus and in the uncus of the temporal lobe. If the body of the fornix be now divided by a transverse incision, its anterior part thrown forward, and its posterior part backward, the great transverse fissure of the cerebrum is opened into, and the velum interpositum lying in that fissure is exposed.

The *velum interpositum* is an expanded fold of pia mater, which passes into the anterior of the hemispheres through the great transverse fissure. It is triangular in shape; its base is a line with the posterior end of the corpus callosum, where it is continuous with the external pia mater; its lateral margins are fringed by the choroid plexuses, which are seen in the bodies and descending cornua of the lateral ventricles, where they are invested by the endothelial lining of those cavities. Its apex, where the two choroid plexuses blend with each other, lies just behind the anterior pillars of the fornix. The interval between the apex and these pillars is the aperture of communication between the two lateral ventricles and the third, already referred to as the foramen of Monro. The choroid plexuses contain the small choroidal arteries; and the blood from these is returned by small veins, which join to form the veins of Galen. These veins pass along the centre of the velum, and, as is shown in fig. 1, open into the straight sinus. If the velum interpositum be now carefully raised from before backward, the optic thalami, third ventricle, pineal body and corpora quadrigemina are exposed..

Fig. 13. - A deeper dissection of the Lateral Ventricle, and of the Velum Interpositum.

a, Lyra, turned back. g, g, Taenia semicircularis.

b, b, Posterior pillars of the h, h, Optic thalamus.

fornix, turned back. k, Choroid plexus.

c, c, Anterior pillars of the fornix. l, Taenia hippocampi.

d, Velum interpositum and m, Hippocampus major in the veins of Galen. ascending cornu.

e, Fifth ventricle. n, Hippocampus minor.

f, f, Corpus striatum. o, Eminentia collateralis.

The *optic thalamus* is a large, somewhat ovoid body situated behind the corpus striatum, and above the crus cerebri. Its upper surface is partly seen in the floor of the body of the lateral ventricle, but is for the most part covered by the fornix and velum interpositum. Its postero-inferior surface forms the roof of the descending cornu Tail of. candate nucleus of the ventricle, whilst its inner surface forms the side wall of the third ventricle. At its outer and posterior part are two slight elevations, in close relation to the optic tract, and named respectively corpus geniculatum internum and externum.

The posterior knob-like extremity of the thalamus is called the pulvinar; this, as well as the two corpora geniculata and the superior corpus quadrigeminum, is connected with the optic tract.

The *third ventricle* (see fig. 6) is a cavity situated in the mesial plane between the two optic thalami. Its roof is formed by the velum interpositum and body of the fornix; its floor by the posterior perforated space, corpora albicantia, tuber cinereum, infundibulum, and optic commissure; its anterior boundary by the anterior pillars of the fornix, anterior commissure and lamina cinerea; its posterior boundary by the corpora quadrigemina and posterior commissure. The cavity of this ventricle is of small size in the living head, for the inner surfaces of the two thalami are connected together

From Cunningham, *Text book of Anatomy*

Fig. 14. - Horizontal Section through the Right Cerebral Hemisphere at the Level of the Widest Part of the Lenticular Nucleus.

Genu of corpus callosum

Anterior horn of lateral ventricle

Caudate nucleus

Anterior limb of internal capsule

Ventricle V.

Genu of internal capsule

Anterior pillars of fornix

Globus pallidus

Bundle of Vicq d'Azyr

Posterior limb of internal capsule

Retro-lenticular part of internal capsule

Hippocampus major

Splenium

Choroid plexus

Band of Vicq d'Azyr

Calcarine fissure

Clastrum

Insula Optic

Tapetum

Inferior longitudinal bundle

by intermediate grey matter, named the middle or soft commissure. Immediately in front of the corpora quadrigemina, the white fibres of the posterior commissure pass across between the two optic thalami. If the anterior pillars of the fornix be separated from each other, the white fibres of the anterior commissure may be seen lying in front of them.

The *pineal body* is a reddish cone-shaped body situated upon the anterior pair of the corpora quadrigemina (see figs. 3 and 6). From its broad anterior end two white bands, the peduncles of the pineal body, pass forward, one on the inner side of each optic thalamus. Each peduncle joins, along with the *taenia semicircularis*, the anterior pillar of the fornix of its own side. In its structure this body consists of tubular gland tissue containing gritty calcareous particles, constituting the brain sand. Its morphology will be referred to later.

A general idea of the internal structure of the brain is best obtained by studying a horizontal section made just below the level of the Sylvian point and just above the great transverse fissure (see fig. 14). Such a section will cut the corpus callosum anteriorly at the genu and posteriorly at the splenium, but the body is above the plane of section. Behind the genu the fifth ventricle is cut, and behind that the two pillars of the fornix which here form the anterior boundary of the third ventricle. At the posterior end of this is the pineal body, which the section has just escaped. To the outer side of the fornix is seen the foramen of Munro, leading into the front of the body and anterior horn of the lateral ventricle. It will be seen that the lateral boundary of this horn is the cut caudate nucleus of the corpus striatum, while the lateral boundary of the third ventricle is the cut optic thalamus, both of which bodies have been already described, but external to these is a third triangular grey mass, with its apex directed inward, which cannot be seen except in a section. This is the lenticular nucleus of the corpus striatum, the inner or apical half of which is of a light colour and is called the globus pallidus, while the basal half is redder and is known as the putamen. External to the putamen is a long narrow strip of grey matter called the claustrum, which is sometimes regarded as a third nucleus of the corpus striatum. These masses of grey matter, taken together, are the basal nuclei of the brain. Internal to the lenticular nucleus, and between it and the caudate nucleus in front and the thalamus behind, is the internal capsule, through which run most of the fibres connecting the cerebral cortex with the crus cerebri. The capsule adapts itself to the contour of the lenticular nucleus and has an anterior limb, a bend or genu, and a posterior limb. Just behind the

genu of the internal capsule is a very important region, for here the great motor tract from the Rolandic region of the cortex passes on its way to the crista and spinal cord. Besides this there are fibres passing from the cortex to the deep origins of the facial and hypo-glossal nerves. Behind the motor tracts are the sensory, including the fillet, the superior cerebellar peduncle and the inferior quadrigeminal tract, while quite at the back of the capsule are found the auditory and optic radiations linking up the higher (cortical) and lower auditory and visual centres. Between the putamen and the claustrum is the external capsule, which is smaller and of less importance than the internal, while on the lateral side of the claustrum is the white and then the grey matter of the central lobe. As the fibres of the internal capsule run up toward the cortex they decussate with the transverse fibres of the corpus callosum and spread out to form the corona radiata. It has only been possible to deal with a few of the more important bundles of fibres here, but it should be mentioned that much of the white matter of the brain is formed of association fibres which link up different cortical areas, and which become medullated and functional after birth.

Weight of the Brain.

This has been the subject of a great deal of research, but the results are not altogether conclusive; it seems, however, that, although the male brain is 4 to 5 oz. heavier than that of the female, its relative weight to that of the body is about the same in the two sexes. An average male brain weighs about 48 oz. and a female 43 1/2 oz. The greatest absolute weight is found between twenty-five and thirty-five years of age in the male and a little later in the female. At birth the brain weighs comparatively much more than it does later on, its proportion to the body weight being about 1 to 6. At the tenth year it is about 1 to 14, at the twentieth 1 to 30, and after that about 1 to 36.5. In old age there is a further slight decrease in proportion. In many men of great intellectual eminence the brain weight has been large - Cuvier's brain weighed 64 1/2 oz., Goodsir's 57 1/2, for instance - but the exceptions are numerous. Brains over 60 oz. in weight are frequently found in quite undistinguished people, and even in idiots 60 oz. has been recorded. On the other hand, microcephalic idiots may have a brain as low as to or even 8 1/2 oz., but it is doubtful whether normal intelligence is possible with a brain weighing less than 32 oz. The taller the individual the greater is his brain weight, but short people have proportionally heavier brains than tall. The weight of the cerebellum is usually one-eighth of that of the entire brain. Attempts have been made to estimate the surface area of the grey matter by dissecting it off and measuring it, and also by covering it with gold leaf and measuring that. The results, however, have not been conclusive.

Further details of the brain, abundantly illustrated, will be found in the later editions of any of the standard text-books on anatomy, references to which will be found in the article on Anatomy: Modern Human. *Das Menschenhirn*, by G. Retzius (Stockholm, 1896), and numerous recent memoirs by G. Elliot Smith and D. J. Cunningham in the *Journ. Anat. and Phys.* and *Anatomisch Anzeig.*, may be consulted.

Histology of Cerebral Cortex.

The cerebral cortex (see fig. 15) consists of a continuous sheet of grey matter completely enveloping the white matter of the hemispheres. It varies in thickness in different parts, and becomes thinner in old age, but all parts show a somewhat similar microscopic structure. Thus, in vertical section, the following layers may be made out:--

1. *The Molecular Layer (Stratum zonale).* - This is made up of a large number of fine nerve branchings both medullated and nonmedullated. The whole forms a close network, the fibres of which run chiefly a tangential course. The cells of this layer are the so-called cells of Cajal. They possess an irregular body, giving off 4 or 5 dendrites, which terminate within the molecular layer and a long nerve fibre process or neuraxon which runs parallel to the surface of the convolution.

2. *The Layer of small Pyramidal Cells* - The typical cells of this layer are pyramid-shaped, the apices of the pyramids being directed towards the surface. The apex terminates in a dendron which reaches into the molecular layer, giving off several collateral horizontal branches in its course. The final branches in the molecular layer take a direction parallel to the surface. Smaller dendrites arise from the lateral and basal surfaces of these cells, but do not extend far from the body of the cell. The neuraxon always arises from the base of the cell and passes towards the central white

From Cunningham, *Text book of Anatomy.*

Fig. 15. - Diagram to illustrate Minute Structure of the Cerebral Cortex.

A. B. Neuroglia cells.

C. Cell with short axon (N) which breaks up in a free arborization.

D. Spindle-shaped cell in stratum zonale.

E. Small pyramidal cell.

F. Large pyramidal cell.

G. Cell of Martinotti.

H. Polymorphic cell.

K. Corticopetal fibres.

matter, thus forming one of the nerve-fibres of that substance. In its path it gives off a number of collaterals at right angles, which are distributed to the adjacent grey matter.

3. *The Layer of large Pyramidal Cells.* - This is characterized by the presence of numbers of cells of the same type as those of the preceding layer, but of larger size. The nerve-fibre process becomes a medullated fibre of the white matter.

4. *The Layer of Polymorphous Cells.* - The cells of this layer are irregular in outline, and give off several dendrites branching into the surrounding grey matter. The neuraxon gives off a number of collaterals, and then becomes a nerve-fibre of the central white matter.

Scattered through these three layers there are also a number of cells (cells of Golgi) whose neuraxon divides at once, the divisions terminating within the immediate vicinity of the cell-body. Some cells are also found in which the neuraxon, instead of running into the white matter of the brain, passes toward the surface; these are called *cells of Martinotti*.

The medullated nerve-fibres of the white matter when traced into the cortex are seen to enter in bundles set vertically to the surface. These bundles taper and are resolved into isolated fibres in the upper parts of the pyramidal layers. The fibres constituting the bundles form two sets. (a) The centrifugal fibres consist as above described of the fibre processes of the pyramidal and polymorphous cells. (b) The centripetal fibres ascend through the cortex to terminate within the molecular layer by horizontally running branches. As they pass through they give off a number of collaterals. The position of the cells from which these fibres arise is not known. In addition to the radially arranged bundles of fibres, networks are formed by the interlacement with them of large numbers of fine medullated fibres running tangentially to the surface. These are derived chiefly from the collaterals of the pyramidal cells and of the centripetal fibres. They form two specially marked bundles, one within the layer of the polymorphous cells known as the inner band of Baillarger, and another in the layer of large pyramidal cells called the outer band of Baillarger. This latter is very thick in the calcarine region, and forms the white stria of Gennin, while the inner band is best seen in the precentral gyrus. As both these strands cross the already mentioned radial bundles at right angles, they are regarded as specialized parts of an interradianal reticulum of fibres, but, nearer the surface than the radial bundles penetrate, tangential fibres are found, and here they are called the supraradianal reticulum. In certain parts of the brain the fibres of this reticulum are more

From *The Museum Catalogue the Royal College Surgeons England*.

Fig. 16. - Brain of *Petromyzon marinus* (dorsal view). A, Brain; B, choroid plexus removed.

closely set, and form the band of Bechterew in the superficial part of the small pyramidal cell zone.

For further information on the structure of the cerebral cortex, see A. W. Campbell, Proc. R. Soc. vols. lxxii. and lxxiv.

Comparative Anatomy.

A useful introduction to the study of the vertebrate brain is that of the *Amphioxus*, one of the lowest of the Chordata or animals having a notochord. Here the brain is a very slightly modified part of the dorsal tubular nerve-cord, and, on the surface, shows no distinction from the rest of that cord. When a section is made the central canal is seen to be enlarged into a cavity, the neurocoele, which, in the young animal, communicates by an opening, the neuropore, with the bottom of the olfactory pit, and so with the exterior. More ventrally another slight diverticulum probably represents the infundibulum. The only trace of an eye is a patch of pigment at the anterior end of the brain, and there are no signs of any auditory apparatus. There are only two pairs of cerebral nerves, both of which are sensory (Willey, *Amphioxus*, 1894). In the Cyclostomata, of which the lamprey (*Petromyzon*) is an example, the minute brain is much more complex, though it is still only a very slight enlargement of the anterior end of the cord. The single cavity seen in *Amphioxus* is here subdivided into three: an anterior or prosencephalon, a middle or mesencephalon, and a hinder or rhombencephalon. The rhombencephalon has a very slight transverse thickening in the fore-part of its roof, this is the rudimentary cerebellum (Cer.); the rest of this part of the brain is taken up by the large medulla, the cavity of which is the fossa rhomboidalis or fourth ventricle. This fossa is roofed over by the epithelium lining the cavity of the ventricle, by pia mater and blood-vessels constituting a choroid plexus (fig. 16, B). The fourth ventricle communicates with the parts in front by means of a passage known as the aqueduct of Sylvius.

The mesencephalon or mid-brain, when looked at from the dorsal surface, shows a pair of large hollow swellings, the optic lobes or *corpora bigemina*. Their cavities open out from the aqueduct of Sylvius, and from the nervous tissue in their walls the optic nerves derive their fibres. From the front of the prosencephalon or anterior vesicle the olfactory nerves come off, and at the base of each of these are two hollow swellings; the larger and more anterior is the olfactory bulb, the smaller and more posterior the cerebral hemisphere. Both these swellings must be regarded as lateral outgrowths from the blind front end of the original single vesicle of the brain as seen in *Amphioxus*, and from the anterior subdivision or prosencephalon in the lamprey. The anterior vesicle, however, is now again subdivided, and that part from which the cerebral hemispheres bud out, and the hemispheres themselves, is called the telencephalon, while the posterior part of the original prosencephalon is known as the thalamencephalon, or more rarely the diencephalon. On the dorsal surface of the thalamencephalon are two nervous masses called the ganglia habenulae; the right is much larger than the left, and from it a stalk runs forward and upward to end in the vestigial pineal body (or epiphysis), which contains rudiments of a pigmented retina and of a lens, and which is usually regarded as the remains of one of a pair of median eyes, though it has been suggested that it may be an organ for the appreciation of temperature. From the small left ganglion habenulae a still more rudimentary pineal stalk projects, and there are signs of a third outgrowth (paraphysis) in front of these. On the floor of the thalamencephalon the blind pouch-like infundibulum is in contact with the pituitary body, an outgrowth from the combined pituitary and olfactory pouch, which in the adult opens on to the top of the head just in front of the pineal area. The anterior closed end of the nerve-tube, in front of the foramina of Munro or openings from which the hemispheres have grown out, is known as the lamina terminalis, and in this is seen a little white commissure, connecting the hemispheres of opposite sides and belonging entirely to the telencephalon, known as the anterior commissure. The roof of the telencephalon is mainly epithelial, and contains no traces of cortical structure. In the posterior part of the roof of the thalamencephalon is the small posterior commissure (Ahlborn, *Zeits. wiss. Zool.* Bd. xxxix., 1883, p. 191). In the Elasmobranch Fish, such as the sharks and rays, the cerebellum (Cer. fig. 17) is very large and contains the layers found in all the higher vertebrates. In the mesencephalon fibres corresponding with those of the fillet of higher vertebrates can be seen, and there is a nucleus in the hinder part of the corpora bigemina foreshadowing the separation into corpora quadrigemina. There is only one pineal stalk in the roof of the thalamencephalon, and the ganglia habenulae - very constant structures in the vertebrate brain - are not so marked as in *Petromyzon*, but are, as usual, connected with the olfactory parts of the cerebrum, with the surface of the optic lobes (tectum opticum), and with the corpus interpedunculare (Meynert's bundle). They are united across the middle line by a small superior or habenular commissure. In the floor of the thalamencephalon are two masses of ganglionic tissue, the optic thalami. The infundibulum dilates into two rounded bodies, the lobi inferiores, while the pituitary body or hypophysis cerebri

has two lateral diverticula known as sacci vasculosi. Ganglia geniculata are found for the first time in connexion with the optic tracts in the lower part of the thalamus. The olfactory lobes (fig. 17, Olf. Bulb) are very large and often separated by long stalks from the cerebral hemispheres, which are comparatively much larger than those of the Cyclostomata; their roof or pallium is nervous, but devoid of cortical

From *Cat R C S England*

Fig. 17. - Section of the Brain of Porbeagle Shark (*Lamna*).

structure, while in the floor in some species large anterior basal ganglia or corpora striata are found (Miklucho-Maclay, Beitrage z. vergl. Neurol., 1870; Edinger, Arch. mikr. Anat. Bd. lviii., 1901, p. 661, "Cerebellum"). The Teleostean Fish are chiefly remarkable for the great development of the optic lobes and suppression of the olfactory apparatus. The pallium is non-nervous, and the optic tracts merely cross one another instead of forming a commissure. A process of the cerebellum called valvula cerebelli projects into the cavity of each optic lobe (Rabl. Ruckhard, Arch. Anat. u. Phys., 1898, p. 345 [Pallium]; Haller, Morph. Jahrb. Bd. xxvi., 1898, p. 632 [Histology and Bibliography]). The brain of the Dipnoi, or mud fish, shows no very important developments, except that the 401 anterior pineal organ or paraphysis is large (Saunders, Ann. and Mag. Nat. Hist. ser. 6, vol. iii., 1889, p. 157; Burkhardt, Centralnervensystem v. Protopterus, Berlin, 1892).

In the Amphibia the brain is of a low type, the most marked advances on that of the fish being that the anterior commissure is divided into a dorsal and ventral part, of which the ventral is the true anterior commissure of higher vertebrates, while the dorsal is, a hippocampal commissure and coincides in its appearance with the presence of a small mass of cells in the outer layer of the median wall of the pallium, which is probably the first indication of a hippocampal cortex or cortex of any kind (Osborn, Journ. Morph. vol. ii., 1889, p. 51).

From *Cat R C S England*.

Fig. 18. - Section of Brain of Turtle (*Chelone*).

In the Reptilia the medulla has a marked flexure with a ventral convexity, and an undoubted cerebral cortex for the first time makes its appearance. The mesial wall of the cerebral hemisphere is divided into a large dorsal hippocampal area (fig. 18, Hip.) and a smaller ventral olfactory tubercle. Between these two a narrow area of ganglionic matter runs forward from the side of the lamina terminalis and is known as the paraterminal or precommissural area (Elliot Smith, Journ. Anat. and Phys. vol. xxxii. p. 411). To the upper lateral part of the hemisphere Elliot Smith has given the name of neopallium, while the lower lateral part, imperfectly separated from it, is called the pyriform lobe. In the Lacertilia the pineal eye, if it be an eye, is better developed than in any existing vertebrate, though even in them there is no evidence of its being used for sight. Behind the so-called pineal eye and its stalk is the epiphysis or pineal body, and sometimes there is a dorsal sac between them (see fig. 18).^[1] The middle or soft commissure appears in certain reptiles (Crocodilia and Chelonia), as does also the corpus mammillare (Edinger, Senckenberg, Naturf. Gesell. Bd. xix., 1896, and Bd. xxii., 1899 Haller, Morph. Jahrb. Bd. xxviii., 1900, p. 252). Among the birds there is great unity of type, the cerebellum is large and, by its forward projection, presses the optic lobes down toward the ventro-lateral part of the brain. The cerebral hemispheres are also large, owing chiefly to the great size of the corpora striata, which already show a differentiation into caudate nucleus, putamen and globus pallidus. The pallium is reptilian in character, though its cortical area is more extensive. The geniculate bodies are very large (Bumm, Zeits. wiss. Zool. Bd. xxxviii., 1883, p. 43 o; Brandis, Arch. mikr. Anat. Bd. xli., 1893, p. 623, and xliii., 1894, p. 96, and xlv., 1895, p. 534; Boyce and Warrington, Phil. Trans. vol. cxcii., 1899, p. 293).

Among the Mammalia the Monotremata have a cerebellum which shows, in addition to the central lobe of the lower vertebrates, a flocculus on each side, and the two halves of the cerebellum are united by a ventral commissure, the pons varolii. The pallium is reptilian in its arrangement, but that part of it which Elliot Smith has named the neopallium is very large, both in the Ornithorynchus and Echidna, a fact very difficult to account for. In the latter animal the cortical area is so extensive as to be thrown into many and deep sulci, and yet the Echidna is one of the lowliest of mammals in other respects. A wellmarked rhinal fissure separates the pyriform lobe from the neopallium,

while, on the mesial surface, the hippocampal fissure separates the neopallium from the hippocampal area. Just below the hippocampal fissure a specially coloured tract indicates the first appearance of the fascia dentata (see fig. 20). The anterior commissure is divided, as in reptiles, into dorsal and ventral parts, of which the latter is the larger (fig. 20, Comm. V. and D.), while just behind the dorsal part is the first appearance of the fimbria or fornix. In addition to the two fissures already named, there is, in the Echidna, one which in position and mode of formation corresponds with the Sylvian fissure of higher mammals. Elliot Smith, however, wisely refuses to homologize it absolutely with that fissure, and proposes the name of pseudosylvian for it. The pineal body is rudimentary, and the optic lobes are now, and throughout the Mammalia, subdivided into four *corpora quadrigemina*.

Among the Marsupialia the Tasmanian devil (*Sarcophilus*) gives a very good idea of a generalized mammalian brain, and shows a large development of the parts concerned in the sense of smell.

From *Cat R C S England*.

Fig. 19. - Ventral and Dorsal Views of the Brain of Ornithorynchus.

The most important advance on the monotreme brain is that the calcarine fissure has now appeared on the posterior part of the mesial surface and causes a bulging into the ventricle, called the calcar avis or hippocampus minor, just as the hippocampal fissure causes the hippocampus major (Gervais, *Nouv. Arch. Mus.* tom. v., 1869; Ziehen, *Jenaische Denkschr.* Bd. vi., 1897).

From *Cat R C S England*.

Fig. 20. - Mesial and Lateral Views of the Brain of Ornithorynchus.

From *Cat R C S England*

Fig. 21. - Mesial and Lateral Views of the Brain of the Tasmanian Devil (*Sarcophilus*).

In the Eutheria or mammals above the marsupials, the cerebellum gradually becomes more complex, owing to the appearance of lateral lobes between the flocculus and the vermis, as well as the paraflocculus on the outer side of the flocculus. The corpus callosum now first appears as a bridge between the neopallia, and its development leads to the stretching of the hippocampal formation, so that in the higher mammals the hippocampus is only found in the lower and back part of the ventricle, while the rudiments of the dorsal part remain as the striae longitudinales on the corpus callosum. The dorsal part of the original anterior commissure becomes the fornix, and the paraterminal area is modified to form the septum lucidum. The first appearance of the fissure of Rolando is probably in some of the Carnivora, in which, as the *sulcus crucialis*, it forms the posterior boundary of the "ursine lozenge" described by Mivart (*Journ. Linn. Soc.* vol. xix., 1886) (see fig. 22, *Sulc. Cru.*). In the higher apes or Anthropeida the human fissures and sulci are largely recognizable, so that a gibbon's brain, apart from all question of comparative anatomy, forms a useful means of demonstrating to a junior class the main gyri and sulci of Man in a simple and diagrammatic way. The main points of difference, apart from greater simplicity, are that the central lobe or island of Reil is exposed on the surface of the brain, as it is in the human foetus, and that the anterior part of the occipital lobe has a well-marked vertical sulcus, called the simian sulcus or *Affenspalte*; this often has a semilunar shape with its convexity forward, and is then called the *sulcus*

From *Cat. R.C.S. England*.

22. - Dorsal and Lateral Views of the Brain of a Ratel (*Mellivora indica*).

lunatus. It is usually concealed in European brains by the overgrowth of the surrounding gyri, but it occasionally remains, though less frequently than in the brains of Egyptian fellaheen. Its relation to the white stria of Gennari is especially interesting, and is recorded by Elliot Smith in the *Anatomischer Anzeiger*, Bd. xxiv., 1904, p. 43 6. The rhinal fissure, which is so characteristic a feature of the lower mammals, almost disappears in Man, and is only represented by the incisura temporalis (see fig. 11, i.t). The hippocampal fissure persists with little modification all through the mammalian class. The calcarine fissure remains with many modifications from the marsupials to man, and in view of the famous controversy of 1864, in which Owen, Huxley and the then bishop of Oxford took part, it is interesting to note that its hippocampus minor can now be clearly demonstrated, even in the Marsupialia. Another

very ancient and stable sulcus is the orbital, which is a simple antero-posterior line until Man is reached (see fig. 23, Sulc. Orb.). The great point of importance, however, in the evolution of the mammalian brain is the gradual suppression of the olfactory region, and the development of the neopallium, a development which takes a sudden stride between the Anthropoid apes and Man. (For further particulars of this and other points in the comparative anatomy of the brain, see Catalogue of the Physiological Series of the Museum of the Royal College of Surgeons of England, vol. ii. 2nd ed., by R. H. Burne and G. Elliot Smith, London, 1902.)

Embryology.

The brain, like the rest of the nervous system, is developed from the ectoderm or outer layer of the embryo by the formation of a groove in the mid-dorsal line. The lips of this medullary groove unite to form a canal beginning at the place where the neck of the embryo is to be. The part of the neural canal in front of the earliest union forms the brain and very early becomes constricted into three vesicles, to which the names of prosencephalon, mesencephalon and rhombencephalon are now usually given. The simple tubular brain we have seen as a permanent arrangement in *Amphioxus*, but the stage of the three vesicles is a transitory one, and is not found in the adult of any existing animal. From the sides of the prosencephalon, the optic vesicles grow out before the neural tube is completely closed, and eventually form the optic nerves and retinae, while, soon after this, the cerebral hemispheres bulge from the antero-dorsal part of the first primary vesicle, their points of evagination being the foramina of Munro. From the ventral parts of these cerebral hemispheres the olfactory lobes are constricted off, while just behind the openings of the foramina of Munro a constriction occurs which divides the prosencephalon into two secondary vesicles, the anterior of which, containing the foramina of Munro, is called the telencephalon, while the posterior is the thalamencephalon or diencephalon. A constriction also occurs in the hind vesicle or rhombencephalon, dividing it into an anterior part, the metencephalon, from which the cerebellum is developed, and a posterior or myelencephalon, the primitive medulla oblongata. At this stage the general resemblance of the brain to that of the lamprey is striking.

Before the secondary constrictions occur three vertical flexures begin to form. The first is known as the cephalic, and is caused by the prosencephalon bending sharply downward, below and in front of the mesencephalon. The second is the cervical, and marks the place where the brain ends and the spinal cord begins; the concavity of this flexure is ventral. The third to appear has a ventral convexity and is known as the pontine, since it marks the site of the future pons Varolii; it resembles the permanent flexure in the reptilian brain.

From *Cat R C S England*

Fig. 23. - Lateral view of cerebral hemisphere of Gorilla (*Anthropopithecus gorilla*).

It will now be seen that the original neural canal, which is lined by ciliated epithelium, forms the ventricles of the brain, while superficial to this epithelium (ependyma) the grey and white matter is subsequently formed. It has been shown by His that the whole neural tube may be divided into dorsal or alar, and ventral or basal laminae, and, as the cerebral hemispheres bud out from the dorsal part of the anterior primary vesicle, they consist entirely of alar laminae. The most characteristic feature of the human and anthropoid brain is the rapid and great expansion of these hemispheres, especially in a backward direction, so that the mesencephalon and metencephalon are hidden by them from above at the seventh month of intra-uterine life. At first the foramina of Munro form a communication not only between the third and lateral ventricles, but between the two lateral ventricles, so that the cavity of each hemisphere is continuous with that of the other; soon, however, a median longitudinal fissure forms, into which the mesoderm grows to form the falx, and so the foramina of Munro are constricted into a V-shaped canal. In the floor of the hemispheres the corpora striata are developed at an early date by a multiplication of nerve cells, and on the external surface a depression, called the Sylvian fossa, marks the position of the future central lobe, which is afterwards hidden as the lips of the fossa (opercula) gradually close in on it to form the Sylvian fissure. The real fissures are complete infoldings of the whole thickness of the vesicular wall and produce swellings in the cavity. Some of them, like the choroidal on the mesial surface, are developed very early, while the vesicle is little more than epithelial, and contain between their walls an inpushing of mesoderm to form the choroid plexus. Others, like the hippocampal and

calcarine, appear in the second and third months and correspond to invaginations of the nervous tissue, the hippocampus major and minor. The sulci appear later than the fissures and do not affect the internal cavity; they are due to the rapid growth of the cortex in certain areas. The corpus callosum and fornix appear about the third month and their development is somewhat doubtful; they are probably modifications of the lamina terminalis, but they may be secondary adhesions between the adjacent surfaces of the cerebral hemispheres where the cortical grey matter has not covered the white. They begin at their antero-ventral part near the genu of the corpus callosum and the anterior pillars of the fornix, and these are the parts which first appear in the lower mammals. The original anterior vesicle from which the hemispheres evaginate is composed, as already shown, of an anterior part or telencephalon and a posterior or thalamencephalon; the whole forming the third ventricle in the adult. Here the alar and basal laminae are both found, but the former is the more important; from it the optic thalami are derived, and more posteriorly the geniculate bodies. The anterior wall, of course, is the lamina terminalis, and from it are formed the lamina cinerea, the corpus callosum, fornix and septum lucidum. The roof largely remains epithelial and is invaginated into the ventricle by the mesoderm to form the choroid plexuses of the third ventricle, but at the posterior part it develops the ganglia habenulae and the pineal body, from a structure just in front of which both a lens and retinal elements are derived in the lower forms. This is one great difference between the development of this organ and that of the true eyes; indeed it has been suggested that the pineal is an organ of thermal sense and not the remains of a median eye at all. The floor of the third ventricle is developed from the basal laminae, which here are not very important and from which the tuber cinereum and, until the fourth month, single corpus mammillare are developed. The infundibulum or stalk of the posterior part of the pituitary body at first grows down in front of the tuber cinereum and, according to Gaskell's theory, represents an ancestral mouth to which the ventricles of the brain and the central canal of the cord acted as the stomach and intestine (*Quart. Journ. of Mic. Sci.* 31, p. 379; and *Journ. of Phys.* v. 10, p. 153). The reason why the basal lamina is here small is because it contains the nuclei of no cranial nerves. The anterior and posterior commissures appear before the middle and the middle before the corpus callosum, as they do in phylogeny. In connexion with the thalamencephalon, though not really belonging to it, may be mentioned the anterior lobes of the pituitary body; these begin as an upward diverticulum from the posterior wall of the primitive pharynx or stomatodaeum about the fourth week. This pouch of Rathke, as it is called, becomes nipped off by the developing base of the skull, and its bifid blind end meets and becomes applied to the posterior part of the body, which comes down from the brain. In the mesencephalon the alar laminae form the corpora quadrigemina; these at first are bigeminal and hollow as they are in the lower vertebrates. The basal laminae thicken to form the crura cerebri. In the rhombencephalon the division into basal and alar laminae is better marked than in any other part; there is a definite groove inside the fourth ventricle, which remains in the adult as the superior and inferior fovea and which marks the separation between the two laminae. In the basal laminae are found the deep origins of most of the motor cranial nerves, while those of the sensory are situated in the alar laminae. The roof of the fourth ventricle widens out very much and remains largely epithelial as the superior and inferior medullary vela. The cerebellum develops in the anterior part of the roof of the rhombencephalon as two lateral rudiments which unite in the mid line and so form a transverse bar similar to that seen in the adult lamprey; at the end of the second month the flocculus and paraflocculus become marked, and later on a series of transverse fissures occur dividing the various lobes. Of the cerebellar peduncles the inferior develops first (third month), then the middle forming the pons (fourth month), and lastly the superior (fifth month) (Elliot Smith, *Review of Neurology and Psychiatry*, October 1903; W. Kuithan, "Die Entwicklung des Kleinhirns bei Sdugetieren," *Munchener Med. Abhandl.*, 1895; B. Stroud, "Mammalian cerebellum," *Journ. of Comp. Neurology*, 1895). Much of our knowledge of the tracts of fibres in the brain is due to the fact that they acquire their white sheaths at different stages of development, some long after birth.

For further details and references see Quain's *Anat.* vol. i. (1908); Minot's *Human Embryology* (New York); W. His, *Anat. menschlicher Embryonen* (Leipzig, 1881); Marshall's *Vertebrate Embryology*; Kolliker, *Grundriss der Entwicklungsgeschichte* (Leipzig, 1880); A. Keith, *Human Embryology and Morphology* (London, 1904); O. Hertwig, *Handbuch der vergleichenden und experimentellen Entwicklungslehre der Wirbeltiere*, Bd. 2, part 3 (Jena, 1902-1906); *Development of the Human Body*, J. P. McMurrich (1906).

(F. G. P.)

2. Physiology

The nervous system has as its function the co-ordinating of the activities of the organs one with another. It puts the organs into such mutual relation that the animal reacts as a whole with speed, accuracy and self-advantage, in response to the environmental agencies which stimulate it. For this office of the nervous system there are two fundamental conditions. The system must be thrown into action by agencies at work in the environment. Light, gravity, mechanical impacts, and so on, which are conditions significant for animal existence, must find the system responsive and through it evoke appropriate activity in the animal organs. And in fact there have been evolved in the animal a number of structures called receptive organs which are selectively excitable by different environmental agencies. Connected with these receptive organs lies that division of the nervous system which is termed afferent because it conducts impulses inwards towards the nervous centres. This division consists of elongated nerve-cells, in man some two million in number for each half of the body. These are living threads of microscopic tenuity, each extending from a receptive organ to a central nervous mass. These central nervous masses are in vertebrates all fused into one, of which the part which lies in the head is especially large and complex, because directly connected with particularly important and delicate receptive organs. The part of the central nervous organ which lies in the head has, in consequence of its connexion with the most important receptive organs, evolved a dominant importance in the nervous system, and this is especially true of the higher animal forms. This head part of the central nervous organ is sufficiently different from the rest, even to anatomical examination, to have received a separate name, the brain. But the fact of its having received a separate name ought not to obscure the singleness and solidarity of the whole central nervous organ as one entity. The functions of the whole central nervous organ from region to region are essentially similar throughout. One of its essential functions is reception, via afferent nerves, of nervous impulses generated in the receptive organs by environmental agents as stimuli. In other words, whatever the nature of the agent, its result on the receptive organs enters the central nervous organ as a nervous impulse, and all segments of the central nervous organ receive impulses so generated. Further, it is not known that nervous impulses present qualitative differences among themselves. It is with these impulses that the central nervous organ whether spinal cord or brain has to deal.

Material and Psychical Signs of Cerebral Activity. - In the central nervous organ the action resulting from entrant impulses has issue in three kinds of ways. The reaction may die out, be suppressed, and so far as discoverable lead to nothing; or the impulses may evoke effect in either or both of two forms. Just as from the receptive organs, nerves lead into the central nervous organ, so conversely from the central organ other nerves, termed efferent, lead to various organs of the body, especially glands and muscles. The reaction of the central nervous organ to impulses poured into it commonly leads to a discharge of impulses from it into glands and muscles. These centrifugal impulses are, so far as is known, qualitatively like the centripetal impulses. On reaching the glands and muscles they influence the activity of those organs. Since those organs are therefore the mechanisms in which the ultimate effect of the nervous reaction takes place, they are often termed from this point of view effector organs. A change ensuing in effector organs is often the only sign an observer has that a nervous reaction has occurred, unless the nervous system under observation be the observer's own.

If the observer turns to his own nervous system for evidence of reaction, he meets at once in numberless instances with sensation as an outcome or sign of its reaction. This effect he cannot show to any being beside himself. He can only describe it, and in describing it he cannot strictly translate it into any term of material existence. The unbridged gulf between sensation and the changes produced in effector organs necessitates a separate handling of the functions of the nervous system according as their office under consideration is sensation or material effect. This holds especially in the case of the brain, and for the following reasons.

Psychosis and the Fore-Brain. - Hippocrates wrote, " It is through the brain that we become mad, that delirium seizes us, that fears and terrors assail us." " We know that pleasure and joy on the one hand and pain and grief on the other are referable to the brain. It is in virtue of it that we think, understand, see, hear, know ugliness and beauty, evil

and good, the agreeable and the disagreeable." Similarly and more precisely Descartes indicated the brain, and the brain alone, as the seat of consciousness. Finally, it was Flourens who perhaps first definitely insisted on the restriction of the seat of consciousness in higher animals to that part of the brain which is the fore-brain. A functional distinction between the fore-brain and the remainder of the nervous system seems, in fact, that consciousness and physical reactions are adjunct to the fore-brain in a way in which they are not to the rest of the system. After transection of the spinal cord, or of the brain behind the fore-brain, psychical phenomena do not belong to the reactions of the nervous arcs posterior to the transection, whereas they do still accompany reactions of the nervous arcs in front and still connected with the fore-brain. A man after severance of the spinal cord does not possess in the strict sense consciousness of the limbs whose afferent nerves lie behind the place of spinal severance. He can see them with his eyes, and if the severance lie between the arms and the legs, can feel the latter with his hands. He knows them to be a part of his body. But they are detached from his consciousness. Sensations derived from them through all other channels of sense than their own do not suffice to restore them in any adequate measure to his consciousness. He must have the sensations so called "resident" in them, that is, referred to them, without need of any logical inference. These can be yielded only by the receptive organs resident in the part itself, its skin, its joints, its muscles, &c., and can only be yielded by those receptive organs so long as the nerve impulses from them have access to the fore-brain. Consciousness, therefore, does not seem to attach to any portion of the nervous system of higher animals from which the fore-brain has been cut off. In the dog it has been found that no sign of memory, let alone intelligence, has been forthcoming after removal of the greater part of the forebrain.

In lower vertebrates it is not clear that consciousness in primitive form requires always the co-operation of the fore-brain. In them the fore-brain does not seem a *conditio sine qua non* for psychosis - so far as we may trust the rather hazardous inferences which study of the behaviour of fish, &c., allows. And the difference between higher and lower animal forms in respect of the fore-brain as a condition for psychosis becomes more marked when the Arthropoda are examined. The behaviour of some Insecta points strongly to their possessing memory, rudimentary in kind though it may be. But in them no homologue of the fore-brain of vertebrates can be indisputably made out. The head ganglia in these Invertebrates may, it is true, be analogous in function in certain ways to the brain of vertebrates. Some experiments, not plentiful, indicate that destruction of these head ganglia induces deterioration of behaviour such as follows loss of psychical functions in cases of destruction of the fore-brain in vertebrates. Though, therefore, we cannot be clear that the head ganglia of these Invertebrates are the same structure morphologically as the brain of vertebrates, they seem to hold a similar office, exercising analogous functions, including psychosis of a rudimentary kind. We can, therefore, speak of the head ganglia of Arthropods as a brain, and in doing so must remember that we define by physiological evidence rather than by morphological.

Cerebral Control over Lower Nervous Centres. - There accrues to the brain, especially to the fore-brain of higher Vertebrates, another function besides that of grafting psychical qualities upon the reactions of the nervous system. This function is exhibited as power to control in greater or less measure the pure reflexes enacted by the system. These pure reflexes have the character of fatality, in the sense that, given a particular stimulus, a particular reaction unvaryingly follows; the same group of muscles or the same gland is invariably thrown into action in the same way. Removal of the fore-brain, i.e. of that portion of the central nervous organ to which psychosis is adjunct, renders the nervous reactions of the animal more predictable and less variable. The animal, for instance, a dog, is given over more completely to simple reflexes. Its skin is touched and it scratches the spot, its jaw is stroked and it yawns, its rump is rubbed and it shakes itself, like a dog coming out of water; and these reactions occur fatally and inopportunely, for instance, when food is being offered to it, when the dog normally would allow no such insignificant skin stimuli as the above to defer his appropriate reaction. Goltz relates the behaviour of a dog from which almost the whole fore-brain had been removed. The animal lived healthily under the careful treatment accorded it. At feeding time a little quinine (bitter) added to its soup of meat and milk led to the morsels, after being taken into the mouth, being at once and regularly rejected. None was ever swallowed, nor was the slightest hesitation in their rejection ever obtained by any coaxing or command, or encouragement of the animal by the attendant who constantly had charge of it. On the other hand, directly an undoctored piece had entered the mouth it was swallowed

at once. Goltz threw to his own house-dog a piece of the same doctored meat. The creature wagged its tail and took it eagerly, then after receiving it into its mouth pulled a wry face and hesitated, astonished. But on encouragement to go on eating it the dog did so. Perhaps it deemed it unseemly to appear ungrateful to the giver and reject the gift. It overcame its reflex of rejection, and by its selfcontrol gave proof of the intact cerebrum it possessed.

There seems a connexion between consciousness and the power to modify reflex action to meet the exigencies of the occasion. Pure reflexes are admirably adapted to certain ends. They are reactions which have long proved advantageous to the phylum of which the existent animal is the representative embodiment. But the reflexes have a machine-like fatality, and conscious aim does not forerun their execution. The subject as active agent does not direct them. Yet they lie under the control of higher centres. The cough, the eye-closure, the impulse to smile, all these can be suppressed. The innate respiratory rhythm can be modified to meet the requirements of vocal utterance. In other words, the reaction of reflex arcs is controllable by the mechanism to whose activity consciousness is adjunct. The reflexes controlled are often reactions but slightly affecting consciousness, but consciousness is very distinctly operative with the centres which exert the control. It may be that the primary aim, object and purpose of consciousness is control. "Consciousness in a mere automaton," writes Professor Lloyd Morgan, "is a useless and unnecessary epiphenomenon." As to how this conscious control is operative on reflexes, how it intrudes its influence on the running of the reflex machinery, little is known.

The Cerebrum an Organ giving Adaptation and Readjustment of Motor Acts. - The exercise of this control and the acquirement of skilled actions have obviously elements in common. By skilled actions, we understand actions not innately given, actions acquired by training in individual experience. The controlling centres pick out from an ancestral motor action some part, and isolate and enhance that until it becomes a skilled act. The motor co-ordination ancestrally provided for the ring finger gives an extending of it only in company with extension of the fingers on either side of it. The isolated lifting of the ring finger can, however, soon be acquired by training. In such cases the higher centre with conscious effort is able to dissociate a part from an ancestral co-ordination, and in that way to add a skilled adapted act to the powers of the individual.

The nervous organs of control form, therefore, a special instrument of adaptation and of readjustment of reaction, for better accommodation to requirements which may be new. The attainment of more precision and speed in the use of a tool, or the handling of a weapon, means a process in which nervous organs of control modify activities of reflex centres themselves already perfected ancestrally for other though kindred actions. This process of learning is accompanied by conscious effort. The effort consists not so much in any course of reasoning but rather in the acquiring of new sensorimotor experience. To learn swimming or skating by simple cogitation or mere visual observation is of course impossible. The new ideas requisite cannot be constructed without motor experience, and the training must include that motor experience. Hence the training for a new skilled motor manoeuvre must be simply ad hoc, and is of itself no training for another motor co-ordination.

The more complex an organism the more points of contact does it have with its environment, and the more does it need readjustment amid an environment of shifting relationships. Hence the organs of consciousness and control, being organs of adaptation and readjustment of reaction, will be more pronounced the farther the animal scale is followed upward to its crowning species, man. The cerebrum and especially the cerebral cortex may be regarded as the highest expression of the nervous organ of individual adaptation of reactions. Its high development in man makes him the most successful animal on earth's surface at the present epoch. The most important part of all this adjustment in his case, as he stands now, consists doubtless in that nervous activity which is intellectual. The mentality attached to his cerebrum includes reason in higher measure than is possessed by the mentality of other animals. He, therefore, more than they, can profitably forecast the future and act suitably to meet it from memory of the past. The cerebrum has proved itself by his case the most potent weapon existent for extending animal dominance over the environment.

Means and Present Aims of Physiological Study of the Brain. - The aspects of cerebral activity are therefore twofold. There is the contribution which it makes to the behaviour of the animal as seen in the creature's doings. On the other hand there is its product in the psychical life of the animal. The former of these is subject matter for physiology; the

latter is especially the province of psychology. Physiology does, however, concern itself with the psychical aspect of cerebral functions. Its scope, embracing the study of the bodily organs in regard to function, includes the psychic as well as the material, because as just shown the former inextricably interlace with the latter. But the relation between the psychic phenomena and the working of the brain in regard to any data of fundamental or intimate character connecting the two remains practically as unknown to us as to the Greek philosophers. What physiology has at present to be content with in this respect is the mere assigning of certain kinds of psychic events to certain local regions of the cerebrum. This primitive quest constitutes the greater part of the "neurology" of our day, and some advance has been made along its lines. Yet how meagre are really significant facts will be clear from the brief survey that follows. Before passing finally from these general considerations, we may note that it becomes more and more clear that the brain, although an organ than can be treated as a whole, is complex in the sense that separable functions belong in some measure to its several parts.

The means principally adopted in studying the functions of the brain - and it must be remembered that this study in its present phase is almost exclusively a mere search for localization - are four. These are the physiological, the clinico-pathological, the histological and the zoological. The first named proceeds by observing the effects of artificial excitation, chiefly electric, of various parts of the brain, and the defects produced by destruction or removal of circumscribed portions. The clinicopathological proceeds by observing the disturbances of body and mind occurring in disease or injury, and ascertaining the extent of the disease or injury, for the most part post mortem. The histological method examines the microscopic structure of the various regions of the brain and the characters and arrangement of the nerve-cells composing it. The zoological follows and compares the general features of the brain, as represented in the various types of animal creation.

It is on the functions of the fore-brain that interest now mainly focuses, for the reasons mentioned above. And the interest in the fore-brain itself chiefly attaches to the functions of its cortex. This is due to several causes. In man and the animals nearest him the cortex forms by far the larger part of the whole cerebral hemisphere. More than any other part it constitutes the distinctively human feature. It lies accessible to various experimental observations, as also to traumatic lesions and to the surgeon's art. It is composed of a great unbroken sheet of grey matter; for that reason it is a structure wherein processes of peculiar interest for the investigation in view are likely to occur. To make this last inference more clear a reference to the histology of nervous tissue must be made. The whole physiological function of the nervous system may be summed up in the one word "conduction." This "conduction" may be defined as the transmission of states of excitement (nerve-impulses) along the neural arcs composing the system. The whole nervous system is built up of chains of nerve-cells (neurones) which are nervous conductors, the chains often being termed arcs. Each neurone is an elongated cell which transmits nerve-impulses from its one end to its other, without so far as is known modifying the impulses in transit, unless in that part of the nerve-cell where the nucleus lies. That part of the neurone or nerve-cell is called the perikaryon or cellbody, and from that part usually many branches of the cell (each branch being a nerve-fibre) ramify. There is no evidence that impulses are modified in transit along a branch of a nerve-cell, but there is clear evidence of manifold modification of nerve-impulses in transit along the nerve-arcs of the nervous system. These nerve-arcs are neurone-chains. In them one neurone continues the line of conduction where the immediately foregoing neurone left it. That is, the neurones are laid in conductive series, the far end of one apposed to the near end of its precursor. The place of juxtaposition of the end of one neurone against the beginning of another is called the synapse. At it the conduction which has so far been wholly intra-neuronic is replaced by an inter-neuronic process, in which the nerve impulse passes from one neurone to the next. The process there, it is natural to think, must be physiologically different from that conductive process that serves for transmission merely within the neurone itself. It may be that to this inter-neuronic conduction are due the differences between conduction in nerve-arcs and nerve-trunks (nerve-fibres) respectively. Significant of the former are changes in rhythm, intensity, excitability and modifications by summation and inhibition; in fact a number of the main features of nervous reaction. These characters impressed upon conduction in nerve arcs (neurone-chains) would therefore be traceable to the intercalation of perikarya and synapses, for both these structures are absent from nerve-trunks. It is therefore probably to perikarya and synapses that the greater part of the co-ordination, elaboration

and differentiation of nervous reactions is due. Now, perikarya and synapses are not present in the white matter of the central nervous organ, any more than they are in nerve-trunks. They are confined exclusively to those portions of the central organ which consist of grey matter (so called from its naked-eye appearance). Hence it is to the great sheet of grey matter which enfolds the cerebrum that the physiologist turns, as to a field where he would expect to find evidences of the processes of cerebral co-ordination at work. It is therefore to items regarding the functions of the great sheet of cerebral cortex that we may now pass.

The Cerebral Cortex and its Functions. - The main question which vexed the study of the physiology of the cerebral hemispheres in the 19th century was whether differences of function are detectible in the different regions of the hemisphere and especially in those of its cortex. One camp of experimenters and observers held that the cortex was identical in function throughout its extent. These authorities taught that the various faculties and senses suffer damage in proportion to the amount of cortex removed or injured, and that it is a matter of indifference what may be the particular region wherein the destruction takes place. Against this an opposed set of observers held that different regions perform different functions, and this latter "differential" view was raised in two wholly dissimilar forms in the first and last quarters of the 19th century respectively. In the first quarter of the century, a school, with which the name of Gall is prominently associated, held that each faculty of a set of particular so-called "faculties," which it assumed constituted intelligence, has in the brain a spatially separate organ proper to itself. Gall's doctrine had two fundamental propositions. The first was that intelligence resides exclusively in the brain: the second, that intelligence consists of twenty-seven "faculties," each with a separate local seat in the brain. The first proposition was not new. It is met with in Hippocrates, and it had been elaborated by Descartes and others. But Bichat in his *Anatomie générale* had partly wandered from the gradually established truth and referred the emotions to the visceral organs, returning to a naïve view popularly prevalent. Gall's first proposition was probably raised especially in reaction against Bichat. But Gall's proposition was retrograde from the true position of the science of his time. Flourens and others of his contemporaries had already shown not only that intelligence was resident exclusively in the brain, but that it was resident exclusively in that part of the brain which is the fore-brain. Now Gall placed certain of his twenty-seven intellectual faculties in the cerebellum, which is part of the hind-brain.

Phrenology. - As to Gall's second proposition, the set of faculties into which he analysed intelligence shows his power of psychological analysis to have been so weak that it is matter of surprise his doctrine could obtain even the ephemeral vogue it actually did. Among his twenty-seven faculties are, for instance, "l'amour de la progéniture, l'instinct carnassier, l'amitié, la ruse, la sagacité comparative, l'esprit métaphysique, le talent poétique, la mimique," &c. Such crudity of speculation is remarkable in one who had undoubtedly considerable insight into human character. Each of the twenty-seven faculties had its seat in a part of the brain, and that part of the brain was called its "organ." The mere spatial juxtaposition or remoteness of these organs one from another in the brain had, according to Gall, an influence on the constitution of the mind. "Comme l'organe des arts est placé loin de l'organe du sens des couleurs, cette circonstance explique pourquoi les peintres d'histoire ont été rarement coloristes." All these "faculty-organs" were placed by Gall at the surface of the brain. "This explains the correspondence which exists between craniology and the doctrine of the functions of the brain (cerebral physiology), the single aim of my researches." Gall wrote that he found the bump of pride (*la bosse de l'orgueil*) as far down in the animal series as the goat. Broussais traced the "organ" of veneration as far down as the sheep. Gall found the bump of murder (*bosse du meurtre*) in the carnivora. Later it was traced also in herbivora. Broussais added apologetically that "the herbivora cause a real destruction of plants." Gall's doctrine enjoyed enormous vogue. He himself had the gifts and the demerits of quackery. His doctrine possessed, apart from its falsity, certain other mischievous qualities. "Que ces hommes si glorieux, qui font égorger les nations par millions, sachent qu'ils n'agissent point de leur propre chef, que c'est la nature qui a placé dans leur tour la rage de la destruction." One of his scientific opponents rejoined, "Nay, it is not that which they should know. What they should know is that if providence has allowed to man the possibility of doing evil, it has also endowed him with the power to do good." The main cause of the success of phrenology (q.v.) has been no doubt the common desire of men to read the characters and hidden thoughts of others by external signs. Each bump or "bosse" on the cranium was supposed to indicate the existence and degree of development of

one or other of the twenty-seven "faculties." One such "bosse" showed the development of the organ of "goodness," and another the development of the organ of "murder." Such an easy means to arrive at information so curious delighted many persons, and they were not willingly undeceived.

Modern Localization Doctrines. - The crude localization of the phrenologists is therefore too clumsy to possess an interest it might otherwise have had as an early expression of belief in cerebral localization, a belief which other labours have subsequently justified, although on facts and lines quite different from these imagined by Gall and his followers. Patient scientific toil by the hands of E. Hitzig and D. Ferrier and their followers has slowly succeeded in obtaining certain facts about the cortex cerebri which not only show that different regions of it are concerned with different functions, but, for some regions at least, outline to some extent the kind of function exercised. It is true that the greater part of the cortex remains still terra incognita unless we are content with mere descriptive features concerning its coarse anatomy. For several scattered regions some knowledge of their function has been gained by physiological investigation. These scattered regions are the visual, the auditory, the olfactory and the precentral. The grey matter of the cerebral cortex is broadly characterized histologically by the perikarya (nerve-cells bodies) which lie in it possessing a special shape; they are pyramidal. The dendrite fibres of these cells - that is, their fibres which conduct towards the perikarya - are branches from the apex and corners of the pyramid. From the base often near its middle arises one large fibre - the axone fibre, which conducts impulses away from the perikaryon. The general appearance and arrangement of the neurones in a particle of cortical grey matter are shown in fig. 15, above. The apices of the pyramidal perikarya are turned towards the free surface of the cortex. The figure as interpreted in terms of functional conduction means that the cortex is beset with conductors, each of which collects nerve-impulses, from a minute but relatively wide field by its branched dendrites, and that these nerve-impulses converge through its perikaryon, issue by its axone, and are carried whithersoever the axone runs. In some few cells the axone breaks up into branches in the immediate neighbourhood of its own perikaryon in the cortex. In most cases, however, the axone runs off into the subjacent white matter, leaving the cortex altogether. On reaching the subjacent white matter it mingles with other fibres and takes one of the following courses: - (1) to the grey matter of the cortex of the same hemisphere, (2) to the grey matter of the cortex of the opposite hemisphere, (3) to the grey matter of the pons, (4) to the grey matter of the bulb or spinal cord. It is noteworthy that the dendrite fibres of these cortical neurones do not transgress the limits of the grey cortex and the immediate neighbourhood of the perikaryon to which they belong; whereas the discharging or axone fibre does in the vast majority of cases transgress the limits of the grey matter wherein its perikaryon lies. The cortical neurone therefore collects impulses in the region of cortex just about its perikaryon and discharges them to other regions, some not cortical or even cerebral, but spinal, &c. One question which naturally arises is, do these cells spontaneously generate their impulses or are they stirred to activity by impulses which reach them from without? The tendency of physiology is to regard the actions of the cortex as reactions to impulses communicated to the cortical cells by nerve-channels reaching them from the sense organs. The neurone conductors in the cortex are in so far considered to resemble those of reflex centres, though their reactions are more variable and complex than in the use of the spinal. The chains of neurones passing through the cortex are more complex and connected with greater numbers of associate complex chains than are those of the spinal centres. But just as the reflex centres of the cord are each attached to afferent channels arriving from this or that receptive-organ, for instance, tactile-organs of the skin, or spindles of muscle-sense, &c., so the regions of cortex whose function is to-day with some certainty localized seem to be severally related each to some particular sense-organ. The localization, so far as ascertained, is a localization which attaches separate areas of cortex to the several species of sense, namely the visual, the auditory, the olfactory, and so on. This being so, we should expect to find the sensual representation in the cortex especially marked for the organs of the great distance-receptors, the organs which - considered as sense organs - initiate sensations having the quality of projicience into the sensible environment. The organs of distance-receptors are the olfactory, the visual and the auditory. The environmental agent which acts as stimulus in the case of the first named is chemical, in the second is radiant, and in the last is mechanical.

Olfactory Region of Cortex. - There is phylogenetic evidence that the development of the cortex cerebri first occurred in connexion with the distance-receptors for chemical stimuli - that is, expressed with reference to psychosis, in connexion with olfaction. The olfactory apparatus even in mammals still exhibits a neural architecture of primitive pattern. The cell which conducts impulses to the brain from the olfactory membrane in the nose resembles cells in the skin of the earthworm, in that its cell-body lies actually amid the epithelium of the skin-surface and is not deeply buried near or in the central nervous organ. Further, it has at its external end tiny hairlets such as occur in specially receptive-cells but not usually in purely nervous cells. Hence we must think that one and the same cell by its external end receives the environmental stimulus and by its deep end excites the central nervous organ. The cell under the stimulation of the environmental agent will therefore generate in itself a nervous impulse. This is the clearest instance we have of a neurone being actually excited under natural circumstances by an agent of the environment directly, not indirectly. The deep ends of these olfactory neurones having entered the central nervous organ come into contact with the dendrites of large neurones, called, from their shape, mitral. In the dog, an animal with high olfactory sense, the axone of each olfactory neurone is connected with five or six mitral cells. In man each olfactory neurone is connected with a single mitral cell only. We may suppose that the former arrangement conduces to intensification of the central reaction by summation. At the same time it is an arrangement which could tend to smother sharp differentiation of the central reaction in respect to locality of stimulus at the receptive surface. Considering the diffuse way in which olfactory stimuli are applied in comparison, for instance, with visual, the exact localization of the former can obviously yield little information of use for locating the exact position of their source. On the other hand, in the case of visual stimuli the locus of incidence, owing to the rectilinear propagation of light, can serve with extraordinary exactitude for inferences as to the position of their source. The adaptation of the neural connexions of the two organs in this respect is therefore in accord with expectation.

The earliest cerebral cortex is formed in connexion with the neurone-chains coming into the central nervous organ from the patch of olfactory cells on the surface of the head. The region of cerebrum thus developed is the so-called olfactory lobe and hippocampal formation. The greater part of the cerebral hemisphere is often termed the pallium, because as its development extends it folds cloak-wise over the older structures at the base of the brain. The olfactory lobe, from its position, is sometimes called the pallium basale, and the hippocampal formation the pallium marginale; and these two parts of the pallium form what, on account of their phylogenetic history, Elliott Smith well terms the archipallium. A fissure, the limbic fissure, marks off more or less distinctly this archipallium from the rest of the pallium, a remainder which is of later development and therefore designated by Elliott Smith the neopallium. Of the archipallium, the portion which constitutes the olfactory lobe is well formed in the selachian fish. In the reptilian cerebrum the hippocampal region, the pallium marginale, coexists in addition. These are both of them olfactory in function. Even so high up in the animal scale as the lowest mammals they still form one half of the entire pallium. But in the higher apes and in man the olfactory portion of the pallium is but a small fraction of the pallium as a whole. It is indeed so relatively dwarfed and obscured as to be invisible when the brain is regarded from the side or above. The olfactory part of the pallium exhibits little variation in form as traced up through the higher animals. It is of course small in such animals as Cetaceans, which are anosmatic. In highly osmatic such as the dog it is large. The uncus, and subiculum cornu ammonis of the human brain, belong to it. Disease of these parts has been accompanied by disturbance of the sense of smell. When stimulated electrically (in the rabbit) the olfactory pallium occasions peculiar torsion of the nose and lips (Ferrier), and change, often slowing or arrested, of the respiratory rhythm. P. E. Flechsig has shown that the nerve-fibres of this part of the pallium attain the final stage of their growth, that is to say, acquire their sheaths of myelin, early in the ontogenetic development of the brain. In the human brain they are myelinate before birth. This is significant from the point of view of function, for reasons which have been made clear especially by the researches of Flechsig himself.

The completion of the growth of the nerve-fibres entering and leaving the cortex occurs at very various periods in the growth of the brain. Study of the development of the fibres entering and leaving the various regions of the pallium in the human brain, discovers that the regions may be conveniently grouped into those whose fibres are perfected before birth and those whose fibres are perfected during the first post-natal month, and those whose fibres are

perfected after the first but before the end of the fourth post-natal month. The regions thus marked out by completion before birth are five in number, and are each connected, as also shown by collateral evidence, with one or other particular species of sense-organ. And these regions have another character in common recognizable in the nerve-fibres entering and leaving them, namely, they possess fibres projected to or from parts of the nervous system altogether outside the cortex itself. These fibres are termed " projection " fibres. Other regions of the cortex possess fibres coming from or going to various regions of the cortex itself, but do not possess in addition, as do the five primitive cortical fields, the fibres of projection. So that the facts established by Flechsig for the regions of pallium, which other evidence already indicated as connected with the sense-organ of smell, support that evidence and bring the olfactory region of cortex into line with certain other regions of cortex similarly primarily connected with organs of sense.

It will be noted that what has been achieved by these various means of study in regard to the region of the cortex to which olfactory functions are attributed amounts at present to little more than the bare ascertainment of the existence there of nervous mechanisms connected with olfaction, and to the delimiting roughly of their extent and of their ability to influence certain movements, and in man sensations, habitually associated with exercise of the olfactory organ. As to what part the cortical mechanism has in the elaboration or association of mental processes to which olfaction contributes, no evidence worth the name seems as yet forthcoming. In this respect our knowledge, or rather our want of knowledge, of the functions of the olfactory region of the cortex, is fairly typical of that to which we have to confess in regard to the other regions of the cortex, even the best known.

Visual Region of the Cortex. - There is a region of the cortex especially connected with vision. The optic nerve and tract constitute the second link in the chain of neurones joining the retina to the brain. They may therefore be regarded as the equivalent of an intraspinal tract connecting the deep ends of the afferent neurones from the skin with higher nervous centres. In the bony fishes the optic tract reaches the grey matter of the optic lobe, a part of the mid-brain, to which the so-called anterior colliculus is equivalent in the mammalian brain. In the optic lobe the axones of the neurones of the optic tract meet neurones whose axones pass in turn to the motor neurones of the muscles moving the eyeballs, and also to other motor neurones. But in these fish the optic tract has no obvious connexion with the fore-brain or with any cerebral pallium. Ascending, however, to the reptilian brain is found an additional arrangement: a small portion of the optic tract passes to grey matter in front of the optic lobe. This grey matter is the lateral geniculate body. From this geniculate body a number of neurones extend to the pallial portion of the cerebrum, for in the reptilian brain the pallium is present. The portion of pallium connected with the lateral geniculate body lies above and behind the olfactory or archipallium. It is a part of what was mentioned above as neopallium.

In the mammalian brain the portion of the optic tract which goes to the optic lobe (ant. colliculus of the mammal) is dwarfed by great development of the part which goes to the geniculate body and an adjoining grey mass, the pulvinar (part of the optic thalamus). From these latter pass large bands of fibres to the occipital region of the neopallium. In mammals this visual region of the cortex is distinguished in its microscopic features from the cortex elsewhere by a layer of myelinate nerve-fibres, many of which are the axones of neurones of the geniculate body and pulvinar. Thus, whereas in the bony fishes all the third links of the conductive chain from the retina lead exclusively to the final neurones of motor centres for muscles, in the mammal the majority of the third links conduct to grey matter of the cortex cerebri.

The application of electric stimuli to the surface of the cortex does not for the greater part of the extent of the cortex evoke in higher mammalian brains any obvious effect; no muscular act is provoked. But from certain limited regions of the cortex such stimulation does evoke muscular acts, and one of these regions is that to which the neurones forming the third link of the conductive chain from the retina pass. The muscular acts thus provoked from that region are movements of the eyeballs. and of the neck turning the head. In the monkey the movement is the turning of both eyeballs and the head away from the side stimulated. In short, the gaze is directed as to an object on the opposite side. The newer conductive chain traceable through the cortex does therefore, after all, like the older one through the

optic lobe, lead ultimately to the motor neurones of the eye muscles and the neck, only it takes a longer course thither and is undoubtedly much more complex. What gain is effected by this new and as it were alternative and longer route, which takes a path up to the cerebral cortex and down again, we can only conjecture, but of one point we may rest well assured, namely, that a much richer inter-connexion with other arcs of the nervous system is obtained by the path that passes via the cortex. The functional difference between the old conductive circuit and the new can at present hardly indeed be stated even in outline. A natural inference might be that the phylogenetically older and less complex path is concerned with functions purely reflexmotor, not possessing sensation as an attribute. But fish, which possess only the older path, can be trained to seize bait of one colour and not of another colour, even against what appeared to be an original colour-preference in them. Such discrimination individually acquired seems to involve memory, though it may be rudimentary in kind. Where motor reaction to visual stimuli appears to involve memory - and without memory the training could hardly be effective - some germ of consciousness can hardly be denied to the visual reactions, although the reactions occurred in complete absence of a cortical path and indeed of a visual cortex altogether.

Removal of the visual pallium in the tortoise produces little or no obvious defect in vision; but in the bird such a lesion greatly impairs the vision of the eye of the side opposite to the lesion. The impairment does not, however, amount to absolute blindness. Schrader's hawk, after removal of the pallium, reacted to movements of the mice with which it was caged. But the reactions were impaired: they lacked the sustained purpose of the normal reactions. The bird saw the mice; that was certain, for their movements across its field of vision made it turn its gaze towards them. But on their ceasing to move, the reaction on the part of the bird lapsed. Neither did their continuing to move excite the attack upon them which would have been the natural reaction on the part of the bird of prey towards its food. The bird apparently did not recognize them as prey, but saw them merely as moving objects. It saw them perhaps as things to which mental association gave no significance. Similarly, a dog after ablation of the occipital lobes of the cortex is able to see, for it avoids obstacles in its path; but if food is offered to it or the whip held up to it, it does not turn towards the food or away from the whip. It sees these things as if it saw them for the first time, but without curiosity, and as if it had no experience of their meaning. It gives no hint that it any longer understands the meaning of even familiar objects so long as these are presented to it through the sense of vision. Destruction of the visual cortex of one hemisphere alone produces in the dog impairment of vision, not as in the bird practically exclusively in the opposite eye, but in one lateral half of each eye, and that half the half opposite the hemisphere injured. Thus when the cortex destroyed is of the right cerebral hemisphere, the resultant visual defect is in the left half of the field of vision of both eyes. And this is so in man also.

In man disturbances of sensation can be better studied because it is possible to obtain from him his description of his condition. The relation of the cortex cerebri to human vision can be summarized briefly as follows. The visual cortex is distinguishable in higher mammals by a thin white stripe, the stripe of Gennari, seen in its grey matter when that is sectioned. This stripe results from a layer of nerve-fibres, many of which are axones from the neurones of the lateral geniculate body and the pulvinar, the grey masses directly connected with the optic nerve-fibres. In the dog, and in such monkeys as the Macaque, the region of cortex containing this stripe traceable to optic fibres forms practically the whole occipital lobe. But in the manlike apes and in man this kind of cortex is confined to one region of the occipital lobe, namely, that of the calcarine fissure and the cuneus behind that. This region of cortex thus delimited in man is one of Flechsig's areas of earlier myelinization. It is also one of his areas possessing projection fibres; and this last fact agrees with the yielding by this area, when under electrical stimulation, of movements indicating that impulses have been discharged from it into the motor neurones of the muscles of the eyes and neck. Evidence from cases of disease show that destruction of the cortex of the upper lip of the calcarine fissure, say in the right half of the brain, causes in man impairment in the upper right-hand quadrant of both retinae: destruction of the lower lip of the fissure causes impairment in the lower righthand quadrants. Destruction of the calcarine region of one hemisphere produces therefore "crossed hemianopia," that is, loss of the opposite half of the field of vision. But in this hemianopia the region of central vision is always spared. That is, the piece of visual field which corresponds with the yellow spot of the retina is not affected in either eye, unless the calcarine regions of both hemispheres are

destroyed. This central point of vision is connected therefore not with one side of the brain only but with both.

The impairment of sight is more severe in men than in lower animals. Where the destruction of the visuo-sensory cortex in one calcarine region is complete, a candle-flame offered in the hemianopic field cannot even be perceived. It may hardly excite a reflex contraction of the pupil. In such cases the visual defect amounts to blindness. But this is a greater defect than is found in the dog even after entire removal of both occipital lobes. The dog still avoids obstacles as it walks. Its defect is rather, as said above, a complete loss of interest in the visual images of things. But a dog or monkey after loss of the visual cortex hesitates more and avoids obstacles less well in a familiar place than it does when entirely blind from loss of the peripheral organ of vision. In man extensive destruction of the visual cortex has as one of its symptoms loss of memory of localities, thus, of the paths of a garden, of the position of furniture, and of accustomed objects in the patient's own room. This loss of memory of position does not extend to spatial relations ordinarily appreciated by touch, such as parts of the patient's own person or clothing. There is nothing like this in the symptoms following blindness by loss of the eye itself. Those who lose their sight by disease of the retina retain good memorial pictures of positions and directions appreciated primarily by vision.

Cases of disease are on record in which loss of visual memory has occurred without hemianopia. Visual hallucinations referred to the hemianopic side have been observed. This suggests that the function of visual memory in regard to certain kinds of percepts must belong to localities of cortex different from those pertaining to other visual percepts. The area of cortex characterized by the stripe of Gennari occupies in man, as mentioned, the calcarine and cuneate region. It is surrounded by a cortical field which, though intimately connected with it by manifold conducting fibres, &c., is yet on various grounds distinct from it. This field of cortex surrounding the visuo-sensory of the calcarine-cuneate region is a far newer part of the neopallium than the region it surrounds. Both in the individual (Flechsig) and in the phylum (Bolton, Campbell, Mott) its development occurs far later than that of the visuo-sensory which it surrounds. Flechsig finds that it has no "projection" fibres, that is, that it receives none of the optic radiations from the lower visual centres and gives no centrifugal fibres in the reverse direction. This field encompassing the visuo-sensory region differs from the latter in its microscopic structure by absence of the lower layer of stellate cells and by the presence in it of a third or deep layer of pyramidal cells (Mott). Its fibres are on the average smaller than are those of the visuo-sensory (W. A. Campbell). This zonal field is small in the lower apes, and hardly discoverable in the dog. In the anthropoid apes it is much larger. In man it is relatively much larger still. The impairment of visual memory and visual understanding in regard to direction and locality is said to be observed in man only when the injury of the cortex includes not only the calcarine-cuneate region but a wide area of the occipital lobe. From this it is argued that the zonal field is concerned with memories and recognitions of a kind based on visual perceptions. It has therefore been termed the visuo-psychic area. It is one of Flechsig's "association-areas" of the cortex.

Adjoining the antero-lateral border of the just-described visuo-psychic area lies another region separate from it and yet related to it. This area is even later in its course of development than is the visuo-psychic. It is one of Flechsig's "terminal fields," and its fibres are among the last to ripen in the whole cortex. This terminal field is large in man. It runs forward in the parietal lobe above and in the temporal lobe below. Its wide extent explains, in the opinion of Mott, the displacement of the visuo-sensory field from the outer aspect of the hemisphere in the lower monkeys to the median aspect in man. To this terminal field all the more interest attaches because it includes the angular gyrus, which authorities hold to be concerned with the visual memory of words. Study of diseased conditions of speech has shown that the power to understand written words may be lost or severely impaired although the words may be perfectly distinct to the sight and although the power to understand heard words remains good. This condition is asserted by many physicians to be referable to destruction of part of the angular gyrus. Close beneath the cortex of the angular gyrus runs a large tract of long fibres which pass from the visual cortex (see above) to the auditory cortex (see below) in the superior temporal gyrus and to the lower part of the frontal lobe. This lower part of the frontal lobe is believed - and has long been believed - to be concerned intimately with the production of the movements of speech. A difficulty besetting the investigation of the function of the angular gyrus is the fact that lesion of the cortex there is likely to implicate the underlying tract of fibres in its damage. It cannot be considered to have been as yet

clearly ascertained whether the condition of want of recognition of seen words - " word-blindness " - is due to cortical injury apart from subcortical, to the angular gyrus itself apart from the underlying tract. Word-blindness seems, in the right-handed, to resemble the aphasia believed to be connected with the lower part of the frontal lobe, in that it ensues upon lesions of the left hemisphere, not of the right. In left-handed persons, on the contrary, it seems to attach to the right hemisphere.

Auditory Region of the Cortex. - Besides the two great organs of distance-receptors, namely, the nose and eye, whose cerebral apparatus for sensation has just been mentioned, those of a third great distance-receptor have to be considered. The agents of stimulation of the two former are respectively chemical (olfactory) and radiant (visual); the mode of stimulation of the third is mechanical, and the sensations obtained by it are termed auditory. Their cerebral localization is very imperfectly ascertained. Electric stimuli applied to a part of the uppermost temporal gyrus excites movements of the ears and eyes in the dog. Destruction of the same region when executed on both hemispheres is argued by several observers to impair the sense of hearing. To this region of cortex fibres have been traced from the lower centres connected with the nerve-fibres coming from the cochlea of the ear. From each cochlear nerve a path has been traced which passes to the insulae and the above-mentioned temporal region of cortex of both the cerebral hemispheres. The insula is a deeper-seated area of cortex adjoining the uppermost temporal convolution. To it Flechsig's chronological studies also impute a connexion with the nerves of the ear. Early myelinization of fibres, presence of ascending and descending " projection " tracts to and from lower centres outside the cortex, calibre of fibres, microscopic characters of its cortical cells, all those kinds of indirect items of evidence that obtain for the visual cortex likewise mark out this insular-temporal area as connected fairly directly with a special sense-organ, as in fact a sensory field of the cortex; and the suspicion is that it is auditory. Clinical observation supports the view in a striking way, but one requiring, in the opinion of some, further confirmation. It is widely believed that destruction of the upper and middle part of the uppermost temporal convolution produces " word-deafness," that is, an inability to recognize familiar words when heard, although the words are recognized when seen.

More precise information regarding this auditory region of the cortex has recently been obtained by the experiments of Kalischer. These show that after removal of this region from both sides of the brain in the dog the animal shows great defect in answering to the call of its master. Whereas prior to the operation the animal will prick its ears and attend at once to the lightest call, it requires after the removal of the auditory regions great loudness and insistence of calling to make it attend and react as it did. This is the more striking in view of other experimental results obtained. Kalischer trained a number of his dogs not to take meat offered them except at the sound of a particular note given by an organ pipe or a harmonium. The dogs rapidly learned not to take the food on the sounding of notes of other pitch than the one taught them as the permissive signal. This reaction on the part of the animal was not impaired by the removal of the so-called auditory regions of the cortex. Kalischer suggests that this reaction taught by training is not destroyed by the operation which so greatly impairs the common reaction to the master's call, because the former is a simpler process more allied to reflex action. In it the attention of the dog is already fastened upon the object, namely the food, and the stimulus given by the note excites a reaction which simply allows the act of seizing the food to take place, or on the other hand stops it. In the case of answering the call of the master the stimulus has to excite attention, to produce perception of the locality whence it comes, and to invoke a complicated series of movements of response. He finds that destruction of the posterior colliculi of the mid-brain, which have long been known to be in some way connected with hearing, likewise destroys the response to the call of the master, but did not destroy the trick taught to his dogs of taking meat offered at the sound of a note of one particular pitch but not at notes of other pitch given by the same instrument.

Other Senses and Localization in the Cortex Cerebri. - Turning now to the connexion between the function of the cortex and the senses other than those of the great distance-receptors just dealt with, even less is known. Disturbance and impairment of skin sensations are observable both in experiments on the cerebrum of animals and in cases of cerebral disease in man. But the localization in the cortex of regions specially or mainly concerned with cutaneous sensation has not been made sufficiently clear to warrant statement here. Still less is there satisfactory knowledge

regarding the existence of cortical areas concerned with sensations originated in the alimentary canal. The least equivocal of such evidence regards the sense of taste. There is some slight evidence of a connexion between this sense and a region of the hippocampal gyrus near to but behind that related to smell.

As to the sensations excited by the numerous receptors which lie not in any of the surface membranes of the body but embedded in the masses of the organs and between them, the proprioceptors, buried in muscles, tendons and joints, there is little doubt that these sensations may be disturbed or impaired by injury of the cortex cerebri. They may probably also be excited by cortical stimulation. But evidence of localization of their seat in, and their details of connexion with, the cortex, is at present uncertain. Many authorities consider it probable that sensations of touch and the sensations initiated by the proprioceptors of muscles and joints (the organs of the so-called muscular sense) are specially related to the post-central gyrus and perhaps to the pre-central gyrus also. The clearest items on this point are perhaps the following.

Besides the regions instanced above, in the limbic (olfactory), occipital (visual), and temporal (auditory) lobes, as exhibiting precocity of development, there is a region showing similar precocity in the fronto-parietal portion of the hemisphere. This is the region which in the Primates includes the large central fissure (sometimes called the fissure of Rolando). To it fibres are traced which seem to continue a path of conduction that began with afferent tracts belonging to the spinal cord, and tracts which there is reason to think conduct impulses from the receptororgans of skin and muscles. The part of the cortex immediately behind the central fissure seems to be the main cortical goal for these upward-conducting paths. That post-central strip of cortex would in this view bear to these paths a relation similar to that which the occipital and temporal regions bear to afferent tracts from the retina and the cochlea. There are observations which associate impaired tactual sense and impaired perception of posture and movement of a limb with injury of the central region of the cortex. But there are a number also which show that the motor defect which is a well-ascertained result of injury of the pre-central gyrus is sometimes unaccompanied by any obvious defect either of touch or of muscular sense. It seems then that the motor centres of this region are closely connected with the centres for cutaneous and muscular sense, yet are not so closely interwoven with them that mechanical damage inflicted on the one of necessity heavily damages the other as well. There is evidence that the sensory cortex in this region lies posterior to that which has been conveniently termed the " motor." These latter in the monkey and the man-like apes and man lie in front of the central fissure: the sensory lie probably behind it. A. W. Campbell has found changes in the cortex of the post-central convolution ensuing in the essentially sensory disease, tabes dorsalis, a disease in which degeneration of sensory nerve-fibres of the muscular sense and of the skin senses is prominent. He considers that in man and the man-like apes the part of the postcentral gyrus which lies next to and enters into the central fissure is concerned with simpler sensual recognitions, while the adjoining part of that convolution farther back is a " psychic region " concerned with more complex psychosis connected with the senses of skin and muscle. His subdivision of the post-central gyrus is based on histological differences which he discovers between its anterior and its posterior parts and on the abovedescribed analogous differentiation of a " sensory " from a " psychic " part in the visual region of cortex.

It will be noted that although certain regions of the cortex are found connected closely with certain of the main sense organs, there are important receptive organs which do not appear to have any special region of cortex assigned to their sensual products. Thus, there is the " vestibular labyrinth " of the ear. This great receptive organ, so closely connected in function with the movements and adjustment of the postures of the head and eyes, and indeed of the whole body, is prominent in the coordination necessary for the equilibrium of the body, an essential part of the fundamental acts of progression, standing, &c. Yet neither structural nor functional connexion with any special region of the cortex has been traced as yet for the labyrinthine receptors. Perceptions of the position of the head and of the body are of course part of our habitual and everyday experience. It may perhaps be that these perceptions are almost entirely obtained through sense organs which are not labyrinthine, but visual, muscular, tactual, and so on. The labyrinth may, though it controls and adjusts the muscular activities which maintain the balance of the body, operate reflexly without in its operation exciting of itself sensations. The results of the unconscious reflexes it initiated and guided would be perceptible through other. organs of sense. But against this purely unconscious

functioning of the labyrinth and its nervous apparatus stands the fact that galvanic stimulation of the labyrinth is accompanied by wellknown distinctive sensations - including giddiness, &c. Moreover, the prominent factor in sea-sickness, a disorder richly suffused with sensations, is probably the labyrinth. Yet there is marked absence of evidence of any special and direct connexion between the cortex cerebri and the labyrinth organs.

Also there is curiously little evidence of connexion of the cortex with the nervous paths of conduction concerned with pain. As far as the present writer can find from reference to books and from the clinical experience of others, "pain" is unknown as an aura in cortical epilepsy, or at most is of equivocal occurrence.

The preceding brief exposition of some of the main features of the localization of function in the cortex cerebri, gradually deciphered by patient inquiry, shows that the scheme of partition of function so far perceptible does not follow the quaint lines of analysis of the phrenologists with their supposed mental entities, so-called "faculties." On the contrary it is based, as some of those who early favoured a differential arrangement of function in the cerebrum had surmised, on the separateness of the incoming channels from peripheral organs of sense. These organs fall into groups separate one from another not only by reason of their spatial differentiation at the surface and in the thickness of the body, but also because each group generates sensations which introspection tells us are of a species unbridgeably separate from those generated by the other groups. Between sensations of hearing and sensations of sight there is a dissimilarity across which no intermediate series of sensual phenomena extend. The two species of sensations are wholly disparate. Similarly there is a total and impassable gap between sensations of touch and sensations of sight and sound. In other words the sensations fall into groups which are wholly disparate and are hence termed species. But within each species there exist multifold varieties of the specific sensation, e.g. sensations of red, of yellow, &c. We should expect, therefore, that the conducting paths from the receptive organs which in their function as sense-organs yield wholly disparate sensations would in so far as subserving sensation diverge and pass to separate neural mechanisms. That these sense-organs should in fact be found to possess in the cortex of the cerebrum separate fields for their sensual nervous apparatus is, therefore, in harmony with what would be the a priori supposition.

But, as emphasized at the beginning of this article, the receptive organs belonging to the surfaces and the depths of the body and forming the startingpoints for the whole system of the afferent nerves, have two functions more or less separate. One of these functions is to excite sensations and the other is to excite movements, by reflex action, especially in glands and muscles. In this latter function, namely the reflexifacient, all that the receptive organs effect is effected by means of the efferent nerves. They all have to use the efferent, especially the motor, nerves of the body. So rich is the connexion of the receptive organs with the efferent nerves that it is not improbable that, through the central nervous organ, each receptive organ is connected with every motor nerve of the whole nervous system, - the facts of strychnine poisoning show that if this is not literally true it is at least approximately so. Hence one of the goals to which each afferent fibre from a receptive organ leads is a number of motor nerves. Their conducting paths must, therefore, converge in passing to the starting-points of the motor nerves; because these latter are instruments common to the use of a number of different receptive organs in so far as they excite reflex actions. On the other hand those of their conducting paths which are concerned in the genesis of sensation, instead of converging, diverge, at least as far as the cortex cerebri, or if not divergent, remain separate. These considerations would make it appear likely that the conducting path from each receptive organ divides in the central nervous system into two main lines, one of which goes off to its own particular region of the cortex cerebri whither run conductors only of similar sensual species to itself, while the other main line passes with many others to a great motor station where, as at a telephone exchange, coordinate use of the outgoing lines is assured to them all. Now there is in fact a portion of the cortex in mammals the functions of which are so pre-eminently motor, as judged by our present methods, that it is commonly designated the motor cortex (see fig. 24). This region of the cortex occupies in the Primates, including Man, the pre-central gyrus. Among the items of evidence which reveal its motor capabilities are the following.

The Precentral or Motor Region of the Cortex. - The application to it of electric currents excites movements in the skeletal muscles. The movements occur in the half of the body of the side crossed from that of the hemisphere

excited. The " motor representation," as it is termed, is in the cortex better described as a representation of definite actions than of particular muscles. The actions " represented " in the top part of the gyrus, namely next the great longitudinal fissure, move the leg; those in the lowest part of the gyrus belong to the tongue and mouth. The topical distribution along the length of the gyrus may be described in a general way as following a sequence resembling that of the motor representation in the spinal cord, the top of the gyrus being taken as corresponding with the caudal end of the spinal cord. The sequence as the gyrus is followed downwards runs: perineum, foot, knee, hip, abdomen, chest, shoulder, elbow, wrist, hand, eyelids and ear, nose, mouth and tongue. The nature of the movement is very fairly constant for separate

Anus & vagina. Ankle Toes Hip Knee,. Shoulder Elbow Wrist ,;Chest Eyelid Closure of jaw. Vocal cords. Mastication. Sulcus centralis.

Fig. 24. - Diagram of the Topography of the Main Groups of Foci in the Motor Field of Chimpanzee.

points of this motor cortex as observed both in the same and in similar experiments. Thus flexion of the arm will be excitable from one set of points, and extension of the arm from another set of points; opening of the jaw from one set and closure from another, and so on. These various movements if excited strongly tend to have characters like those of the movements seen in an epileptic convulsion. Strong stimulation excites in fact a convulsion like that of epilepsy, beginning with the movement usual for the point stimulated and spreading so as to assume the proportions of a convulsion affecting the entire skeletal musculature of one half or even of the whole body. The resemblance to an epileptic seizure is the closer because the movement before it subsides becomes clonic (rhythmic) as in epilepsy. The determination of the exact spots of cortex in which are represented the various movements of the body has served a useful practical purpose in indicating the particular places in the cortex which are the seat of disease. These the physician can localize more exactly by reason of this knowledge. Hence the surgeon, if the nature of the disease is such as can be dealt with by surgical means, can without unnecessarily damaging the skull and brain, proceed directly to the point which is the seat of the mischief.

The motor representation of certain parts of the body is much more liberal than is that of others. There is little correspondence between the mere mass of musculature involved and the area of the cortex devoted to its representation. Variety of movement rather than force or energy of movement seems to demand extent of cortex. The cortical area for the thumb is larger than those for the whole abdomen and chest combined. The cortical area for the tongue is larger than that for the neck. Different movements of one and the same part are very unequally represented in the cortex. Thus, flexion of the leg is more extensively represented than is extension, opening of the jaw has a much larger cortical area than has closure of the jaws. It is interesting that certain agents, for instance strychnine, and the poison of the bacilli which cause the disease known as tetanus or lock-jaw, upset this normal topography, and replace in the cortex flexion of the limb by extension of the limb, and opening of the jaw by closure of the jaw. There is, however, no evidence that they do this by changing in any way the cortical mechanisms themselves. It is more likely that their action is confined to the lower centres, bulbar and spinal, upon which the discharge excited from the cortex plays. The change thus induced in the movement excited by the cortex does, however, show that the point of cortex which causes for instance opening of the mouth is connected with the motor nerves to the closing muscles as well as with those of the opening muscles. This is an item of evidence that the " centres " of the cortex are connected with the motor nerves of antagonistic muscles in such a way that when the " centre " excites one set of the muscles to contract, it simultaneously under normal circumstances causes inhibition of the motor neurones of the opposed set of muscles (reciprocal innervation). In the great majority of movements excited from the motor cortex of a single hemisphere of the cerebrum, the movement evoked is confined to one side of the body, namely to that opposite to the hemisphere stimulated. There are, however, important exceptions to this. Thus, adduction of both vocal cords is excited from the cortex of either hemisphere. The movement of closure of the eyelids is usually bilateral, unless the stimulation be very weak; then the movement is of the eyelids of the opposite side only. The same holds true for the movements of the jaw. It, therefore, seems clear that with many movements which are usually bilaterally performed in ordinary life, such as opening of the jaw, blinking, &c., the symmetrical areas of the motor regions of both

hemispheres are simultaneously in action.

In regard to all these movements elicitable by artificial stimuli from the motor cortex it is obvious that were there clearer evidence that the pallial region from which they are elicitable is fairly directly connected with corticopetal paths subserving cutaneous sensation or "muscular sense," the movements might be regarded as falling into the category of higher reflexes connected with the organs of touch, muscular sense, &c., just as the movements of the eyeball excitable from the visual cortex may be regarded as higher reflexes connected with vision. The evidence of the connexion of the reactions of the motor cortex with cutaneous and muscular senses appears, however, scarcely sufficient to countenance at present this otherwise plausible view, which has on general grounds much to commend it.

It is remarkable that movements of the eyeball itself, i.e. apart from movement of the lids, are not in the category of movements elicitable from the precentral gyrus, the "motor" cortex. They are found represented in a region farther forward, namely in front of the precentral gyrus altogether, and occupying a scattered set of points in the direction frontal from the areas for movements of arm and face. This frontal area yields on excitation conjugate movements of both eyeballs extremely like if not exactly similar to those yielded by excitation of the occipital (visual) region of the cortex. It is supposed by some that this frontal area yielding eye-movements has its function in this respect based upon afferent conductors from other parts of the eyeball than the retina, for instance upon kinaesthetic (Bastian) impressions or upon sensual impressions derived from the cornea and the coats of the eyeball including the ciliary and iris muscles. The ocular muscles are certainly a source of centripetal impulses, but their connexion with the cortex is not clear as to either their nature or their seat. The question seems for the present to allow no clearer answer. It is certain, however, that the frontal area of eye movements has corticofugal paths descending from it to the lower motor centres of the eyeballs quite independent of those descending from the occipital (visual) area of eye-movements. Further, it seems clear that in many animals there is another cortical region, a third region, the region which we saw above might be considered auditory, where movements of the eyeball similar to those elicitable in the occipital and frontal cortex can be provoked. A. Tschermak is inclined to give the eyeball movements of the frontal region the significance of reflex movements which carry the visual field in various directions in answer to demands made by sensory data derived from touch, &c., as for instance from the hand. The movements of the eyeballs elicitable from the occipital region of the cortex he regards as probably concerned with directing the gaze toward something seen, for instance, in the peripheral field of vision. The occipital movement would, therefore, be excited through the retina, and would result in bringing the yellow spot region of the retinae of both eyes to bear upon the object. This view has much to justify it. The movements of the eyeballs excited from the cortex of the auditory region would in a similar way be explicable as bringing the gaze to bear upon a direction in which a sound had been located, auditory initiation replacing the visual and tactual of the occipital and the frontal regions respectively.

Turning from these still speculative matters to others less suggestive but of actual ascertainment, we find that the motor nature of the precentral cortex as ascertained by electric stimuli is further certified by the occurrence of disturbance and impairment of motor power and adjustment following destruction of that region of the cortex. The movements which such a part as a limb executes are of course manifold in purpose. The hind limb of a dog is used for standing, for stepping, for scratching, for squatting, and, where a dog, for instance, has been trained to stand or walk on its hind legs alone, for skilled acts requiring a special training for their acquisition. It is found that when the motor area of the brain has been destroyed, the limb is at first paralysed for all these movements, but after a time the limb recovers the ability to execute some of them, though not all. The scratching movement suffers little, and rapid improvement after cerebral injury soon effaces the impairment, at first somewhat pronounced, in the use of the limb for walking, running, &c., and ordinary movements of progression. Even when both hemispheres have been destroyed the dog can still stand and walk and run. Destruction of the motor region of the cortex renders the fore limbs of the dog unable to execute such skilled movements as the steadying of a bone for gnawing or the trained act of offering the paw in answer to the command of the master. Skilled acts of the limb, apart from conjoined movements in which it, together with all the other limbs, takes part, assume of course a larger share of the office of

the limb in the Primates than in the dog; and this is especially true for the fore limb. It is when the fore-foot becomes a hand that opportunity is given for its more skilled individual use and for its training in movements as a tool, or for the handling of tools and weapons. It is these movements which suffer most heavily and for the longest period after injury of the motor region of the cortex. Hence the disablement ensuing upon injury to the cortex would be expected to be most apparent in the Primates; and it is so, and most of all in Man. Further, in Man there ensues a condition called "contracture," which is not so apparent or frequent a result in other animals, - indeed, does not occur at all in other animals except the monkey. In contracture the muscles of the paretic limb are not flaccid, as they are usually in paralysis, but they are tense and the limb is more or less rigidly fixed by them in a certain position, usually one of flexion at elbow and wrist. This condition does not occur at first, but gradually supervenes in the course of a number of weeks. In Man the destruction of the motor area of the cortex cripples the limb even for the part it should play in the combined limb movements of walking, &c., and cripples it to an extent markedly contrasting with the slight disturbances seen in the lower mammals, e.g. the dog.


As regards the recovery of motor power after lesions of the motor cortex, two processes seem at work which are termed respectively *restitution* and *compensation*. By the former is understood the recovery obtained when a part of a "centre" is destroyed, and the rest of the centre, although thrown out of function at first, recovers and supplements the deficiency later. An example of restitution would be the recovery from temporary hemianopia caused by a small injury in one occipital lobe. By compensation is understood the improvement of an impaired nervous function, traceable to other centres different from those destroyed supplying means to compass the reaction originally dependent on the centres subsequently destroyed. Instances of such compensation are the recovery of taxis for equilibrium subsequent to destruction of the labyrinth of the ear, where the recovery is traceable to assistance obtained through the eye. It will be noted that these instances of recovery by restitution and by compensation respectively are taken from cases of injury inflicted on receptive rather than on motor centres. It is doubtful how far they really apply to the undoubted improvement that does within certain limits progress and succeed in partially effacing the paresis immediately consequent on lesions of the motor area. It has to be remembered that in all cases of traumatic injury to the nervous system, especially where the trauma implicates the central nervous organ, the first effects and impairment of function resulting are due to a mixed cause, namely on the one hand the mechanical rupture of conducting paths actually broken by solution of their continuity, and on the other hand the temporary interruption of conducting paths by "shock." Shock effects are not permanent: they pass off. They are supposed to be due to a change at the synapses connecting neurone with neurone in the grey matter. They amount in effect to a long-lasting and gradually subsiding inhibition.

For diseases of the brain see Neuropathology, Insanity, Skull (Surgery), &c. (C. S. S.)

[1] The literature of the pineal region is enormous. Studnicka (in Oppels Vergleichende mikrosk. Anat. Teile 4-5, 1904, 1905) gives 285 references. The present conception of the generalized arrangement is: (a) A single glandular median organ from the fore-brain called the paraphysis. (0) A pouch of the ependymal roof of the ventricle called the dorsal sac. (-y) A right and left epiphysis, one of which may be wholly or partially suppressed. These may change their position to anterior and posterior in some animals.

undefined

Help:Books

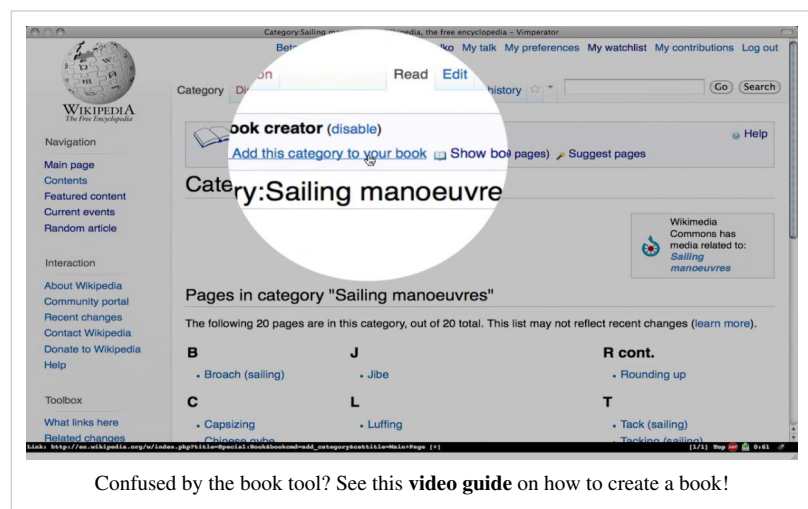
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Books

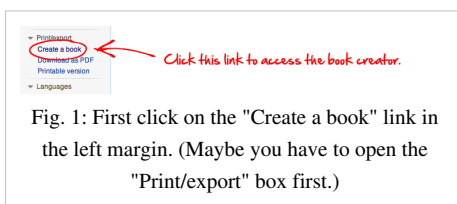
An introduction to creating books and using the book tool on Wikisource.

Step-by-step guide

This page shows you how to create a book from Wikisource articles in four steps. Books can be created in PDF or OpenDocument formats, or ordered for printing on the PediaPress website.



Step 1: Enable the "Book Creator" tool



If you open a category page, the "Add this page to your book" will change to "Add this category to your book". Clicking on "Add this category to your book" will add all articles in that category.

After selecting a few articles, you can click on "Suggest pages" and you will be presented with a list of articles that are related to your selection. This helps you to create a more complete book if you run out of ideas, or just want to make sure that you haven't forgotten anything.

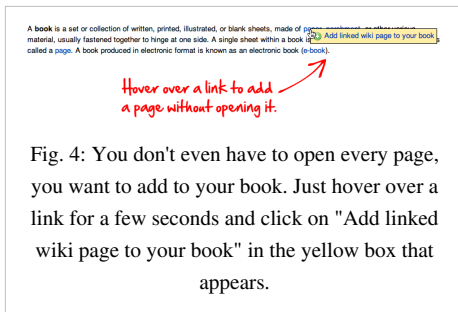


Fig. 4: You don't even have to open every page, you want to add to your book. Just hover over a link for a few seconds and click on "Add linked wiki page to your book" in the yellow box that appears.

Step 3: Review Your Book

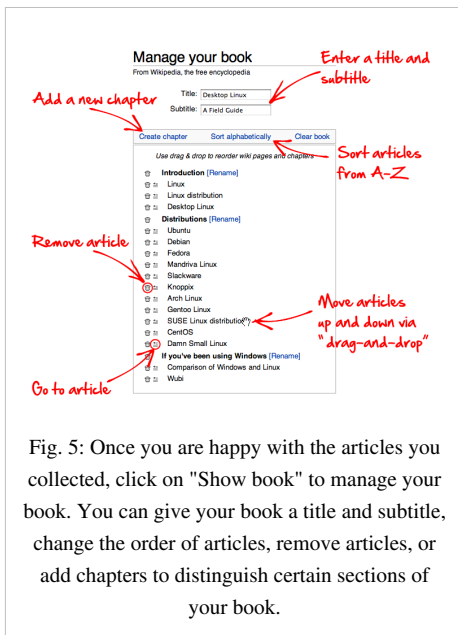


Fig. 5: Once you are happy with the articles you collected, click on "Show book" to manage your book. You can give your book a title and subtitle, change the order of articles, remove articles, or add chapters to distinguish certain sections of your book.

Step 4: Download or order a printed book

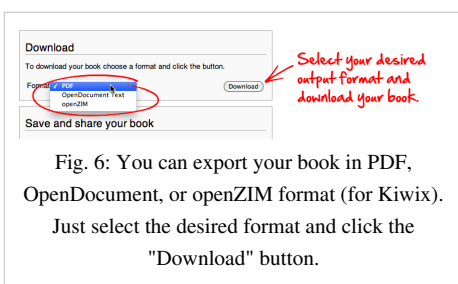


Fig. 6: You can export your book in PDF, OpenDocument, or openZIM format (for Kiwix). Just select the desired format and click the "Download" button.

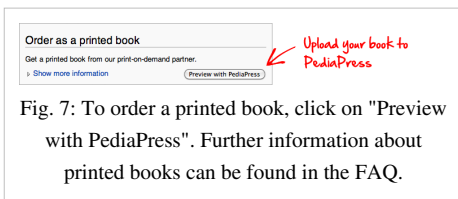


Fig. 7: To order a printed book, click on "Preview with PediaPress". Further information about printed books can be found in the FAQ.

Saving and sharing your book with others

To save your book, you must be a registered Wikisource user (see Why create an account? for a detailed explanation). In addition, your user account must be autoconfirmed. Then, you can save your book on the "Book" page, which can be reached by clicking the "Show book" link in the menu on the left hand side or in the toolbar.

In the "Save and share your book" section you have to choose whether you want to save your book

- in your user page or
- in the "community-maintained" Books namespace.

Finally, you have to provide a title for your book collection and click the "Save book" button.

Printed books from PediaPress



By clicking the "Preview with PediaPress" button, your collection of wiki articles will be uploaded to PediaPress, a service that prints books based on wiki content. Further information about the printed books can be found on the FAQ page, and at Printed books (including cost and format details).

In 2007 the Wikimedia Foundation and PediaPress agreed upon a long-term partnership aimed to improve the availability of Wikisource and other wiki-based project content in the form of high-quality print products or text documents in the OpenDocument format.

Known bugs

~~The problem has been reported and will hopefully be resolved soon.~~
Resolved!! January 12, 2012

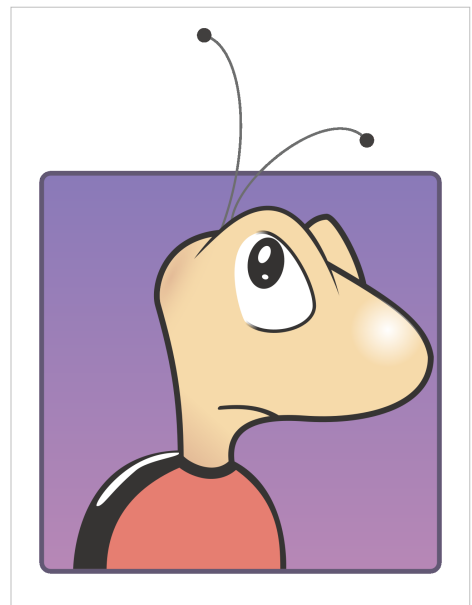
The book creation tool is no longer incompatible with the proofreading tool (Resolved January 12, 2012). Some smaller bugs still exist however. At the moment, Labeled Section Transclusion is not supported by the book tool but widely used on Wikisource. This may cause situations such as chapters overrunning into previous or subsequent chapters of some books.

Further information

- FAQ about the Book tool.
- Help for experts – details about the advanced functions of the Book tool.
- Feedback – for reporting and tracking of bugs.
- Wikis Go Printable – Wikimedia Foundation press release, 13 December 2007.
- Deployment Guide
- Technical documentation of the Collection extension.
- PediaPress books on Wikimedia Commons

References

- [1] http://en.wikisource.org/w/index.php?title=Special:Book&bookcmd=book_creator



Portal:Portals

Portals

Class

n/a

Main/Index

This is the top level portal for Wikisource. It is based on a locally-adapted version of the Library of Congress Classification system. You may browse the portals by the classes below or by jumping to a random portal.

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E	States of the United States
F	American History
G	Geography, Anthropology and Recreation
H	Social Sciences
I	Texts by Country
J	Political Science
K	Law
L	Education
M	Music
N	Fine Arts
P	Language and literature
Q	Science
R	Medicine
S	Agriculture
T	Technology
U	Military Science
V	Naval Science
X	Wikisource
Z	Bibliography and Library Science
Index	

ALTERING GOOD, HAPPINESS AND
MORALITY IN A HUMAN

ALTERING GOOD, HAPPINESS, AND MORALITY IN SOCIETY

Wikisource:Authors-S

←Authors (index) **Authors (S)**

This is an index of authors whose last names begin with the letter "S". Authors whose names appear in bold are very well-known authors or authors with very well-known works. See also the category Authors-S, which is by nature a (usually) more complete but less organized list.

Index of Authors:	A • B • C • D • E • F • G • H • I • J • K • L • M • N • O • P • Q • R • S • T • U • V • W • X • Y • Z
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Sa

- Saalfield, Adah Louise Sutton (1860 – 1935)
 - Sabatini, Rafael (1875 – 1950)
 - Sabine, Edward (1788 – 1883)
 - Sabines, Jaime (1926 – 1999)
 - Sacher-Masoch, Leopold von (1836 – 1895)
 - Sachs, Edwin Otho (1870 - 1919)
 - Sachs, Julius von (1832 – 1897)
 - Sackville, Thomas (1536 – 1608)
 - Sackville, 6th Earl of Dorset, Charles (1638 – 1706)
 - Sackville-West, The Hon Lady Nicolson, Victoria Mary (1892 – 1962)
 - **Sade, Marquis de** (1740 – 1814)
 - Sadler, Michael Thomas (1780 – 1835)
 - Sadler, Sir Michael Ernest (1861 – 1943)
 - Sagan, Carl (1934 – 1996)
 - Saha, Meghnad (1893 – 1956)
 - Saint-Amant, Antoine Girard de (1594 – 1661)
 - Saint-Évremond, Charles de (1610 – 1703)
 - de Saint-Hilaire, Augustin François César Prouvençal (1779 – 1853)
 - Saint-Hilaire, Étienne Geoffery (1772 – 1844)
 - Saint John, Molyneux (1838 - 1904)
 - Saint-Laurent, Louis (1882 – 1973)
 - Saint-Paul, Anthyme (1843 – 1911)
 - Saint-Simon, Louis de Rouvroy, duc de (1675 – 1755)
 - Saintsbury, George (1845 – 1933)
 - **Saki** (1870 – 1916)
 - Saleeby, Caleb Williams (1878 – 1940)
 - Salinger, J. D. (1919 – 2010)
-

- Salisbury, Richard Anthony (1761 – 1829)
 - Lord Salisbury, Robert Gascoyne-Cecil (1830 – 1903)
 - Salisbury, Rollin Daniel (1858 - 1922)
 - Salmond, Stewart Dingwall Fordyce (1838 – 1905)
 - Salomaa, Hiski (1891 – 1947)
 - Salt, Henry (1780 – 1827)
 - Salt, Henry Shakespear Stephens (1851 – 1939)
 - Salter, Samuel James Augustus (1825 – 1897)
 - Salter, William Mackintire (1853 – 1931)
 - Saltus, Adgar Everston (1858 – 1921)
 - Saltykov-Shchedrin, Mikhail (1826 – 1889)
 - Salvioni, Carlo (1858 - 1920)
 - Sampson, John (1862 – 1931)
 - Sampson, Ralph Allen (1866 - 1939)
 - Sampson, William Thomas (1840 - 1902)
 - San Gimignano, Folgore da (1278? – 1330?)
 - Sanborn, Franklin Benjamin (1831 – 1917)
 - Sanborn, Kate(1839 – 1917)
 - Sand, George (1806 – 1874)
 - Sandars, Mary Frances (1864 – 1934)
 - Sanday, William (1843 – 1920)
 - **Sandburg, Carl** (1878 – 1967)
 - Sanders, Francis (1846 – 1912)
 - Sanders, Lloyd Charles (1857 – 1927)
 - Sandys, John Edwin (1844-1922)
 - Sandys, William B. (1792 – 1874)
 - Sanford, Edward Terry (1865 – 1930)
 - Sanford, William Eli (1838 – 1899)
 - Sanger, Larry (b. 1968)
 - Sanguinetti, Gianfranco (–)
 - Sanjinés, José Ignacio de (1786 – 1864)
 - Sanson, Charles-Henri (1739–1806)
 - Santayana, George (1863 – 1952)
 - Sapir, Edward (1884 – 1939)
 - de Saporta, Antoine (1855 – 1914)
 - de Saporta, Gaston (1823 – 1895)
 - Saranuprapan, Luang (1896 – 1954)
 - Sargent, Arthur John (1871–1947)
 - Sargent, Epes (1813 – 1880)
 - Sargent, Frederick Le Roy (1863 - 1928)
 - Saro-Wiwa, Ken (1941 – 1995)
 - Sassoon, Siegfried (1886 – 1967)
 - Satie, Erik (1866 – 1925)
 - Satoh, Henry (1857 – 1934)
 - Satow, Ernest Mason (1843 – 1929)
 - Saunders, George (1859 – 1922)
 - Saunders, Prince (1775 – 1839)
-

- Saunders, Thomas Bailey (1860 – 1928)
- de Saussure, Horace-Bénédict (1740 – 1799)
- Sauvage, George Michael Julius Louis (1873 – 1951)
- Sauvage, Henri Émile (1842 – 1917)
- Savonarola, Girolamo (1452 – 1498)
- Säve-Söderbergh, Gunnar (1910 – 1948)
- Sawyer, Winona Branch (1847 - 1938)
- Saxe, John Godfrey (1816 – 1887)
- Sayce, Archibald
- Sayle, Charles Edward (1864 – 1924)

Sc

- Scalia, Antonin (b. 1936)
 - Scattergood, Thomas (1826 – 1900)
 - Schaeffer, Nathan Christ (1849 – 1919)
 - Schaeffer, Pierre (1910 – 1995)
 - Schaff, Philip (1819 – 1893)
 - Schauffler, Robert Haven (1879 – 1964)
 - Scheer, Reinhard (1863 – 1928)
 - Schellen, Heinrich (1818 – 1884)
 - Scherren, Henry (1842 - 1911)
 - Scheuchzer, Johann Jakob (1672 – 1733)
 - Schiavonetti, Luigi (1765 – 1810)
 - Schidrowitz, Philip (1872 – 1960)
 - Schierbrand, Wolf von (1851 – 1920)
 - Schiller, F. C. S. (1864 - 1937)
 - **Schiller, Friedrich von** (1759 – 1805)
 - Schkuhr, Christian (1741 – 1811)
 - Schlesinger, Kathleen (1862 – 1953)
 - Schley, Winfield Scott (1839 – 1911)
 - Schlich, Wilhelm (1840 - 1925)
 - Schliemann, Johann Ludwig Heinrich Julius (1822 – 1890)
 - Schloss, David Frederick (1850 - 1912)
 - Schmidt, Eduard Oscar (1823 – 1886)
 - Schmidt, Friedrich (1832 – 1908)
 - Schmidt, Nathaniel (1862 – 1939)
 - Schmiedel, Paul Wilhelm (1851 – 1935)
 - Schmitz, Leonhard (1807 – 1890)
 - Schneider, Aime (1870 – 1879)
 - Schneider, Elias (1820 – 1883)
 - Schoetensack, Otto (1850 – 1912)
 - Scholasticus, Evagrius (536/537 – after 594)
 - Scholes, Percy Alfred (1877 – 1958)
 - Scholz, Wilhelm von (1874 – 1969)
 - Schopenhauer, Arthur (1788 – 1860)
 - Schreiber, August (1839 – 1903)
 - Schroeder, Seaton (1849 – 1922)
-

- Schucman, Helen (1909 – 1981)
 - Schulthess, Rudolph (1802 – 1832)
 - Schumacher, Hermann A. (1868 – 1952)
 - Schumacher, Paul (1848 – 1891)
 - Schürer, Emil (1844 - 1910)
 - Schurz, Carl (1829 – 1906)
 - Schuster, Franz Arthur Friedrich (1851 – 1934)
 - Schützenberger, P. (1829 – 1897)
 - Schuyler, George (1811 – 1890)
 - Schwab, John Christopher (1865 - 1915)
 - Schwally, Friedrich (1863 - 1919)
 - Schwartz, Jean (1878 – 1956)
 - Schwarzenegger, Arnold A. (b. 1947)
 - Schweinitz, Lewis David von (1780 - 1834)
 - Schweitzer, Albert (1875 – 1965)
 - Sclater, Philip (1829–1913)
 - Scoggin, Gilbert Campbell (d. 1945)
 - Scott, Arthur P. (1884 – 1961)
 - Scott, Austin (1848 – 1922)
 - Scott, Charles Anderson (1859 - 1941)
 - Scott, Dukinfield Henry (1854 – 1934)
 - Scott, Edward John Long (1840 – 1918)
 - Scott, Sir Ernest (1868 – 1939)
 - Scott, Harold Spencer (? - ?)
 - Scott, Hugh Stowell (1862 – 1903)
 - Scott, James (1885 – 1938)
 - Scott, James George (1851 - 1935)
 - Scott, James Moffat (1848 – 1910)
 - Scott, John (1841 - 1904)
 - Scott, Leonard (1810 – 1895)
 - Scott, Sir Leslie Frederic (1859-1950)
 - Scott, Reginald Thomas Maitland (1882 – 1966)
 - Scott, Robert (1757 – 1808)
 - Scott, Robert (1811 – 1887)
 - **Scott, Walter** (1771 – 1832)
 - Scott, William Bell (1811 – 1890)
 - Scott, William Berryman (1858 – 1947)
 - Scott Ferguson, William (1875 – 1954)
 - Scott-Moncrieff, Charles Kenneth (1889 – 1930)
 - Scowcroft, Brent (1925—)
 - Scribner, Gilbert Hilton (1831 – 1910)
 - Scriven, Joseph (1819 – 1886)
 - Scroggs, William Oscar (1879 - 1957)
 - Scrope, George Julius Poulett (1797 – 1876)
 - Scudder, Horace Elisha (1838 – 1902)
-

Se

- Seabury, Samuel (1729 – 1796)
 - Seaman, Sir Owen (1861 – 1936)
 - Searle, Arthur (1837 – 1920)
 - Searle, George Frederick Charles (1864 – 1954)
 - Sears, Edmund Hamilton (1810 – 1876)
 - Seccombe, Thomas (1866-1923)
 - Sedding, J. D. (1838 – 1891)
 - Seddon, James (1815 – 1880)
 - Sedgefield, Walter John (1866 – 1945)
 - Sedgwick, Adam (1785 – 1873)
 - Sedgwick, Adam (1854 – 1913)
 - Sedgwick, Catharine Maria (1789 – 1867)
 - Sedgwick, Henry D. (1861 – 1957)
 - Sedgwick, William Fellows (1872 – 1949)
 - Sedgwick, William Thompson (1855 – 1921)
 - Sée, Henri (1864 - 1936)
 - Seebeck, Thomas Johann (1770 – 1831)
 - Seebohm, Frederic (1833 – 1912)
 - Seeger, Alan (1888 – 1916)
 - Seeley, Sir John Robert (1834 – 1895)
 - Séguin, Édouard (1812 – 1880)
 - Ségur, Sophie Rostopchine, comtesse de (1799 – 1874)
 - Selassie, Haile (1892 – 1975)
 - Sellar, William Young (1825 – 1890)
 - Sellars, Roy Wood (1880 – 1973)
 - Sellers, George Escol (1808 – 1899)
 - Selous, Edmund (1857 – 1934)
 - Selous, Frederick Courteney (1851 – 1917)
 - Seltzer, Thomas (1875 – 1943)
 - Selwyn, Tim (b. 1974)
 - Sen, Keshub Chunder (1838 – 1884)
 - Seneca (4 – 65)
 - Seong Hon (1535 – 1598)
 - Sergeant, Lewis (1841 – 1902)
 - **Service, Robert W.** (1874 – 1958)
 - Serviss, Garrett Putnam (1851 – 1929)
 - Seth-Smith, David (1875 – 1963)
 - Seton-Karr, Henry (1853 - 1914)
 - Seton-Watson, Robert William (1879 – 1951)
 - Seuss Geisel, Dr. Theodor (1904 – 1991)
 - Marquise de Sévigné, Marie de Rabutin-Chantal (1626 – 1696)
 - Sewall, Samuel (1652 – 1730)
 - Anna Seward (1747 – 1809)
 - Seward, Albert Charles (1863 – 1941)
 - Seward, Mary Coggeshall (1839 – 1919)
 - Seward, William Henry (1801 – 1872)
-

- Sewell, Anna (1820 – 1878)
- Sextus Empiricus (c. 200)
- Seymour, Horatio (1810 – 1886)
- Seymour, Thomas Day (1848 - 1907)
- Seymour, Webb John (1777 – 1819)

Sé

- de Sénancour, Étienne-Jean-Baptiste-Pierre-Ignace Pivert (1770–1846)

Sh

- Shackleton, Sir Ernest Henry (1874 – 1922)
 - Shadwell, Arthur (1854-1936)
 - Shadwell, Lionel Lancelot (1845 - 1925)
 - Shahan, Thomas Joseph (1857 – 1932)
 - Shah Abdul Latif Bhitai (1689 – 1752)
 - **Shakespeare, William** (1564 – 1616)
 - Shakespeare, William G.
 - Shakir, Mohammed Habib (1866 – 1939)
 - Shaler, Nathaniel Southgate (1841 – 1906)
 - Rudrapatnam Shamasastri (1868 – 1944)
 - Shankara, Adi (8th c. CE)
 - Shanks, Lewis Piaget (1878 – 1935)
 - Shann, Edward (1884 – 1935)
 - Sharp, Archibald (1862 – 1934)
 - Sharp, Cecil James (1859 – 1924)
 - Sharp, David (1840 - 1922)
 - Sharp, Robert Farquharson (1864 – 1945)
 - Sharp, William (1855 - 1905)
 - Sharpe, Richard Bowdler (1847 – 1909)
 - Sharpey, William (1802 – 1880)
 - Shats, Avner (1959 –)
 - Shaw, Bernard (b. 1940)
 - **Shaw, George Bernard** (1856 – 1950)
 - Shaw, George Kearsley (1779 – 1833)
 - Shaw, Thomas (1850 - 1937)
 - Shaw, Wilfred Byron (1881 – 1959)
 - Shaw, William Arthur (1865 – 1943)
 - Shaw, William Napier (1854 – 1945)
 - Shaw-Stewart, Patrick (d. 1917)
 - Shazar, Zalman (1889 – 1974)
 - Shearman, Thomas Gaskell (1834 - 1900)
 - Sheehan, Daniel Desmond (1873 – 1948)
 - Shehyn, Joseph (1829 – 1918)
 - Sheldon, Charles Monroe (1857 – 1946)
 - Shellabarger, Samuel (1888–1954)
 - Shelley *née* Godwin, Mary Wollstonecraft (1797 – 1851)
-

- **Shelley, Percy Bysshe** (1792 – 1822)
- Shepard, Edward Morse (1850 – 1911)
- Shepherd, Francis John (1851 – 1929)
- Shepherd, Richard Herne (1842 – 1895)
- Sheppard, Henry Fleetwood (1824 – 1901)
- Sheppard, William Fleetwood (1863–1936)
- Sherer, John Walter (1823 – 1911)
- **Sheridan, Richard Brinsley** (1751 – 1816)
- Sheringham, Hugh (1876 - 1930)
- Sherman, Charles Colebrook (1860 – 1927)
- Sherman, John (1823 – 1900)
- Sherman, Lucius Adelno (1847 – 1933)
- Sherman, Stuart P. (1881 – 1926)
- Sherrington, Charles Scott (1857-1952)
- Sherwin, William F. (1826 – 1888)
- Sherzer, William Hittell (1860–1932)
- Shiel, Matthew (1865 – 1947)
- Shimmin, Thomas (1800 – 1879)
- Shin, Chaeho (1880 – 1936)
- Shipley, Arthur Everett (1861 – 1927)
- Shipman, Andrew Jackson (1857 – 1915)
- Shin Suk-ju (1417 - 1475)
- Shipton, Anna (1815 - 1901)
- Shipton, Mother (1488 – 1651)
- Shiras, Jr., George (1832 – 1924)
- Shirley, James (1596 – 1666)
- Shoberl, Frederic (1775 – 1853)
- Shorey, Paul (1857 – 1934)
- Short, John Thomas (1850 – 1883)
- Shorter, Clement King (1857-1926)
- Shorthouse, Joseph Henry (1834 – 1903)
- Shotwell, James Thomson (1874-1965)
- Showerman, Grant (1870 – 1935)
- Shuckburgh, Evelyn Shirley (1843 – 1906)
- Shufeldt, Robert Wilson (1850 – 1934)
- Shuler, Ellis William (1881 – 1955)

Si

- Sibree, James (1836 – 1929)
 - Sibthorp, John (1758 – 1796)
 - Sidgwick, Arthur (1840 – 1920)
 - Sidgwick, Eleanor Mildred (1845 - 1936)
 - Sidgwick, Frank (1879–1939)
 - Sidgwick, Henry (1838 – 1900)
 - Sidis, Boris (1867 – 1923)
 - Sidney, Sir Philip (1554 – 1586)
 - Siebenhaar, Willem (1863 – 1936)
-

- Siegel, Eli (1902 – 1978)
 - Siegfried, Andre (1875 – 1959)
 - Siemens, Carl William (1823 – 1883)
 - Sievers, Eduard (1850 - 1932)
 - Sigourney, Lydia (1791 – 1865)
 - Sigwart, Christoph von (1830 – 1904)
 - Sikes, Edward Ernest (1867 - 1940)
 - Silbertstein, Ludwik (1872 – 1948)
 - Sills, Kenneth Charles Morton (1879 – 1954)
 - Silva, José Asunción (1865 – 1896)
 - Silvers, Louis (1889 – 1954)
 - Sim, Dave (1956 –)
 - Sime, James (1843 – 1895)
 - Simkins, William Stewart (1842 – 1929)
 - Simmonds, Peter Lund (1814 – 1897)
 - Simms, William Gilmore (1806 – 1870)
 - Simon, Leon (1881 – 1965)
 - Simonds, Guy (1903 – 1974)
 - Simons, Menno (1496 – 1561)
 - Simpson, Alexander Russell (1835 - 1916)
 - Simpson, Evelyn Blantyre (1856 – 1920)
 - Simpson, James Gilliland (1865 - 1948)
 - Simpson, Sir James Young (1811 – 1870)
 - Simpson, Thomas (1808 – 1840)
 - Sims, John (1749 – 1831)
 - Sinclair, Alistair, J. (? –)
 - **Sinclair, Upton** (1878 – 1968)
 - Sinding, Otto (1842 – 1909)
 - Singer, Margaret Thaler (1921 – 2003)
 - Singh, Bhagat (1907 – 1931)
 - Sinker, Robert (1869 – 1941)
 - Sinnett, Alfred Percy (1840 – 1921)
 - Singleton, Esther (1865 – 1930)
 - Sirhan, Sirhan (b. 1944)
 - Sissle, Noble (1889 – 1975)
 - Sitter, Willem de (1872 – 1934)
 - Sitwell, Edith (1887 – 1964)
 - Sitwell, George Reresby (1860 – 1943)
 - Sixtus V, Pope (1521 – 1590)
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Sk

- Skeat, Walter William (1835 – 1912)
- Skelton, John (1460 – 1529)
- Skene, William Forbes (1809 – 1892)
- Skey, Joseph (1779 – 1833)
- Skinner, Aaron Nichols (1845 – 1918)
- Skinner, Carlton (1913 – 2004)
- Skirving, Adam (1719 – 1803)
- Skrine, John Huntley (1848–1923)
- Skottowe, Britiffe Constable (1857 – 1925)

Sl

- Sladen, Douglas Brooke Wheelton (1856 – 1947)
- Slater, Francis Carey (1876 – 1958)
- Slaveikov, Petko Rachov (1827 – 1895)
- Slingluff, Fielder Cross (1842 – 1918)
- Sloan, William (1867 – 1928)
- Sloane, Sir Hans (1660 – 1753)
- Sloane, T. O'Connor (1851 – ?)
- Sloane, William Milligan (1850 – 1928)
- Slocum, Joshua (1844 – 1909)
- Slosson, Edwin Emery (1865 – 1929)

Sm

- Smart, Christopher (1722 – 1771)
 - Smedes, Susan Dabney (1840 – 1913)
 - Smellie, William (1740 – 1795)
 - Smetham, James (1821 – 1889)
 - Smiles, Samuel (1812 – 1904)
 - Smillie, Thomas William (1843–1917)
 - **Smith, Adam** (1723 – 1790)
 - Smith, Alyssa Whitall Pearsall (1867–1951)
 - Smith, Arthur (1870 – 1929)
 - Smith, Arthur Hamilton (1860 - 1941)
 - Smith, Benjamin Eli (1857 – 1913)
 - Smith, Cecil Harcourt (1859 – 1944)
 - Smith, Cicely Fox (1882 – 1954)
 - Smith, Charles Alphonso (1864 – 1924)
 - Smith, Charles Emory (1842 – 1908)
 - Smith, Charlotte (1749 – 1806)
 - Smith, Charlotte Fell (1851 – 1937)
 - Smith, Charlotte Turner (1749 – 1806)
 - Smith, Clark Ashton (1893 – 1961)
 - Smith, Clifford P.
 - Smith, Edgar Fahs (1854 – 1928)
 - Smith, Edward (1839 – 1919)
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- Smith, Edward Elmer (1890 – 1965)
 - Smith, Edward Shrapnell (1875 - 1952)
 - Smith, Elizabeth Oakes (Prince) (1806 – 1893)
 - Smith, Ethan (1762 – 1849)
 - Smith, Francis Hopkinson (1838 – 1915)
 - Smith, George A. (1817 – 1875)
 - Smith, George Barnett (1841 – 1909)
 - Smith, George Gregory (1865 – 1932)
 - Smith, Goldwin (1823 – 1910)
 - Smith, Harry Bache (1860 – 1936)
 - Smith, Henry A. (1830 – 1915)
 - Smith, Henry Augustus Middleton (1853 - 1924)
 - Smith, Henry Preserved (1847 – 1927)
 - Smith, Herbert Greenhough (1855 – 1935)
 - Smith, Horace (1779 – 1849)
 - Smith, Huntington (1857 – 1926)
 - Smith, James Edward (1759 – 1828)
 - Smith, James McCune (1813 – 1865)
 - Smith, James Power (1837 – 1923)
 - Smith, Jessie Willcox (1863 – 1935)
 - Smith, John (? - ?)
 - Smith, John Alexander (1863 – 1939)
 - Smith, John Frederick
 - Smith, John Thomas (1766 – 1833)
 - **Smith Jr., Joseph** (1805 – 1844)
 - Smith, Joseph Patterson (1856 – 1898)
 - Smith, Langdon (1858 – 1908)
 - Smith, Lucy Toulmin (1838 – 1911)
 - Smith, Nora Archibald (1859 – 1934)
 - Smith, Norman Kemp (1872 – 1958)
 - Smith, Philip (1817 – 1885)
 - Smith, Preserved (1880 – 1941)
 - Smith, Raymond B. (1867 – 1939)
 - Smith, Reginald John (1857 – 1916)
 - Smith, Robert Bache (1875 – 1951)
 - Smith, Robert Angus (1817 – 1884)
 - Smith, Samuel Francis (1808 – 1895)
 - Smith, Seba (1792 – 1868)
 - Smith, Sydney (1771 – 1845)
 - Smith, Sydney Fenn (1843 – 1922)
 - Smith, Thomas (1817 – 1906)
 - Smith, Thorne (1892 – 1934)
 - Smith, W. Browning
 - Smith Jr., W. Dexter (1842 - 1909)
 - Smith, Walter George (1854 – 1924)
 - Smith, Wilford H.
 - Smith, Sir William (1813 – 1893)
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- Smith, William (1816-1896)
- Smith, William Benjamin (1850 – 1934)
- Smith, William Charles (1849 - 1915)
- Smith, William Henry (1833 - 1896)
- Smith, William Robertson (1846 – 1894)
- Smith, William Roy (1876 - 1938)
- Smithells, Arthur (1860 - 1939)
- Smollett, Tobias George (1721 – 1771)
- Smyth, Charles Piazzi (1819 – 1900)
- Smythe, Lewis S.C. (1901-)
- Smythers, Ruth

Sn

- Snagge, Thomas William (1837 – 1914)
- Snell, Frederick John (1862 - 1935)
- Snodgrass, Robert Evans (1875 – 1962)
- Snow, Eliza Roxcy (1804 – 1887)
- Snow, Erastus (1818 – 1888)
- Snow, Freeman (1841 – 1894)
- Snow, Lorenzo (1814 – 1901)
- Snowden, Clinton A. (1847 – 1922)
- Snouck Hurgronje, Christiaan (1857 – 1936)
- Snyder, Gary (b. 1930)
- Snyder, Ted (1881 – 1965)

So

- The Socialist Party of Great Britain (1904 –)
 - Socin, Albrecht (1844 - 1899)
 - Socrates (c. 469 BCE–399 BCE)
 - Sōin, Nishiyama (1605 – 1682)
 - Solander, Daniel Carlsson (1733 – 1782)
 - Solomon, Gerald Brooks Hunt (1930 – 2001)
 - Somers, A. N. (? - ?)
 - Somers, Robert (1822 - 1891)
 - Somerville, Alexander (1811 – 1885)
 - Song Ik-phil (1534 - 1599)
 - Song Jun-gil (1606 - 1672)
 - Song Siyeol (1607 - 1689)
 - Sonnenschein, Edward Adolf (1851 - 1929)
 - Soong, May-ling (1897 – 2003)
 - Sophocles (496 BC – 406 BC)
 - Sorel, Georges (1847 – 1922)
 - Sorley, Charles (1895 – 1915)
 - Sorley, William Ritchie (1855 - 1935)
 - Sortais, Gaston (1852 – 1926)
 - Sousa, Cruz e (1861 – 1898)
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- Sosei, Monk (816 – 910)
- Soulsby, Basil Harrington (1864 – 1933)
- Sousa, John Philip (1854 – 1932)
- Souter, Alexander (1873 – 1949)
- Souter, David (b. 1939)
- South, Richard (1846 – 1932)
- Southey, Robert (1774 – 1843)
- Southward, John (1840 - 1902)
- Southwell, Charles (1814 – 1860)
- Southwell, Robert (c. 1561 – 1595)
- Souvay, Charles Léon (1870 – 1939)
- Souvestre, Émile (1806 – 1854)
- Sowerby, James (1757 – 1822)
- Sozomen, Salminius Hermias (400 – 450)

Sp

- Spahn, Martin (1875 – 1945)
 - Spalding, Douglas Alexander (1841 – 1877)
 - Spalding, Henry Harmon (1803 – 1874)
 - Spalding, William (1809 - 1859)
 - Speed, Lancelot (1860 – 1931)
 - Spelman, Sir Henry (1564 – 1641)
 - Sp, Anna Garlin (1851 – 1931)
 - **Spencer, Herbert** (1820–1903)
 - Spencer, Leonard James (1870 – 1959)
 - Spengler, Oswald (1880 – 1936)
 - **Spenser, Edmund** (c. 1552 – 1599)
 - Spielmann, Marion Harry Alexander (1858 – 1948)
 - Spiers, Richard Phené (1838 – 1916)
 - Spies, August Vincent Theodore (1855 – 1887)
 - **Spinoza, Benedictus de** (1632 – 1677)
 - Spitzka, Edward Anthony (1876 - 1922)
 - Spooner, Henry Maxwell (1847 – 1929)
 - Spooner, Lysander (1807 – 1887)
 - Spottiswoode, William (1825 – 1883)
 - Sprague, Charles (1791 – 1875)
 - Sprague, Charles Ezra (1842 – 1912)
 - Sprat, Thomas (1635 - 1713)
 - Spring-Rice, Stephen Edward (1856 - 1902)
 - Sprott, George Washington (1829 – 1909)
 - Spurgeon, Charles (1834 – 1892)
 - **Spyri, Johanna** (1827 – 1901)
-

Sq

- Squire, James (1754 – 1822)
- Squire, Sir John Collings (1884 – 1958)
- Squire, William Barclay (1855 – 1927)

Sr

- Srirangam Srinivasarao (1910 - 1983)

St

- Stables, William Gordon (1837 - 1910)
 - Stagnelius, Erik Johan (1793 – 1823)
 - Stahl, Henri (1877 – 1942)
 - Stahlecker, Franz (1900 – 1942)
 - Stahr, Adolf (1805 – 1876)
 - Stalin, Joseph (1878 – 1953)
 - Stallo, John Bernhard (1823 – 1900)
 - Stalte, Korli (1870 – 1947)
 - Stanfield, John (1868 – 1934)
 - Stanley, Arthur Penrhyn (1815 – 1881)
 - Stanley, Edward, Bishop of Norwich (1779 – 1849)
 - Stanley, Edward Smith-, 14th Earl of Derby (1799 – 1869)
 - Stanley, Henry, 3rd Baron Stanley of Alderley (1827 – 1903)
 - Stanley, Edward 15th Earl of Derby (1826 – 1893)
 - Stanley, Owen (1811 – 1850)
 - Stanoyevich, Milivoy Stoyan (b. 1882)
 - Stanton, Elizabeth Cady (1815 – 1902)
 - Stanton, Henry (1805 – 1887)
 - Stanton, Vincent Henry (1846 - 1924)
 - Stanyon, Ellis (1870 – 1951)
 - Starbuck, Edwin Diller (1866–1947)
 - Starr, Frederick (1858 – 1933)
 - Starr, Moses Allen (1854 – 1932)
 - Start, Edwin A. (c. 1900)
 - Statham, Henry Heathcote (1839 - 1924)
 - Stauffer, Vernon (1875 – 1925)
 - Stead, William Thomas (1849 – 1912)
 - Stebbing, Thomas Roscoe Rede (1835 - 1926)
 - Stedman, Edmund Clarence (1833 – 1908)
 - Steed, Henry Wickham (1871 – 1956)
 - Steele, Sir Richard (1672 – 1729)
 - Steele, Robert (1860 – 1944)
 - Steen, Jan Havickszoon (1626–1679)
 - Steffens, Joseph Lincoln (1846 – 1936)
 - **Stein, Gertrude** (1874 – 1946)
 - Stein, Robert (1857 – 1917)
 - Steinbeck, John (1902 – 1968)
-

- Steiner, Rudolf (1861 – 1925)
 - Steinhauer, Henry (11782 – 1818)
 - Steinitz, Wilhelm (1836 – 1900)
 - Stendhal (1783 – 1842)
 - Stephen, Caroline Emilia (1834 – 1909)
 - Stephen, Herbert (1857 – 1932)
 - Stephen, Sir James (1789 – 1859)
 - Stephen, Julia Prinsep (1846 – 1895)
 - Stephen, Leslie (1832 – 1904)
 - Stephens, Alexander (1812 – 1883)
 - Stephens, Ann Sophia (1810 – 1886)
 - Stephens, Frederic George (1828 – 1907)
 - Stephens, Henry Morse (1857 – 1919)
 - Stephens, James Brunton (1835 – 1902)
 - Stephens, James Francis (1792 – 1852)
 - Stephens, John Lloyd (1805-1852)
 - Stephens, Percy Somers Tyringham (1860 - 1934)
 - Stephens, Sophia Charlotte Winifred (1870 – 1944)
 - Stephens, William Richard Wood (1839 – 1902)
 - Stephenson, Henry Thew (1870 – 1957)
 - Sterndale-Bennett, James Robert (1847 – 1928)
 - Sterne, Carus (1839 – 1903)
 - Sterne, Laurence (1713 – 1768)
 - Sterrett, Virginia Frances (1900 – 1931)
 - Steuben, Friedrich Wilhelm von (1730 – 1794)
 - Stevens, Bertram William Mathyson Francis (1872–1922)
 - Stevens, Henry (1819 – 1885)
 - Stevens, John Austin (Jr.) (1827 – 1910)
 - Stevens, John Paul (b. 1920)
 - Stevens, Wallace (1879 – 1955)
 - Stevenson, Adlai (1900 - 1965)
 - Stevenson, David Alan (1854 – 1938)
 - Stevenson, John Horne (1855 – 1939)
 - Stevenson, Morley (1851–1930)
 - Stevenson, Robert Alan Mowbray (1847–1900)
 - **Stevenson, Robert Louis** (1850 – 1894)
 - Stevenson, Sarah Ann Hackett (1849 – 1909)
 - Stevenson, Thomas (1838 - 1908)
 - Stewart, Balfour (1828 – 1887)
 - Stewart, Dugald (1753 – 1828)
 - Stewart, Dugald (1862 – 1932)
 - Stewart, Potter (1915 – 1985)
 - Stiles, Robert (1836 – 1905)
 - Stillman, John Maxson (1852 – 1923)
 - Stillman, William James (1828 – 1901)
 - Stimson, Frederic Jesup (1855 – 1943)
 - Stirling, Sir James (1791 – 1865)
-

- Stirling, James Hutchison (1820 – 1909)
 - Stirner, Max (1806 – 1856)
 - Stock, Eugene (1836 - 1928)
 - Stock, St. George (1850 - ?)
 - Stockdale, John (1750 – 1814)
 - Stockley, Ernest Norman (1872 – 1946)
 - Stockman, Ralph (1861-1946)
 - Stockton, Frank R. (1834 – 1902)
 - Stodart-Walker, Archibald (1869 – 1934)
 - Stoddard, Elizabeth (1823 – 1902)
 - Stoddard, John Tappan (1852 – 1919)
 - Stoddard, Lothrop (1883 – 1950)
 - Stoddard, Richard Henry (1825 – 1903)
 - **Stoker, Bram** (1847 – 1912)
 - Stokes, Anson Phelps (1874 – 1958)
 - Stokes, 1st Baronet, Sir George Gabriel (1819 – 1903)
 - Stokes, John Lort (1812 – 188
 - Stokes, Whitley (1830 – 1909)
 - Stone, Harlan Fiske (1872 – 1946)
 - Stone, Henry (1830 – 1896)
 - Stone, Samuel John (1839 - 1900)
 - Stone, William Leete (1835 – 1908)
 - Stoney, George Johnstone (1826 – 1911)
 - Stoney, Henry Butler (1816 – 1894)
 - Stopes, Charlotte Carmichael (1841 – 1929)
 - Stopes, Marie Carmichael (1880 – 1958)
 - Storey, Moorfield (1845 – 1929)
 - Storr, Francis (1839 – 1919)
 - Story, Alfred Thomas (1842 – 1934)
 - Story, Joseph (1779 – 1845)
 - Story, William Edward (1850 – 1930)
 - Størmer, Leif (1905–1979)
 - Stothard, Thomas (1755 – 1834)
 - Stout, George Frederick (1860 – 1944)
 - Stout, Rex Todhunter (1886 – 1975)
 - Stowe, Charles Edward (1850 – 1934)
 - **Stowe, Harriet Beecher** (1811 – 1896)
 - Strachan, John (1862 – 1907)
 - Strachey, Giles Lytton (1880 – 1932)
 - Strachey, Richard (1817 - 1908)
 - Strahan, Samuel Alexander Kenny (?–1902)
 - Strange, Edward Fairbrother (1862 – 1929)
 - Stratemeyer, Edward (1862 – 1930)
 - Stratton-Porter, Gene (1863 – 1924)
 - Strausberger, M. R.
 - Strauss, David Friedrich (1808 – 1874)
 - Strayer, Joseph (1904 – 1987)
-

- Streatfeild, Richard Alexander (1866 - 1919)
- Streight, Abel D. (1828 – 1892)
- Strickland, Agnes (1796 - 1874)
- **Strindberg, Johan August** (1849 – 1912)
- Strong, Josiah (1847 – 1916)
- Strong, Thomas Banks (1861 – 1944)
- Strong, William (1828 – 1902)
- **Strunk Jr., William** (1869 – 1946)
- Strutt, 3rd Baron Rayleigh, John William (1842 – 1919)
- Strutt, Joseph (1749 – 1802)
- Strype, John (1643 – 1737)
- Strzelecki, Paweł Edmund (1797 – 1873)
- Stuart, James Ewell Brown (1833 – 1864)
- Stuart, James Montgomery (1816 - 1889)
- Stuart, Jesse (1906 – 1984)
- Stuart, Leslie (1863 – 1928)
- Stuart-Jones, Henry (1867 - 1939)
- Stubbs, Charles William (1845 – 1912)
- Stukeley, William (1687 – 1765)
- Stulginskis, Aleksandras (1885 – 1969)
- Sturgis, Jonathan dates unknown
- **Sturluson, Snorri** (1179 – 1241)
- Sturm, Frank Pearce (1879 – 1942)
- Sturt, Beatrix Marion (1849 – 1944)
- Sturt, Charles (1795 – 1869)
- Sturt, Henry (1863 – 1946)

Su

- Suckling, John (1609 – 1642)
 - Suetonius (ca. 69/75 – after 130)
 - Sue, Joseph Marie Eugène (1804 – 1857)
 - Le Sueur, William Dawson (1840 – 1917)
 - Sullivan, Alan (1868 – 1947)
 - Sullivan, Sir Arthur Seymour (1842 – 1900)
 - Sullivan, James
 - Sullivan, William Kirby (1821 - 1899)
 - Sully, James (1842 – 1923)
 - Sulman, Florence (1876–1965)
 - Sulzer, Johann Georg (1720 – 1779)
 - Sumichrast, Frederic Cesar [de] (1845 – 1933)
 - Summers, James (1828–1891)
 - Summers, Walter Coventry (1869 - 1937)
 - Sumner, Charles (1811 – 1874)
 - Sumner, Heywood (1853 – 1940)
 - Sumner, John dates unknown
 - Sumner, William Graham (1840 – 1910)
 - Su Shi (1037–1101)
-

- **Sun Tzu** (c. 6th century BCE)
- Sun Yat-sen (1866 – 1925)
- Supan, Alexander Georg (1847 – 1910)
- Suslin, Alexander (? – 1349)
- Sutermeister, Paul (1864 – 1905)
- Sutherland, George (1862 – 1942)
- Sutton, Charles William (1848 – 1920)
- Sutton, George Augustus (1869 – 1947)

Sv

- Svedenstierna, Erik Thomas (1765 – 1825)
- Sveinbjörn Sveinbjörnsson (1847 – 1927)

Sw

- Swain, Joseph Ward (1891 – 1971)
- Swainson, William (1789 – 1855)
- Swanwick, Anna (1813 - 1899)
- Swatmarama, Swami (1350 – 1400 CE)
- Swarth, Harry Schelwald (1856 – 1935)
- Swartz, Olof (1760 – 1816)
- Swayne, Noah Haynes (1804 – 1884)
- Sweat, Noah S. "Soggy" (1922 – 1996)
- Swedenborg, Emanuel (1688 – 1772)
- Sweet, Henry (1845 – 1912)
- Swenson, David Ferdinand (1876 – 1940)
- **Swift, Jonathan** (1667 – 1745)
- Swifte, Edmund Lewis Lenthal (1777 – 1875)
- Swinburne, Algernon Charles (1837 – 1909)
- Swinburne-Hanham, John Castleman (1860 - 1935)
- Swinton, Robert Blair (1829 – 1912)

Sy

- Sykes, William (1827 – 1891)
 - Sylvester II, Pope (946 – 1003)
 - Symington, Andrew James (1826 – 1898)
 - Symonds, John Addington (1807 – 1871)
 - Symonds, John Addington (1840 – 1893)
 - Symonds, William Samuel (1818 – 1887)
 - Symons, Arthur (1865 – 1945)
 - Symons, Henry (1871 - 1922)
 - Symons, Thomas William (1849 – 1920)
 - Synge, John Millington (1871 – 1909)
-

Sz

- Szymanowski, Karol (1882-1937)

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