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VOCABULARY OF PHILOSOPHY

AND

STUDENT'S BOOK OF REFERENCE

ON THE BASIS OF FLEMING'S VOCABULARY.

BY

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P R E F A C E.

FLEMING'S *Vocabulary of Philosophy* has appeared in Four Editions, two of which were edited by me after the Author's death.

The Vocabulary and Student's Book of Reference now published is still on the basis of Fleming's, but it is substantially a new book.

The leading features of the present volume are these three:—1. Definitions of Philosophic Terms, showing changes in usage which have occurred; 2. Quotations from authors, supplying indications of the philosophic theory adopted; 3. Additional References for guidance in the use of a University or Public Library.

Numerous modifications in the use of terms have occurred within recent years, and very considerable additions have been made. As Zeller has fitly said, Philosophy becomes increasingly dependent on "collecting, criticising, and making up new material."

The most important additions now presented appear in two groups:—those which represent the marked intellectual activity, singularly able in character, of the Hegelian or Neo-Kantian school, unfolding Hegelian thought by a critical return upon Kant; and secondly, those which indicate the fresh life infused into Psychological study by the advance of Biological science, and by the patient research and brilliant discoveries in the region of Physico-Psychology, led by Fritsch and Hitzig in Germany, and by Ferrier in our own country, and followed up in many

laboratories in Europe and in America. The success of the theory of Evolution has largely stimulated both observation and speculation. Höffding has truly said that the Evolution Hypothesis opens for Psychology "a wider horizon, a prospect of explanation previously closed to us."

I have special satisfaction in acknowledging important obligations to colleagues in the University, each an authority in his own department: to Professor Crum Brown, M.D., for the article on "The Atomic Theory;" to Professor Seth, LL.D., for that on "Epistemology;" to Professor J. Shield Nicholson, D.Sc., for the article on "The Literature of Political Economy;" and to Professor S. S. Laurie, LL.D., for contributions under Education and Teaching. I have also been largely indebted to my Assistant, Charles M. Douglas, M.A., D.Sc., Lecturer in Philosophy in the University, first for his valuable articles on "The Brain" and "Experimental Psychology;" and besides, for numerous contributions and suggestions.

A number of articles, mainly logical in character, in the Fourth Edition of Fleming's *Vocabulary*, were written by Professor James Seth, M.A., now of Brown University, Providence, Rhode Island, U.S.A., and all of these have been retained in this work. Those articles (initialed J. W.) contributed to the earlier edition of Fleming's *Vocabulary* by James Weir, M.A., now of the English Bar, have also been retained.

In the General Index, reference to quotations will be found under the Authors' names. A separate Index is supplied for Greek, for Latin, and for German terms.

HENRY CALDERWOOD.

UNIVERSITY OF EDINBURGH,

June, 1894.

Students will confer a special favour by kindly reporting any error detected amongst the numerous references.

VOCABULARY OF PHILOSOPHY.

ABSOLUTE (*absolutum*, *ab* and *solvo*, to loose from).—Independent,—undetermined by relations. “The Absolute” is the Self-existent, Self-sufficient Being,—the Uncaused,—restricted neither in being, nor in action, by anything the universe contains. The term *Absolute* is the correlative of *Infinite*. Its proper significance is well indicated in Spinoza’s definition of Substance. “That which exists in itself and is conceived through itself, that is, that the conception of which needs the conception of no other thing by which it may be conceived.” *Ethics*, pt. i. def. 3.

The *adjective* “absolute” is used to indicate any existence or truth, regarded in itself as complete, apart from accidental features, or phenomenal manifestations. Thus, “absolute truth”; and in *Ethics*, “absolute law,” that is, authoritative independently of inducements. This usage in the service of abstract thinking, readily becomes artificial and misleading, as when reference is made to “absolute becoming.” Hamilton used *Absolute*, as opposed to The Infinite, to designate what is finished, perfect, complete. Such usage has been of slight account in Philosophy.

Philosophy is ultimately, by its very nature, a search for the Absolute—first for absolute truth, as distinct from mere appearance, and afterwards for The Absolute Being, as the source and explanation of all dependent existence, *ens realissimum*,—*ens summum*,—*ens entium*. Plato rises from the manifold to the

one, finding in the Idea the key to all varieties of manifestation in the world, and passing beyond Ideas, he contemplates that which is more than Idea—The Good—the centre and source of existence, “far exceeding Essence in dignity and power.” *Republic*, vi. 507–509.

So, in modern philosophy, thought points to the Absolute. Spinoza maintained that thought is true only as we think all things in God. *Ethics*, pt. ii. prop. 32. Kant, while insisting that we cannot have logical demonstration of the Divine existence, grants that the reason seeks to transcend the sphere of the understanding, in order to reach the Absolute, and holds that in the practical sphere, duty implies Deity. *Critique of Pure Reason* and of *Practical Reason*. In succession to this, come the speculations of Fichte and Schelling, concerning the Absolute.

They contemplate the Absolute as all in all. Fichte, making the conscious Ego the source of the Known, interprets existence as the manifestation of the Absolute Ego. Schelling, holding a system of Identity, represents subject and object as one in the Absolute.

Hegel makes The Idea the source of all, manifesting Itself, first in Nature, and afterwards in Spirit, thereafter returning upon Itself, as the Absolute Idea, “the unity of the Notion and its reality.” Green maintains that “the one divine mind gradually reproduces itself in the human soul.” *Proleg. to Ethics*, p. 189. How the Absolute is to be regarded,—Lotze’s *Philos. of Relig.*, Ladd, § 20, p. 32.

Whether under the conditions of consciousness, the Absolute can be known has been keenly discussed. Hamilton, arguing against Cousin, maintained the negative; *Discussions*, 1–38. Mansel supported this position; *Limits of Religious Thought: Essays*, p. 154, *Philosophy of Kant*, and *German Philosophy*. Calderwood argued the contrary, on the basis of faith and of the laws of intelligence; *Philosophy of the Infinite*. To this adverse criticism, Hamilton replied; *Metaphysics*, vol. ii. Append. v. For history of the discussion see Ueberweg’s *History of Philos.*, Morris; Append. I. by Noah Porter on “Philosophy in Great Britain and America,” vol. ii. 418.

Hamilton's position was accepted by the Experiential School as an illustration of the doctrine of relativity of knowledge. J. S. Mill's *Examination of Hamilton's Philosophy*, pp. 1-129; Herbert Spencer's *First Principles*, 3rd ed., pt. 1,—*The Unknowable*, pp. 1-126.

The following passages will indicate the general course of Spencer's argument:—"We cannot think at all about the impressions which the external world produces on us, without thinking of them as caused; and we cannot carry out an inquiry concerning their causation without inevitably committing ourselves to the hypothesis of a First Cause. But now, if we go a step further, and ask what is the nature of this First Cause, we are driven by an inexorable logic to certain further conclusions. . . . It is impossible to consider the First Cause as finite. And if it cannot be finite, it must be infinite. Another inference concerning the First Cause is equally unavoidable: It must be independent. If it be dependent, it cannot be the First Cause; for that must be the First Cause on which it depends. . . . Thus the First Cause must be in every sense perfect, complete, total; including within itself all power, and transcending all law. Or, to use the established word, it must be absolute." *First Principles*, pp. 37, 38. Treating of conflicting religious systems, Herbert Spencer says:—"Not only is the omnipresence of something which passes comprehension that most abstract belief which is common to all religions, which becomes the more distinct in proportion as they develop, and which remains after their discordant elements have been mutually cancelled; but it is that belief which the most unsparing criticism of each leaves unquestionable, or rather makes ever clearer." *Ibid.* p. 45. For more recent treatment of our knowledge of the Absolute, see Teichmüller's *Religion and Philosophy*; Pfeleiderer's *Philosophy of Religion*. Gifford Lectures; Max Müller, *Natural Religion and Anthropological Religion*; Hutchison Stirling, *Philosophy and Theology*; E. Caird's *Evolution of Religion*.

ABSTRACTION (*abstractio*, *ab*, from; *traho*, to draw away). That exercise of the mind by which attention is withdrawn from certain qualities in an object, or from certain objects

among many, and concentrated upon others. Abstraction and concentration are the two sides of one mental exercise. The name is also applied to the product of this exercise—(a) the representation of a quality, taken apart from the qualities with which it coheres; (b) a conception including a certain number of qualities to the exclusion of others, which becomes a “symbolic conception,” representing a class of objects or of occurrences.

Locke’s *Essay*, ii. ch. xi. sec. 9; Reid’s *Intellectual Powers*, essay v. ch. iii.; Stewart’s *Elements*, ch. iv.; Kant’s *Critique of Pure Reason*, Transcendental Analytic, bk. i.; Hegel’s *Vermischte Schriften*, ii. ch. viii. 2; Werke, xvii. 400; Hamilton’s *Metaphysics*, lect. xxxiv.; Mansel’s *Prolegomena Logica*, 2nd ed., p. 26; Ueberweg’s *Logie* (Lindsay), p. 127; Wallace’s *Logic of Hegel*, “Prolegomena,” ch. x.; Sully’s *Outlines of Psychology*, p. 342.

Whether we can represent an abstract conception, as an object present to our imagination, has been a subject of dispute.

“The mind makes the particular ideas received from particular objects to become general; which is done by considering them as they are in the mind, such appearances, separate from all other existences, and the circumstances of real existence, as time, place, or any other concomitant ideas.” Locke’s *Essay*, bk. ii. ch. xi. sec. 9.

Berkeley has said—“I own myself able to abstract *in one sense*, as when I consider some particular parts or qualities separated from others, with which, though they are united in some object, yet it is possible they may really exist without them. But I deny that I can *abstract* one from another, or conceive separately those qualities which it is impossible should exist separately; or that I can frame a general notion by *abstracting* from particulars as aforesaid, which two last are the proper acceptation of *abstraction*.” *Principles of Human Knowledge*, introd. sec. 10; Fraser’s *Selections from Berkeley*, 2nd ed., p. 17, 4th ed., p. 18.

Hume maintains “the impossibility of general ideas, according to the common method of explaining them,” holding that “a particular idea becomes general, by being annexed to a

general term." *Human Nature*, i. sec. 7; Green's ed., i. 330. See also "Essay on Sceptical Philosophy," *Inquiry*, sec. 12; Bailey's *Letters on Philos.*, 1st series, Letter 22.

Spinoza found the source of the gravest errors in philosophy in the *abstract* view of things which is natural to man, *i.e.*, in regarding things not as modes of the Divine Attributes, but as *res completæ*, independent individuals. Pollock's *Spinoza*, 201. Hegel condemned the abstract as the false, maintaining that the concrete alone is the real; the categories are empty, till they find content in the real.

John S. Mill censures the practice "of applying the expression 'abstract name' to all names which are the result of *abstraction* or *generalisation*, and consequently to all general names, instead of confining it to the names of attributes." *Logic*, 2nd ed., i. 35; bk. i. ch. 2, § 4; and bk. iv. ch. 2; and *Exam. of Hamilton's Philos.*, ch. 17.

Sully and Galton have maintained that Abstraction supplies the mind with *generic images*. According to this view, "what is in my mind is a kind of *composite* images formed by the fusion or coalescence of many images of single objects, in which individual differences are blurred, and only the common features stand out distinctly." Sully, *Outlines of Psychology*, p. 339; Galton on "Generic Images," *Nineteenth Century*, July 1879. "No matter how definite and concrete the habitual imagery of a given mind may be, the things represented appear always surrounded by their fringe of relations, and this is as integral a part of the mind's object as the things themselves are." James, *Text-Book of Psychology*, 241; Höffding's *Psychology*, 164.

ABSURD (*Absurdus*, irrational—logically contradictory).—The self-contradictory is absurd. The *reductio ad absurdum* is a proof of the irrationality of a position, adopted as a means of establishing its contrary.

ACADEMY (*'Ακαδημία*, or *'Ακαδημία*)—the name of the gymnasium in which Plato taught; hence his disciples were called "Academics," and the successive schools of Platonists "The Academies." The garden attached, a piece of ground left to the inhabitants of Athens by a hero named Academus

(or Hecademus), was acquired by Plato, and handed down to successive teachers.

The several schools of Platonists are known as the Old, Middle, and New Academies.

The Old Academy consisted mainly of disciples who had been under the teaching of Plato himself. Their first leader was Speusippus, son of Plato's sister. He was succeeded by Xenocrates of Chalcedon, who was held in high estimation among the Athenians. The doctrine of the First Academy was a continuation of Platonic teaching, with some admixture of the Pythagorean philosophy. In all its teaching, prominence was given to Ethics. Its influence extended from 347 B.C. to the close of the century. Diogenes Laërtius, iv. 1; Ritter's *Hist. of Ancient Philos.*, transl. Morrison, ii. 455. Zeller's *Plato and the Older Academy*, Alleyne and Goodwin, p. 553; Ueberweg's *History*, i. 134; Ferrier's *Greek Philosophy*; Pater's *Plato and Platonism*.

The Middle Academy developed a sceptical tendency in opposition to the Stoics. The two most conspicuous names connected with it are Arcesilaus and Carneades. This Academy belonged to the two centuries preceding the Christian era. Arcesilaus is described as the "founder of the Middle Academy, and the first who professedly suspended judgment because of the conflict of evidence." Diog. Laërt., iv. 28. Cicero, *Acad. Post.*, i. 12, represents him as denying certainty in knowledge. This sceptical tendency, sustained by a keen critical spirit, became characteristic of the School, even while owning admiration of Plato. Ritter's *Hist.*, iii. 600; Ueberweg's *Hist.*, i. 136; Schwegler's *Hist.*, 136; Benn, *Greek Philosophers*, ii. c. 3.

The New Academy, just before the Christian era, owed its origin to Philo of Larissa, at a time when the Stoics were exercising great influence, and was a reaction against the scepticism of the Middle Academy, returning upon the Platonic doctrine concerning supersensible existence. Antiochus of Ascalon carried this reaction still further. The teaching of the School dealt largely with Ethics, and involved a discussion of the Peripatetic and Stoic Philosophy. Cicero refers to both Philo and Antiochus as teachers whom he had heard and known. *Brutus*, p. 89;

Tusc., ii. 3, 9; *Acad. Pr.*, ii. 4; Ueberweg's *Hist.*, i. pp. 136, 215; Ritter's *Hist.*, iii. p. 632; Lewes's *Hist.*, i. 361; Archer Butler's *Lectures on Ancient Philosophy*, 4th series, ii. 313.

By some, the Middle and New Academies are subdivided, making five Academies.

ACATALEPSY (*a*, privative; and *κατάληψις*, *comprehensio*), incomprehensibility, the doctrine held by the Academics of the Middle Academy, and by the sceptics, that human knowledge amounts only to probability, never to certainty. Plutarch, ii. 1122A, Πρὸς Κολώτην; Diog. Laërt., ix. 61, Pyrrho. Arcesilaus, chief of the Second Academy, expressly taught that we know nothing with certainty.

ACCIDENT (*accido*, to happen). (1) A modification or quality which does not essentially belong to a thing, not forming one of its constituent and invariable attributes. Accident is in this respect distinguished from *property*. (2) Any quality, or attribute, as opposed to *substance*. (3) Logically, an extrinsic denomination. Aristotle's *Metaph.*, iv. 30; Hamilton's *Logic.*, i. 216.

ACOSMIST (*a*, priv., and *κόσμος*, world), one who theoretically denies the existence of the universe as existence distinct from the Absolute Being. "Spinoza did not deny the existence of God; he denied the existence of the world; he was consequently an *acosmist*, and not an atheist." Lewes, *Biog. Hist. of Phil.*, p. 1. So Hegel names him. Hegel's *Geschichte der Philosophie*, iii., Werke,—ed. Michelet,—xv. 361; Mansel's *Proleg. Log.*, 279, second ed. 298; Pollock, *Spinoza*; Martineau's *Study of Spinoza*.

Spinoza's position will appear from the following extracts:—
"All things are determined by the necessity of the Divine nature not only to exist, but also to exist and to act in a definite manner." So he distinguishes *natura naturans* from *natura naturata*. The former is "such attributes of substance as express an eternal and infinite essence, in other words God." The latter is "all that follows from the necessity of the nature of God."

ACROAMATIC (from *ἀκροάομαι*, to hear, as in attending to instruction). Designed for the hearing of the initiated, applied

to the lessons which were *Esoteric* (ἑσωτερικός) in contrast with the *Exoteric*, those given to general audiences (ἐξωτερικός).

The works of Aristotle have been divided into Acroamatic and Exoteric. It has been disputed whether this Classification concerned the substance of the teaching, or only the form of presentation. Ueberweg's *Hist. of Philos.*, Morris's Tr. i. 143.

ACTION.—(1) Exercise of vital energy, in contrast with mere motion ; (2) intelligent, self-directed exercise. Aristotle defines voluntary action as "that the ἀρχὴ of which is in the agent himself." *N. Ethics*, iii. i. 20 ; (3) ethical,—action subject to moral law. All intelligent action implies motive and purpose. Motive, purpose, and overt act must together be regarded as constituting completed voluntary act.

"Action is not the object of moral consideration unless, in the mental process preceding it, mere desire has become converted into *will*, by the mixture of something of imagination, deliberation, and choice." Johan Grote, *Moral Ideals*, 121. On "unreasonable action," Sidgwick, *Mind*, new series, ii. 174. Nature of physical action ; Lotze's *Metaph.*, i. ch. 5.

ACTUAL (*quod est in actu*) is opposed by Aristotle to *potential*. Accomplished, as fact. In its widest application, it is the existing ; more properly, that which has been worked out, or realised ; the product of effort, the entelechy, ἐντελέχεια. The contrast between *actual* and *potential*, involves Aristotle's distinction between δύναμις, and ἐνέργεια. Aristotle, *De Anima*, ii. 1 ; *Metaph.*, viii. 3 ; Schwegler's *Hist. of Philos.*, Stirling, 108 ; Lotze's *Metaph.*, Bosanquet, i. § 41.

ACTIVE POWERS, the term employed by the early Scottish philosophers to designate the moral powers, as contrasted with the "Intellectual Powers." "The Active Powers" are the powers concerned with human action, as contrasted with those whose end is knowledge. Reid's *Intellectual Powers*, essay i. ch. vii. ; Reid's *Active Powers*, introd., and essay i. ch. i. ; Stewart's *Philosophy of the Active and Moral Powers of Man*, Introd. Works, vi. 117 ; Hamilton's *Reid*, notes 242A, 511A. The designations are inappropriate, inasmuch as the intellectual powers are eminently active, and the moral powers must include intellectual power as a first requisite.

On this account the phrase "Active Powers" has been abandoned, "Moral Powers" being inclusive of cognitive power (Conscience), and impulsive power (Desire).

ADEQUATE (*adæquo*, to equal), sufficient. Applied to our cognitions. Our knowledge of an object is adequate or complete when it extends to all the properties of that object. The word implies the equivalence of expression and experience, —of thought and reality. Ultimately this concerns the sufficiency of our interpretation of experience.

Spinoza, in accordance with his monistic scheme, uses "adequate" to express the reference of all things to their source in God. In default of this, there is absence of true cognition. What is stated, is false. In this scheme, the test of truth is not in the object, but in the conception which rules thought:—"By an adequate idea, I understand an idea which, considered in itself, without relation to the object, possesses all the properties and intrinsic characters of a true idea. I say *intrinsic*, in order to exclude that work which is extrinsic, namely, the agreement between the idea and its object (*ideato*)." Spinoza's *Ethics*, pt. ii. defin. 4. "Falsehood consists in the absence of the cognition which inadequate or imperfect and confused ideas involve." Prop. 35.

ADMIRATION.—Delight in contemplation of an object, scene, or person. Shaftesbury treats of the native sensibility which is the criterion of judgment as to excellence, and defines "natural affections" as, "such as are founded in love, complacency, good-will, and sympathy with the kind." Shaftesbury's *Characteristics*, part iv. § 2; part iii. § 3; *Inquiry Concerning Virtue*, bk. i. sec. 3; Bain's *Emotions and Will*, 147.

ÆSTHETIC (*αἰσθησις*, sensation, sense of a thing), feeling as dependent on physical sensibility, perception by the senses; or on Emotional Nature. It is applied by Plato (*Phædo*, iii.) to vision of an intellectual order, *αἰσθησις τῶν θεῶν*. (1) The science of the beautiful, or philosophy of the Fine Arts. (2) In the philosophy of Kant, it is knowledge obtained through the sensory.

In Æsthetics, philosophy deals with the sense of the beautiful, and with its representation or creation in works of Art.

Æsthetic, seeking for a philosophy of this particular form of experience has to account for its subjective nature as experience, and has to ascertain the objective correlate to experiences, and to consider whether there is an absolute beauty. Plato did not expressly distinguish the Æsthetic from the Ethical, but found the two combined in *καλοκάγαθία*. He had in the *Republic*, 395, discredited the work of the artist, in so far as it may be mere imitation, and often is imitation of evil. He insisted that true art depends on singleness of aim, and must constantly regard "the true simplicity of a rightly and nobly ordered mind and character." He, however, maintained the existence of an absolute beauty—*αὐτὸ τὸ καλόν*—the archetypal idea in which all beautiful things participated. Aristotle, in the *Rhetoric* and *Poetics*, distinguished carefully between the conceptions of the beautiful and the good, in treating of the representations of excellence presented by the orator, and by the poet.

In modern philosophy, Kant, in his *Critique of Judgment*, treats in detail of the necessary and universal principles of æsthetic experience. Kant has been followed in this by Schelling and Hegel, and by the Transcendental School generally. Besides discussions specifically philosophical, æsthetical investigation abounds in the works of Goethe, Schiller, Lessing, and Jean Paul; and in England in the writings of Reynolds, Ruskin, and other leaders in art. Bain and Spencer have applied the principle of evolution to Æsthetics. Baumgarten's *Æsthetica*, 2 vols., Frankfort, 1750-8. Kant's *Kritik of the Æsthetical Judgment*, *Kritik of Judgment*, Bernard, 43-256; *Werke*, Rosenkranz, iv.; Hegel's *Æsthetik*, *Werke* x.; Kedney, *Hegel's Aesthetics*,—Philos. Classics; Schopenhauer, *World as Will and Idea*, Haldane and Kemp, iii. 173-219; Burke, *The Sublime and Beautiful*; Alison, *On Taste*; Lord Jeffrey, art. "Beauty," *Ency. Brit.*, 8th ed.; Bain, *Emotions and Will*; Cousin, *True, Beautiful, and Good*; Spencer, *Principles of Psychology*, ii. 627; Sully, *Outlines of Psychology*, p. 531, and art. "Æsthetics," *Ency. Brit.*, 9th ed.; M'Vicar, *The Philosophy of the Beautiful*. For an account of the various theories: Bain, *Mental and Moral Science*; Bosanquet's *History*

of *Æsthetic*; Lotze, *Geschichte der Æsthetik Deutschlands*; Knight's *Philos. of the Beautiful*, vol. i.

In the Critical Philosophy, Kant uses the term *Æsthetic* as the designation of "the science of the laws of sensibility," as these determine our relation to an external world. *Æsthetic* is thus the first stage in his search for a critical theory of knowledge, to be followed by Transcendental Logic, with its Analytic, and Dialectic. In treating of sensibility, he seeks "pure representations," "wherein nothing is met with that belongs to sensation," or impression made on our sensory. This is "Transcendental *Æsthetic*," giving "the pure forms of sensuous intuitions." The term is thus used by Kant, to denote the science of the *à priori* conditions of sensuous experience, *i.e.* of perception. This belongs to the first part of the *Critique of Pure Reason*, where is an account of the forms which make perception possible, *viz.*, Space and Time. "The science of all the principles of sensibility, *à priori*, I call transcendental *æsthetic*." Kant, *Critique of Pure Reason*, pt. i., note; Meiklejohn's Tr., p. 22.

AFFECTION (*ad* and *facio*).—(1) Any impression made on the sensory system. (2) A disposition in consciousness attracting an agent towards others. The affections are motive forces, in close relation with Intelligence, and superior to desire.

"There are various principles of action in man which have *persons* for their immediate object, and imply, in their very nature, our being well- or ill-affected to some *person*, or at least to some animated being. Such principles I shall call by the general name of *affections*, whether they dispose us to do good or hurt to others." Reid, *Active Powers*, essay iii. pt. ii. ch. iii.—vi. The Affections are often named Emotions.

One of the most important divisions of empirical psychology, concerned with Feeling, is that which treats of the natural history of the affections. Bain's *Emotions and Will*, ch. iii.; Cycles, *Process of Human Experience*, ch. x. p. 267; Sully's *Outlines of Psychology*, p. 489, and *Human Mind*, ii. 56; Martineau's *Types of Ethical Theory*, B. i. c. 5, § 3.

AFFERENT (*ad*, to; and *fero*, to carry).—The class of nerves, which carry the effect of excitation from the surface

of the body to the central nervous system. Foster, *Text-book of Physiology*, 5th ed. p. 850.

AFFIRMATION (*ad*, to; *fermo*, to make fast).—The asserting that something exists, or the attributing of one thing to another. A mental affirmation is a judgment; when formally expressed, it is a proposition.

A FORTIORI (*a*, from; *fortior*, stronger).—Argument from the greater to the less, as when that which has been proved to hold true of a whole class, is inferred to hold true of a part of the class.

AGNOSTICISM (*a*, priv.; *γνώσις*, knowledge,—*γνωστός*, known).—A theory of ignorance, founded on the limits of our cognitive powers. In its widest form, Agnosticism maintains that a declaration of Ignorance is the only thing competent as to possible existence out of relation with our senses. In a more guarded form, Agnosticism, making account of the testimony of consciousness, as well as that of the senses, recognises matter and spirit as two distinct orders of existence in Nature, but proclaims ignorance of the Supernatural. What is directly known by the senses and by consciousness, and all that can be logically inferred from what is thus known, belongs to the realm of knowledge; everything transcending this is unwarranted hypothesis, or speculation concerning the Supernatural. Professor Huxley says:—"Wise men will probably agree to a verdict of 'not proven' in respect of naturalistic theology, taking refuge in that Agnostic confession which appears to me to be the only position for people who object to say that they know what they are quite aware they do not know." Prologue to *Essays on some Controverted Questions*. The refuge may be reasonable, while the verdict is questionable. For if the statement of the principle be taken in Professor Huxley's words,—*Nineteenth Century*, vol. xxv. pp. 937-8,—June 1889,—"that it is wrong for a man to say that he is certain of the objective truth of any proposition unless he can produce evidence which logically justifies that certainty," every man will agree with it. The question is what are the limits, and what the possibilities, of our cognitive powers? Is our knowledge restricted by observation, or expanded by reason? When these questions are

pressed, it will be found that those who agree as to the principle as stated, differ as to the limits of our knowledge, and as to the range of possibilities, and consequently as to the conditions of certainty. A legitimate Agnosticism there obviously is; but what that is, depends on a true theory of Ignorance.

"The sum of all the possible objects of our cognition seems to us to be a level surface, with an apparent horizon. . . . All the questions raised by pure reason relate to that which lies beyond this horizon, or at least in its boundary-line. The celebrated David Hume was one of those geographers of human reason who believe that they have given a sufficient answer to all such questions by declaring them to lie beyond the horizon of our knowledge,—a horizon which, however, Hume was unable to determine." *Kant's Pure Reason*, Meiklejohn, 462.

ALTRUISM (*alter*, another).—The form of the Happiness Theory, which makes a regard to the happiness of *others* the basis of moral distinctions. This phase of the Utilitarian Theory, stands in contrast with Egoism, which was the earlier phase of the doctrine. Egoistic Hedonism makes personal happiness the end of life; Altruism insists that we must find our own happiness in that of others. The "felicific" is the end for both.

J. S. Mill says:—"Pleasure and freedom from pain are the only things desirable as ends." *Utilitarianism*, p. 10. But he adds, the "standard is not the agent's own greatest happiness, but the greatest amount of happiness altogether." *Ib.* p. 16. "Utility would enjoin that laws and social arrangements should place the interest of any individual as nearly as possible in harmony with the interest of the whole." *Ib.* p. 25.

At the basis of the theory lies the acknowledgment that each man's happiness is as much to him, as mine is to me. Or, one man's happiness "cannot be a more important part of Good, taken universally, than the equal happiness of any other person." H. Sidgwick's *Methods of Ethics*, bk. iv. 417. In the reckoning of the sum of happiness, each man must count for one, no man for more than one.

In contrast not only with the Egoism of Hobbes, but with the Altruistic scheme of Jeremy Bentham, Comte and Mill

held "that the more *altruistic* any man's sentiments and habits of action can be made, the greater will be the happiness enjoyed by himself, as well as by others." Sidgwick, *Outlines of the History of Ethics*, p. 257.

AMBITION (*ambio*, to go about seeking power). Desire of power,—regarded as one of the original desires of human nature. Reid, *Active Powers*, essay iii. pt. ii. ch. ii.; Stewart, *Active Powers*, bk. i. ch. ii. sec. 4.

AMPHIBOLY (*ἀμφιβολία*, ambiguity).—A proposition of a doubtful, because of double sense. Aristotle distinguishes it from *equivocatio*, *δμωνυμία*, ambiguity in terms taken separately. *The Sophistical Elenchi*, ch. iv.; *Organon*, transl. Owen, ii. 544; *Opera*, ed. Buhle, iii. 528; Whately's *Logic*, bk. iii. sec. 10.

The term is applied by Kant to the confounding in process of reflection of pure notions of the understanding with objects of experience, and attributing to the one characters and qualities which belong only to the other. Kant's *Critique of Pure Reason*, Transcendental Analytic of Principles, bk. ii. ch. iii. app., entitled, "Of the equivocal nature or *Amphiboly* of the conceptions of reflection from the substitution of the transcendental for the empirical use of the understanding."

ANALOGUE (*ἀνάλογία*, proportion).—That which corresponds with another, resembling it in nature, structure, or function.

In Biology, "resemblance of structures, which depends on similarity of function. Such structures are said to be analogous, and to be analogous of each other." Darwin's *Origin of Species*, 405.

"By an *Analogue* is meant an organ in one animal having the same function as a different organ in a different animal. The difference between *Homologue* and *Analogue* may be illustrated by the wing of a bird and that of a butterfly: as the two totally differ in anatomical structure, they cannot be said to be *homologous*, but they are *analogous* in function, since they both serve for flight." M'Cosh, *Typical Forms*, p. 25.

ANALOGY (*ἀναλογία*, proportion).—An argument from Analogy is a defensive argument, in support of any position or

hypothesis, drawn from similarity of phenomena recognised in different relations. The argument from analogy cannot be constructive, being competent only for defence, or suggestion.

It has been "defined 'the similarity of ratios or relations.' It is the inference that, because two phenomena resemble in *some* points, they may resemble in *all*. Its value depends on the *importance* of the points of resemblance observed, and on their proportion to the points of difference and to the whole points." Thomson, *Laws of Thought*, 3rd ed., p 327.

"It is on the whole more usual to extend the name of analogical evidence to arguments from any sort of resemblance, provided they do not amount to a complete induction: without peculiarly distinguishing resemblance of relations. Analogical reasoning, in this sense, may be reduced to the following formula:—Two things resemble each other in one or more respects; a certain proposition is true of the one, therefore it is true of the other." Mill's *Logic*, bk. iii. c. 20.

Kant, in his *Transcendental Analytic*, bk. ii. ch. ii. sec. 3, treats of "Analogies of Experience," saying that "experience is possible only through the representation of a necessary connection of perception." The analogies referred to are these three—the permanence of substances through all changes in phenomena,—all changes take place according to the law of the connection of cause and effect,—all substances perceived in space, coexist in a state of complete reciprocity of action. *Critique of Pure Reason*, Meiklejohn, p. 132; Max Müller, ii. 155.

ANALOGY and INDUCTION.—In *Induction* we argue from *some* cases observed to *all* cases of the same phenomena. In *Analogy* we argue from *partial* to *complete* resemblance between two cases, from *some* points observed to resemble, to *all* points. "But we have nothing here by which to discriminate analogy from induction, since this type will serve for all reasoning from experience." Mill's *Logic*, bk. iii. c. 20; Locke, *On Human Understanding*, bk. iv. ch. xvi. sec. 12; Butler, *Analogy of Religion*; Beattie's *Essay on Truth*, pt. i. ch. ii. sec. 7; Stewart's *Elements*, vol. ii. ch. iv. sec. 4; Stewart's *Essays*, v. ch. iii.; Berkeley's *Min. Philos.*, Dialog. 4; Fraser's *Selections*

from Berkeley, 2nd ed., 258; Bailey's (Sam.) *Discourses*, 181; Ueberweg, *Logic*, p. 491, transl. Lindsay.

ANALYSIS (ἀνὰ λύω, to unloose; *resolutio*).—Separation of the parts of a complex whole; or mental discrimination of parts combined in unity. In philosophy, it is the resolution of our experience into its constituent elements, with a view to reconstruction of these, with full regard to their relations in the mental state to which they belong. But this analysis of consciousness is not an actual severance of its elements. It is merely concentration introspectively on distinguishable features, which cannot be severed. The whole purpose of such analysis is a secure advance to a synthesis of experience.

“The problem of psychology, in dealing with its complex subject-matter, is, in general,—first, to ascertain its constituent elements, and secondly, to ascertain and explain the laws of their combination and interaction.” Ward, article “Psychology,” *Ency. Brit.*, 9th edition.

In the structure of Kant's theory of knowledge, “Analytic” is that part of the Transcendental Logic reached when, isolating the Understanding from the sensibility, we make account of the *elements* of pure cognition of the understanding. *Pure Reason*, pt. ii., Intro. Meiklejohn, 53.

Kant distinguishes between Analytic Judgments and Synthetic. The former are judgments in which the predicate is only the explanation of the conception. That which is implicit (*dunkel*) is made explicit (*klar*). *Pref. of Metaph. since Leibnitz and Wolf*, Werke, Rosencranz, i. 565. Bosanquet's *Logic*, 97.

ANALYTICS (Τὰ Αναλυτικά).—The title ANALYTICS given to a portion of the *Organon*, the logical treatises of Aristotle. It does not appear that Aristotle gave this title to the Prior and Posterior Analytics when the books were written. Twice, however, in the *Metaphysics* he uses the term ἀναλυτικά as applicable to the division of logic involved. Once (*Metaph.*, iv. 3) he charges some philosophers with ignorance of analytics, alleging that they hold their position δι' ἀπαιδευσίαν τῶν ἀναλυτικῶν. And, more directly, referring to his own Logical Treatises, he says (*Metaph.*, vii. 12) that no statement has been made concerning definition in the Analytics, ἐφ' ὅσον ἐν τοῖς

ἀναλυτικοῖς περὶ ὀρισμοῦ μὴ εἶρηταν. The title τὰ ἀναλυτικά has been applied to the books which treat of the analysis of thought, the Prior dealing with the syllogism, the Posterior with proof and the conditions of knowledge.

ANIMA MUNDI (soul of the world).—The central feature of the hypothesis that Nature is a living organism possessing intelligence. The most Ancient Philosophy favoured the conception of a force, immaterial, and inseparable from matter, giving to matter its form and movement. Pythagoras obscurely acknowledged such a force, holding that the world was living and intelligent, *κόσμον ἔμψυχον, νοερόν.* Diog. Laert., viii. 25. See Bradley's *Logic*, bk. iii. pt. i. c. vii. p. 461. From Pythagoras it passed into the system of Plato, who held that pure spirit, the seat of eternal idea, could not act directly upon matter. In the *Timæus*, "the most obscure" of the dialogues, as Jowett says, in which the influence of Pythagoras is conspicuous, Plato gives an account of the origin of the world, teaching that "the world became a living soul and truly rational—τὸν κόσμον ζῶον ἔμψυχον ἔννοον—through the Providence of God." *Timæus*, 30. This is in accordance with the fixed plan of the Creator, for he "put intelligence in soul, and soul in body, and framed the universe to be the best and fairest work in the order of nature." *Timæus*, 34, *seq.* The soul of the world was the source of all its life, sensibility, and movement. In the teaching of the Stoics, the *anima mundi* usurped the place and even the name of God. The School of Alexandria, adhering to the views of Plato, recognised intelligence and Deity as above the *anima mundi*, which they conceived as intermediate between the Creator and His works. The hypothesis of the *anima mundi* reappeared among the Neo-Platonists under the name of *Archæus*—the vital principle. It was not entertained by the scholastic philosophers. In modern philosophy, it appears in the speculations of Schelling,—*Naturphilosophie*. Ritter's *Ancient Philos.*, vol. i.; Cudworth's *Intellectual System*, bk. i. c. iii.; Archer Butler's *Ancient Philos.*, ii. 173; Lotze's *Microcosmus*, trans. Hamilton, i. 15, 23.

ANIMAL INTELLIGENCE.—The intelligence to be attributed to animals is to be determined by reference to the

higher orders of life, and especially to such animals as come into close relation with man. Two lines of evidence are available. First, that supplied by their action in their natural state, when the animals are left to their own resources ; Second, that supplied by domestication and training. After the evidence from these two sources has been gathered, the test must be found in the fitness of animals for intelligent progress.

The conflict of opinion as to the characteristics of a distinctive intelligence in animals is naturally great, on account of the limited range of our observations, and the difficulty experienced in applying tests. Special interest belongs to this inquiry as it bears on the hypothesis of Evolution, and the great perplexities encountered in attempting to include man within continuity of life on the earth. There are here two inquiries, to be kept distinct: What species of intelligence is to be assigned to one of the higher animals, such as the dog? How far does such intelligence give promise of the rational intelligence belonging to man? The biological problem is one; the problem of evolution is another.

The consensus of opinion is largely in favour of the acknowledgment of an animal intelligence superior to sensibility, inferior to rationality. A rough generalisation warrants a threefold classification,—sensori-motor functions, interpretation of signs, and rationalising processes ; it thus becomes possible to classify the orders of life on the earth,—as non-intelligent, intelligent, and rational. Instinct seems to be spontaneous sensibility, impulsive in character, so leading to reflex activity. See *Antennæ*.

The Evolution hypothesis has complicated the inquiry, by tending to mix up the two problems. Those on the one side, favour higher views of animal intelligence ; those on the other, favour lower. Each becomes a check on the other, promising attainment of proximate, if not final conclusions, as the result of continued investigation.

Of the more favourable accounts of animal intelligence, examples are supplied in Herbert Spencer's *Principles of Biology* ; Darwin's *Descent of Man* ; Romanes, *Animal Intelligence*.

Of the more restricted views involving the evolution hypothesis in serious difficulties,—Wallace's *Darwinism* ; Lloyd

Morgan's *Animal Intelligence*; Calderwood's *Relations of Mind and Brain*, and *Evolution and Man's Place in Nature*.

ANIMISM (or *Spiritism*).—A doctrine of soul as distinct from body, and separated from it at death; a doctrine generally believed among uncivilised tribes. Tylor's *Primitive Culture*, 2 vols., supplies a valuable store of evidence as to the prevalence of this belief. Martineau's *Study of Religion*, ii. 349; Pfeiderer's *Philos. of Religion*, iii. 9 and 40.

ANTENNÆ.—"Jointed organs appended to the head in insects, crustacea, and centipedes, and not belonging to the mouth." Darwin's *Origin of Species*, Glossary, 406. The marvellous sensibility and flexibility of these organs do much towards explanation of the superiority of insects to which we are accustomed to attribute high intelligence. See Drawing of Antenna of Ant,—Calderwood's *Relations of Mind and Brain*, 211.

ANTHROPOLOGY (*ἄνθρωπος* and *λόγος*, the science of man). The natural history of the human species. It includes all the sciences which relate to man—soul and body—individual and species. *Anthropology* determines the relations of man to the other mammalia; *ethnology*, the relations of the different varieties of mankind to each other. Latham, *Nat. Hist. of Varieties of Man*, p. 559.

Journal of Anthropological Institute, from 1871; Broca, *Mémoires d'Anthropologie*, 4 vols.; *Zeitschrift für Ethnographie*; *Dictionnaire des Sciences Anthropologiques*, Bertillon. Report of Anthropological Section of Smithsonian Institution, Washington, U.S.A.; Lyell, *Antiquity of Man*; Bray, *Manual of Anthropology*; Lubbock, *Prehistoric Times*, and *Origin of Civilisation*; Quatrefages, *Human Species*; Tylor, *Anthropology*; Nadaillac, *Die ersten Menschen*; Ranke, *Der Menschdel*; Topinard, *Anthropology*, tr. by Bartley; F. Müller, *Ethnographie*; Waitz-Gerland, *Anthropologie*; Mortillet, *Le Pré-historique*.

ANTHROPOMORPHISM (*ἄνθρωπος*, man; *μορφή*, form). The representation of Divine attributes under human forms, as if these attributes were only human attributes enlarged.

Its lowest type is the representation of material form. The

ascribing of bodily members to Deity is condemned by Cicero, *De Nat. Deor.*, lib. i. cap. 27. Spinoza, while holding that all things are in God, and maintaining also that God is an extended being, *Ethics*, pt. ii. prop. ii., yet affirms that "all who ever thought of the Divine nature in any proper way, deny that God is corporeal . . . nothing can be more absurd than a conception of the kind associated with God, the absolutely infinite being." Pt. i. prop. xv. *schol.*

"We ought not to imagine that God is clothed with a human body, as the *Anthropomorphites* asserted, under colour that that figure was the most perfect of any." Malebranche, *Search after Truth*, bk. iii. ch. ix.

The more legitimate use of the term is that which restricts reference to the mind. This suggests that in human intelligence we have some guide to knowledge of the Absolute. We turn most fitly to the thinking subject for knowledge of the Supreme. Hume applies the name to those who think the mind of God is like the mind of man. *Dial. on Nat. Relig.*, pts. iv., v. Hume, *Works*, Green's ed., ii. 405. That the first cause must be an absolute, infinite Intelligence, is clear on the admission of a first cause; but that absolute intelligence can be such in action as the rationalising intelligence of man, is impossible.

For Kant's view of *Anthropomorphism* as the source of superstition, see *Kritik der Pract. Vernunft*,—*Werke* viii. 279; Abbot's *Kant's Theory of Ethics*, 233; Mansel on "the morbid horror" of *Anthropomorphism*,—*Limits of Religious Thought*, Lect. i.

Cousin, *Hist. of Philos.*, tr. by Wight, i. 34; Martineau's *Study of Religion*, i. 333; Fairbairn's *Studies in Philosophy*, p. 51; Seth's *Hegelianism and Personality*; Caird's *Evolution of Religion*, i. 239.

ANTICIPATION (*anticipatio*).—The exercise of the mind in projecting itself from the known to the unknown, while depending on knowledge of the existing, for guidance. Epicurus used *πρόληψις* to denote a general notion, or product of the imagination, enabling us to conceive beforehand of an object which has not come under the cognisance of the senses.

According to Diog. L. x. 31, Epicurus placed *πρόληψις* amongst criteria of truth.

Cicero indicates that by Epicurus the term *πρόληψις* was extended to what is supersensual, and included what is now called knowledge *a priori*. "*Quæ est enim gens, aut quod genus hominum quod non habeat, sine doctrina anticipationem quandam Deorum; quam appellat πρόληψιν Epicurus, id est, anteceptam animo rei quandam informationem sine qua nec intelligi quidquam, nec quæri, nec disputari potest.*" *De Nat. Deor.*, lib. i. cap. 16. According to Diogenes Laërtius, lib. vii. secs. 51, 53, 54, the Stoics defined *πρόληψις* to mean "a natural conception of the universal." Hamilton says:—"It is not to be supposed that the *κοινὰ ἔννοιαι, φυσικαὶ πρόληψεις*, of the Stoics, far less of the Epicureans, were more than generalisations *a posteriori*. Yet this is a mistake, into which, among many others, Lipsius and Leibnitz have fallen in regard to the former." *Reid's Works*, note A, p. 774; Zeller, *Hist. of Greek Phil.*, Stoics, Epicureans, and Sceptics, Eng. transl., for the Stoic teaching, pp. 79, 89, of the Epicureans, 403, 439; Ritter's *Hist. of Anc. Phil.*, Eng. transl., iii. 426; Ueberweg's *Hist. of Philos.*, Morris, i. 204; Schwegler's *Hist.*, 224; Mill's *Exam. of Hamilton*, 3rd ed., 219.

In his "Transcendental Philosophy," *Anticipations of Perception* are included among Kant's "principles of pure understanding." Though the matter of Sensation "is just that element of knowledge which cannot be at all anticipated," but must be waited for, as the *given*, yet "if there should be something in every sensation that could be known *a priori* as sensation in general, without any particular sensation being given, this would, in a very special sense, deserve to be called Anticipation." *Critique of Pure Reason*, Transc. Analytic, bk. ii. ch. ii. sec. 3, Tr. by Meiklejohn, p. 125; Tr. by Max Müller, ii. 147; Hutcheson Stirling's *Text-Book to Kant*, 484.

"All cognition by means of which I am enabled to cognise and determine *a priori* what belongs to empirical cognition, may be called an anticipation; and without doubt this is the sense in which Epicurus employed his expression *πρόληψις*," *Ib.*

Expectation is characteristic of Modern Science, under which

“the uniformity of Nature” has become an axiom. Höffding’s *Psychology*, 304 ; Relations of Memory and Expectation, Sully’s *Psychology*, 252, 259.

ANTINOMY (*ἀντί*, against ; *νόμος*, law), the opposition of one law or rule to another law or rule. It is “the self-contradiction of seemingly dogmatic cognitions (*thesis cum antithesi*), in none of which we can discover any decided superiority.” *Pure Reas.*, Kant, Tr. by Meiklejohn, 263. Antinomy arises, according to Kant, from the attempt of *Understanding* to solve the problems of *Reason*, seeking to construct, by aid of the *categories* of the former, objects adequate to the *ideas* of the latter. *Critique of Pure Reason*, Transcendental Dialectic, bk. ii. ch. ii.; Meiklejohn’s translation, p. 266 ; Max Müller’s, ii. 351. The following are his Antinomies in cosmology :—

Thesis.

I.

Antithesis.

The world has an origin in time, and is *quoad* space shut up in boundaries.

The world has no beginning and no bounds.

II.

Every compound substance in the world consists of simple parts ; and there is nothing but the simple, or that which is compounded from it.

No composite consists of simple parts ; and there exists nowhat simple in the world.

III.

It is requisite to assume a *Free* causality to explain the phenomena of the world.

There is no Freedom. Everything in the world happens according to the laws of nature.

IV.

To the world there belongs somewhat which, either as its part or its cause, is an absolutely necessary being.

There exists no absolutely necessary Being, neither in the world nor out of the world, as its cause.

For criticism of these Antinomies, see Semple, introd. to *Metaphysic of Ethics*, 1st ed., p. 95 ; Caird’s *Critical Philosophy of Kant*, ii. 40.

ANTIPATHY (*ἀντί*, *πάθος*, dislike, aversion of feeling).—An aversion entertained, whether voluntarily or involuntarily

to some sensible object, or towards a person. Antipathy is spontaneous, consequent on sensibility; or acquired, depending on sentiment. Locke, *Essay*, bk. ii. ch. xxxiii. sects. 7, 8; Calderwood's *Handbook of Moral Philosophy*, p. 161; Bain's *Emotions and Will*, 3rd ed., p. 183; Sully, *Outlines of Psychology*, p. 582.

A PARTE ANTE, and **A PARTE POST**.—These two expressions, from the scholastic philosophy, refer to Eternity. Man can only conceive of Eternity as consisting of two parts; the one without limits in the past, *a parte ante*; and the other without limits in the future, *a parte post*,—both predicable of the Divine existence.

APATHY (*ἀ*, privative; and *πάθος*, passion).—(1) The absence of passion; (2) a voluntarily sustained control of feeling checking its natural rise, or its continued experience; (3) indifference to the higher motives which should govern action; moral inertia—lack of energy. Kant's *Ethics*, Abbot's Tr., 319.

According to the Stoics, *apathy* meant the extinction, or, at least, severe restriction, of the passions by ascendancy of reason, under the demands of their austere rule of life. "Those demands, developed to their legitimate consequences, require the unconditional extirpation of the whole sensuous nature, an extirpation which was originally expressed by the much vaunted apathy." Zeller's *Stoics, &c.*, transl., p. 273.

"By the perfect *apathy* which that philosophy (the Stoic) prescribes to us, by endeavouring not merely to moderate but to eradicate, all our private, partial, and selfish affections, by suffering us to feel for whatever can befall ourselves, our friends, our country, not even the sympathetic and reduced passions of the impartial spectator,—it endeavours to render us altogether indifferent and unconcerned in the success or mis-carriage of everything which nature has prescribed to us as the proper business and occupation of our lives." Smith, *Theory of Moral Sentiments*, pt. vii. sec. 2. There has, however, probably been an exaggeration of the actual teaching of the Stoics in this relation. See Zeller, *Hist. of Greek Phil.*, Stoics, Epicureans, and Sceptics, Eng. transl., p. 273; Ueberweg, *Hist. of Phil.*, i. 198. Benn, *Greek Philosophers*, vol. ii. 20.

APHASIA.—Loss of the power of speech, under a morbid condition of brain, while intelligence remains active. Consequent on a local disturbance of the cerebrum, generally held to be localised about the middle of the left hemisphere, there is diminished range in use of language. While intelligence is acting normally, language is lost, sometimes altogether, in other cases partially. In the latter form, there is in some instances loss of proper names; in others, the speaker is at a loss for names of things. M. Broca, *Clinique Medicale*, ch. iv; “Proceedings of Anatomical Society,” Paris, 1861; *On Aphasia, or Loss of Speech*, by Frederic Bateman, M.D., 2nd ed.; Foster, *Physiol.*, 5th ed., 1053; Ferrier, *Functions of the Brain*, 2nd ed., 444; Wundt, *Physiologische Psychologie*, 3rd ed., 238; Grainger Stewart, *Diseases of the Nervous System*; Calderwood, *Mind and Brain*, 388; Ladd, *Physiological Psychology*, 291; James, *Text-book of Psychology*, 108; Sully, *Human Mind*, 311.

APHORISM (ἀφορίζω, to bound or limit).—A precise, sententious saying.

Heraclitus is known by his *aphorisms*. Bacon says:—“The first and most ancient inquirers into truth were wont to throw their knowledge into *aphorisms*, or short, scattered, unmethodical sentences.” *Nov. Organ.*, bk. i. sec. 86. The *Novum Organum* itself is written in *aphorisms*.

APODEICTIC (ἀποδεικνυμι, to show).—Self-evident, without demonstration, beyond contradiction, standing in contrast with DIALECTIC.

This term was borrowed by Kant from Aristotle, *Analyt. Prior.*, lib. i. cap. 1, who, restricting the work of demonstration, made a distinction between propositions which admitted of contradiction or of dialectic discussion, and such as were either the basis or the result of demonstration. Kant introduced an analogous distinction between our judgments, giving the name of apodeictic to such as were above all contradiction, or were *necessary* and *universal*.

It is a necessary condition of every cognition that is to be established upon *a priori* grounds, that it shall be held to be absolutely necessary; much more is this the case with an attempt . . . to furnish the standard . . . of all apodeictic

philosophic certitude." Pref. to First ed. of *Pure Reason*, transl., xxi.

Thus, referring to "the principle of contradiction" as the "universal and fully sufficient principle of all analytic cognition," Kant speaks of its "apodeictic certainty, which ought to be self-evident from the proposition itself." *Pure Reason*, Meiklejohn's Tr., 116. And in reference to the moral law, he says—"The Categorical Imperative, which declares an action to be objectively necessary in itself, without reference to any purpose, that is, without any other end, is valid as an apodeictic practical principle." Abbot's *Kant*, 45; *Groundwork*, ch. ii.

Thus, "*apodeictic* knowledge deals with the universal and necessary, that which is now and always, that which cannot be other than it is, that which is what it is simply through its own nature. It is the expression of the true universal in thought and things, τὸ καθόλου." Adamson, "Logic," *Encyc. Brit.*, 9th ed.

APPEARANCE (German, *Erscheinung*).—That which seems to the senses in contrast with that which is verified. *Phenomenon*, in contrast with fact. The distinction between reality and appearance is as old as philosophy. It is recognised in the Eleatic and Heraclitic distinction of Being and Becoming, in Plato's distinction between the one and the many, the idea or essence, and the sensible thing which is its shadow. Aristotle, on the other hand, finds the essence in the appearance, the one in the many, the ideal in the sensible. The distinction reappears in modern philosophy, in Locke's contrast between *substance* or *substratum*, and the qualities which it underlies, and in Kant's contrast between the *Thing-in-itself*, the Noumenon, and the Phenomenon. Hegel identifies Essence and Appearance, finding in the latter the manifestation of the former.

APPERCEPTION, that which goes with, or is added to, perception of the external. (1) Consciousness; (2) Knowledge of Self involved in consciousness, as distinguished from knowledge of the modifications in consciousness; (3) association, without which our perception of the thing would not be as it is; combination of variety in a single exercise.

“The transient state which includes and represents the manifold in unity or in a simple substance,” Leibnitz would call *perception*, “which ought to be distinguished from Apperception or Consciousness,”—“de l’apperception ou de la conscience.” Leibnitz, *La Monadologie*, sec. 14; *Leibnitii Op. Phil.*, Erdmann, lxxxviii. 706. On the French use of *conscience*, see Stewart’s *Philosophical Essays*, Essay i., introd. notes, *Works*, v. 56.

Kant, using *Bewusstseyn* for consciousness, reserves the term Apperception for consciousness of Self, and thereafter distinguishes between Empirical and Transcendental Apperception. “The consciousness of oneself, according to the determinations of our state, is, with all our internal perceptions, empirical only, and always transient. There can be no fixed or permanent self in that stream of internal phenomena. It is generally called the internal sense, or the *Empirical Apperception*.” Kant, *Critique of Pure Reason*, Transc. Anal., bk. i. ch. ii. secs. 2, 3; Max Müller’s transl., ii. 94. With this is to be connected Transcendental Apperception. “It must be possible that the *I think* should accompany all my representations; for otherwise something would be represented within me that could not be thought. . . . That representation which can be given before all thought, is called *intuition*, and all the manifold of intuition has therefore a necessary relation to the *I think* in the same subject in which that manifold of intuition is formed. That representation, however, is an act of *spontaneity*, that is, it cannot be considered as belonging to sensibility. I call it *pure apperception*, in order to distinguish it from empirical apperception, or *original apperception*.” *Critique of Pure Reason*, Transc. Anal.; Werke, ed. Rosencranz, vol. ii. suppl. 14. So given in ed. Max Müller, i. 434. Meiklejohn places it in text, p. 81. “The unity of apperception I call also the transcendental unity of self-consciousness, to indicate that upon it depends the possibility of a *priori* knowledge.”

Cousin employs the term as equivalent to consciousness, saying that “the phenomenon of consciousness is given by an immediate apperception (par une aperception immediate) which attains it and knows it directly.” *History of Philosophy in the*

Eighteenth Century, lect. xxiv.; *Cours de l'Hist. de la Phil.*, ii. 441, 1829; Wight's transl., ii. 314; Henry's transl., *Elements of Psychology*, p. 277. "The special characteristic of all knowledge of consciousness is directness and immediateness." "But it is not with the Self, as with the sensation, volition, or thought the understanding is provided with the principle,—that every phenomenon supposes a being this is the principle by which Self or personality is revealed; I say revealed, for Self does not fall under the immediate apperception of consciousness." See also, appendix and preface to *Philosophical Fragments*. Ferrier's *Institutes of Metaphysic*.

According to more recent usage, apperception has been taken to signify the testing of new sensations or ideas, by the mass of ideas already in the mind. Herbart, *Psychol. als Wissenschaft*, § 125. Steinthal, *Einleitung in die Psychologie*, p. 171. In order that the thing may be perceived, there are apperceived masses of ideas by use of which it is judged. The process is thus "apperceptive." James' *Text-Book of Philosophy*, 326.

Wundt regards consciousness as essentially apperceptive, holding that all its changes, and the relativity of its contents are determined by an inner activity, distinct from the forms of changing experience. This apperceptive function specially characterises voluntary attention. Wundt, *Physiologische Psychologie*, passim; criticised by Münsterberg, *Beiträge zur Experimentellen Psychologie*, Heft I.

APPETITE.—Physical craving, accompanied with uneasy sensation. Appetites are classified under Desires. The word *appetitus*, from which appetite is derived, is applied by Roman authors to desire in general. Thus Cicero observes, "*Motus animorum duplices sunt; alteri, cogitationis; alteri, appetitus. Cogitatio in vero exquirendo maxim eversatur; appetitus impellit ad agendum.*"

"Appetite implies a direct simple tendency towards such and such objects, without distinction of the means by which they are to be attained." Butler on *Human Nature*, Sermon ii.

"Appetites, considered in themselves, are neither social principles of action, nor selfish. They cannot be called social, because they imply no concern for the good of others, nor can

they justly be called selfish, though they be commonly referred to that class. An appetite draws us to a certain object, without regard to its being good for us or ill. There is no self-love implied in it, any more than benevolence." Reid, *Active Powers*, essay iii. pt. ii. ch. i.; Hamilton's ed., p. 553; see also Stewart, *Active Powers*, bk. i. ch. i.; Hamilton's ed., vi. 127; Cogan, *On the Passions*, i. 15. Sully, *Human Mind*, ii. 17.

APPREHENSION (*apprehendo*, to lay hold of).—Simple cognition,—knowledge of fact, simple or complex. "By simple apprehension, we mean the power which the mind possesses of forming concepts." Morell, *Mental Philosophy*, p. 232.

Apprehension in Logic, is that act or condition of the mind in which it receives a notion of any object; and which is analogous to the perception of the senses. Whately, *Logic*, bk. ii. ch. i. sec. 1.

"*Apprehension* (Die Apprehension), is the Kantian word for perception, in the largest sense in which we employ that term. It is the genus which includes under it, as species, perception proper and sensation proper." Meiklejohn's note, p. 127 of Kant's *Pure Reason*. "Apprehension by means of sensation alone, fills only one moment, that is, if I do not take into consideration a succession of many sensations . . . Apprehension is only a placing together of the manifold of empirical intuition." *Ib.* 127, 133.

"We apprehend many truths which we do not comprehend." Thus we say, God is incomprehensible, for we cannot compass the infinite.

"If He were not so, He would not be God, or the being that comprehended him would be God also. But it also belongs to the idea of God that He may be '*apprehended*,' though not '*comprehended*' by His reasonable creatures; He has made them to know Him, though not to know Him all, to '*apprehend*' though not to '*comprehend*' 'Him.'" Trench, *On Study of Words*, p. 110.

APPROBATION (Moral). The affirmation of harmony with moral law, whether applied to an action, or to an agent. A judgment that an action is *right*, is attended with a feeling favourable to the agent. In some cases the feeling predomi-

nates ; in others the judgment is more prominent. The term applies more properly to the moral agent, whether self or another. It is a judgment of commendation on account of well-doing. Fleming's *Manual of Moral Philosophy*, p. 102 ; Reid, *Active Powers*, essay v. ch. vii. ; Calderwood's *Handbook of Moral Philosophy*, p. 28. Such a judgment is referred by Butler to the Conscience, which, he says, "without being consulted" "approves or condemns." "Upon Human Nature," *Sermon ii.*

A PRIORI.—From that which is prior, either as a condition of thought, or as a condition of existence—logically or chronologically. The term is applied to forms of reasoning,—to conditions of intelligence,—and to a distinct class of truths. 1. The *a priori* arguments for the being of God,—Clarke and Gillespie. 2. The *a priori* forms of the understanding,—Kant. 3. The innate ideas of the rational nature,—Descartes ; Reasoning (1) from cause to effect (Aristotle) ; (2) from first truths, self-evident ; (3) from the forms of cognition which are independent of experience (Kant).

As applied within the realm of *Knowledge* itself, *a priori* truths are such as are known immediately, and not by inference from experience. These are recognised by the Intuitionist School as necessary truths, true in themselves, self-evidently true to every mind ; and as data for attaining a wider range of truth, by interpretation of experience in accordance with them. Of such truths, the principle of Non-contradiction, the law of Causality, and the duty of Benevolence, are examples. The Intuitionist School does not regard such truths as lying on the surface of consciousness, like bits of wood floating in the eddy, to be carried down by the stream. They are not stored in recesses of the mind, to be mechanically caught up, and carried forward to suitable position ; but truths evolved in process of the mind's activity, while dealing with the facts of experience. The balance of experience is, in this view, constituted by sensibility as the prius of experience, and by necessary truth as the prius of interpretation of existence, knowledge is the union of these two. There is no *a priori* knowledge of things ; there are only *a priori* conditions of thought, essential for attainment of knowledge.

Kant says:—"By knowledge *a priori*, we understand not such as is independent of this or that kind of experience, but such as is absolutely so of *all* experience. Opposed to this is empirical knowledge, or that which is possible only *a posteriori*, that is, through experience. Knowledge *a priori* is either pure or impure. Pure knowledge *a priori* is that with which no empirical element is mixed up. For example, the proposition 'Every change has a cause,' is a proposition *a priori*, but impure, because change is a conception which can only be derived from experience." *Pure Reason*, intro., sec. 1.

"It must be noticed that the term *a priori* has undergone important changes of meaning. In Aristotle's philosophy, the general truth is 'naturally prior' (*πρότερον τῇ φύσει*) to the particular, and the cause to the effect; but since we know the particular before the universal, and the effect before we seek the cause, the particular and the effect are each prior in respect to us (*πρότερον πρὸς ἡμᾶς*)." *Anal. Post.*, i. 2; *Top.*, vi. 4; *Metaph.* v. (Δ), xi. 1018, ed. Berol; Thomson's *Outlines of the Laws of Thought*, 3rd ed., p. 68.

A priori is "the common ground of all consciousness of objects." Caird's *Philos. of Kant*, i. 19. This is now the accepted usage. Cousin's *True, Beautiful, and Good*. "The existence of Principles," Lects. i. ii. iii., Schopenhauer, *The World as Will and Idea*, Haldane and Kemp's transl., i. 201. His criticism of Kant's Philosophy, *Ib.* iii.; Lotze's *Logic*, transl., § 357 and § 358. For a brief exposition of Kant, Schwegler's *History of Philosophy*, Stirling, 217-226.

ARCHETYPE (*ἀρχή*, first or chief; and *τύπος*, form).—A model or original form. "There were other objects of the mind, universal, eternal, immutable, which they called intelligible ideas, all originally contained in one *archetypal* mind or understanding, and from thence participated by inferior minds or souls." Cudworth, *Intell. Syst.*, p. 387.

"There is an absolute beauty, and an absolute good, and of other things to which the term 'many' is applied, there is an absolute; for they may be brought under a single idea, called the essence of each." Plato's *Republic*, vi. 507, Jowett's Tr.

"Would a painter be any the worse, because, after having

delineated with consummate art an ideal of a perfectly beautiful man, he was unable to show that any such man could ever have existed?" *Ib.* v. 472.

"There is truth as well as poetry in the Platonic idea of things being formed after the original *archetypes*. But we hold that these *archetypes* are not uncreated, as Plato seems to suppose; we maintain that they have no necessary or independent existence, but that they are the product of Divine wisdom." M'Cosh, *Meth. of Div. Gov.*, bk. ii. ch. i. sec. 4.

ARCHITECTONIC.—"By the term *Architectonic*, I mean the art of constructing a system." Kant's *Critique of Pure Reason*, Meiklejohn's Tr. 503; Max Müller's Tr. ii. 714. "Human reason is by nature architectonic" Meiklejohn's transl., 297. Kant proposes "to sketch the plan of the *Architectonic* of all cognition given by *pure reason*," adding that, by Reason he understands "the whole higher faculty of cognition, the *rational* placed in contradistinction to the *empirical*."

ARGUMENT (*arguo*, from ἀργός, clear, manifest).—The act of reasoning; procedure towards truth by inference.

The term *argument* in ordinary discourse has several meanings:—(1) it is used for the premises in contradiction to the conclusion, e.g., "the conclusion which this *argument* is intended to establish is," &c.; (2) it denotes what is a *course* or *series* of *arguments*, as when it is applied to an entire dissertation; (3) sometimes a *disputation* or *two trains* of *argument* opposed to each other; (4) lastly, the *various forms* of *stating* an *argument* are sometimes spoken of as different kinds of *argument*, as if the same *argument* were not capable of being stated in various ways. Whately, *Logic*, app. i.

"In technical propriety *argument* cannot be used for *argumentation*, as Dr Whately thinks, but exclusively for its middle term. In this meaning, the word (though not with uniform consistency) was employed by Cicero, Quintilian, Boethius, &c.; it was thus subsequently used by the Latin Aristotelians, from whom it passed even to the Ramists; and this is the meaning which the expression always first, and most naturally, suggests to a logician." Hamilton, *Discussions*, p. 147.

In this sense the *discovery* of *arguments* means the discovery of middle terms.

Argument (The Indirect).—It is opposed to the Ostensive or Direct. Of *Indirect arguments* several kinds are enumerated by logicians :—

Argumentum ad hominem, an appeal to the principles or consistency of an opponent.

Argumentum ex concessio, a proof derived from some truth already admitted.

Argumentum a fortiori (*q.v.*).

Argumentum ad iudicium, an appeal to the common sense of mankind.

Argumentum ad verecundiam, an appeal to our reverence for some respected authority.

Argumentum ad populum, an appeal to the passions and prejudices of the multitude.

Argumentum ad ignorantiam, an argument founded on the ignorance of an adversary.

Argumentum per impossibile, or **Reductio ad absurdum**, the proof of a conclusion derived from the absurdity of a contradictory supposition.

These arguments are called *Indirect*, because the conclusion that is established is not the absolute and general one in question, but some other relative and particular conclusion, to be admitted in order to maintain consistency. The *Reductio ad absurdum* is the form of argument which more particularly comes under this denomination. This mode of reasoning is much employed in geometry, where, instead of demonstrating what is asserted, everything that contradicts the assertion is shown to be absurd. For, if everything which contradicts a proposition is unthinkable, the proposition itself must be accepted as true.

ARGUMENTATION is opposed to intuition and consciousness. It is used by Price as synonymous with deduction. *Review*, ch. v.

“*Argumentationis nomine tota disputatio ipsa comprehenditur, constans ex argumento et argumenti confutatione*” (Cicero).

ART (Latin *ars*, from Greek ἀρετή, excellence or skill ;

“usually referred to *ἄρω*, *apto*,” White).—(1) Skill in practice ; (2) more generally, skill in giving embodiment or representation to the ideal.

Art is defined by Lord Bacon to be “a proper disposal of the things of nature by human thought and experience, so as to make them answer the designs and uses of mankind.” On the distinction between Science and Art, see Stewart, *Works*, ii. 36, Hamilton’s edition ; Whewell, *Phil. of Induct. Sci.*, aph. 25 ; Thomson, *Outline of Laws of Thought*, p. 16, 2nd ed. ; p. 13, 3rd ed. ; Harris, *Dialogue on Art*.

The difference between *art* and *science* is regarded as merely verbal by Hamilton, *Edin. Rev.*, No. 115 ; for contrary view see preface of St Hilaire’s translation of the *Organon*, p. 12 ; Whewell, *Phil. of Induct. Sci.*, pt. ii. bk. ii. ch. viii.

“The Philosophy of Art is the interpretation of the principles of beauty in Nature, and of the rules in accordance with which ideal beauty may find expression at the hands of a competent artist.” Kant’s *Kritik der ästhetischen Urtheilskraft*, Werke, ed. Rosencranz, iv. ; Kant’s *Kritik of Judgment*, transl. Bernard, pt. i. ; Hegel’s *Aesthetik*, Werke, ed. Michelet, x.

“*Art* is the free reproduction of . . . ideal beauty, as the human imagination conceives it, by the aid of data which nature furnishes. . . . The *Ideal* is the mysterious ladder which enables the soul to ascend from the finite to the Infinite.” Cousin’s *True, Beautiful, and Good*, lect. ix. The method in which the Beautiful can be studied, *Ib.* lect. vi. “The true method makes setting out from man the condition for arriving at things, which are a law for us.”

Art implies “Invention, Composition, and Expression.” “The great end of the *art* is to strike the imagination.” The artist “makes out an abstract idea of the form of things, more perfect than any one original ; and, what may seem a paradox, he learns to design naturally by drawing his figures unlike to any one object. This idea of the perfect state of nature, which the artist calls the Ideal Beauty, is the great leading principle by which works of genius are conducted. . . . This is the idea which has acquired, and seems to have a right to, the epithet of *divine* ; as it may be said to preside, like a supreme

judge, over all the productions of nature ; appearing to be possessed of the will and intention of the Creator, as far as they regard the external forms of living beings." Sir Joshua Reynolds, *Discourses*, discourse iii.

As to execution, "Liberty must move, under necessary control, with perfect, untormented serenity of ease." Ruskin, *The Cestus of Aglaia*, chap. vi.

ASCETICISM (*ἀσκησις*, exercise, training).—Practice of rigid self-denial, avowedly for the attainment of a higher moral life. The exercise of severe virtue among the Pythagoreans and Stoics involved abstinence from natural pleasures, as a discipline of the soul. "This name may be applied to every system which teaches man not to govern his wants by subordinating them to reason and the law of duty, but to stifle them entirely, or at least to resist them as much as he can ; and these are not only the wants of the body, but still more those of the heart, the imagination, and the mind." *Dict. des. Sci. Phil.*

Abstinence was inculcated by ancient moralists, in order to make the soul more independent of the body. The *σωφροσύνη* of Socrates, essential to a virtuous life, was a love of self-control, involving readiness for self-denial. Xenophon's *Memorabilia*, iv. 3, 1. The Stoics, however, regarded pleasure as irrational excitement, and counselled abstinence from it. Diog. Laert., bk. vii., *Zeno* ; Zeller's *Stoics*, &c., Reichel's Tr., 229.

ASSERTORY (*Assertorische*), applied to propositions, as Affirmative of objective reality.—*Judgments* have been distinguished into *problematic*, *assertory*, and *apodeictic*. "The *problematic* is that which expresses logical possibility only. . . . The *assertory*, logical reality or truth. . . . The *apodeictic* represents the assertory as determined by the very laws of the understanding, and therefore as asserting *a priori*, thus expressing logical necessity." Kant's *Kritik der reinen Vernunft*, Transc. Anal., bk. i. ch. i. sec. 3 ; Max Müller's transl., ii. 67 ; Meiklejohn's, p. 61. To this threefold distribution Kant adds the following note :—"Just as if Thought were in the first instance a function of the Understanding, in the second of the Judgment, and in the third of the Reason." Werke, ii. 75.

ASSOCIATION (*associo*, to accompany).—Laws of mental combinations which facilitate recollection—commonly called “Association of Ideas.” “The law of *association* is this—That empirical ideas, which often follow each other, create a habit in the mind, whenever the one is produced, for the other always to follow.” Kant, *Anthropologie*, p. 182. Such association belongs to the spontaneity of conscious activity, aiding accumulation of Knowledge. The philosophy which traces all knowledge to Experience regards Association as a means of developing higher powers, contemplating masses of ideas as if they were intellectual forces.

The laws of association, as commonly stated, are these :—(1) Similarity ; (2) Contiguity ; (3) Repetition. Mental phenomena, similar, correlated, or often occurring together, recall each other. The bond becomes stronger as the relation in consciousness recurs. These laws presuppose discrimination as a power of mind. Spencer seems to suggest the possibility of Association independently of Intelligence. “Feelings cohere in unlike degrees in different tracts of consciousness.” He speaks of the “Associability of feelings.” *Principles of Psychol.*, i. p. 228, and p. 250. J. S. Mill, *Examination of Hamilton*, 3rd ed., p. 220, reasons as if there were a “chemistry of ideas,” —“the fusing of different elements.”

Locke, *Essay*, bk. ii. ch. xxiii. ; bk. ii. ch. xxxiii. sec. 5 ; Hume, *Essays*, essay iii. ; Hartley, *Observations on Man* ; Reid, *Intellectual Powers*, essay iv. ; Stewart, *Elements*, vol. ii. ch. v. ; Brown, *Lectures*, lect. xxxiii. ; Hamilton's *Reid*, notes D** and D***, p. 889 ; Hamilton's *Lectures on Metaphysics*, ii. 223 ; Herbert Spencer, *Principles of Psychology*, i. 228 ; Bain's *Senses and Intellect*, 2nd ed., p. 327 ; Wundt's *Physiologische Psychologie*. On the associative process,—James, *Psychology*, c. xiv., *Text-Book of Psychol.*, ch. xvi. ; Ward, “Psychology,” *Encyc. Brit.*, 9th ed. ; Münsterberg, *Beiträge zur Experimentellen Psychologie*, Heft. I., p. 123. On the bearing of association on evolution of rational power,—J. S. Mill's *Examination of Hamilton*, ch. xi. ; Herbert Spencer's *First Principles*, “The Knowable.” Bradley deals with “the fictitious nature of the Laws of Association as they have been handed down by our prevalent

tradition," *Logic*, 273. "Things are not associated by their own necessity, and by virtue of some internal connection," *ib.* On "Association, and the Origin of Moral Ideas," Flint, *Mind*, i. 321. Calderwood's *Handbook of Moral Philosophy*, pp. 98-122; and "Evolution and Man's Place in Nature," ch. vi. See a careful discussion of the questions of Association in Höffding's *Outlines of Psychology*, transl. Lowndes, pp. 151-159; James, *Text-Book of Psychology*, ch. 16; Sully's *Human Mind*, I. 305.

ASSUMPTION (*assumo*, to take for granted).—An accepted premiss from which an inquiry or argument begins; or, the subordinate premiss, connected with the more general.

Of premisses, that which is taken universally is called the *proposition*, that which is less universal and comes into the mind secondarily is called the *assumption*. Trendelenburg, *Notæ in Arist.*

The *assumption* is thus the minor proposition in a syllogism, the major being named in contrast the *presumption*. The terms more commonly in use are, *sumption*, and *subsumption*.

ATHEISM (*a*, priv.; and *θεός*, God).—The doctrine that there is no God. The term is properly applied to every theory of the universe which does not postulate an Intelligent First Cause.

Under this title falls to be included the theory which seeks to account for existence by reference to matter and motion, first attributed to Diagoras of Melos. Ueberweg's *History*, i. 80; Schwegler, p. 26; and the early elemental theories of Thales, Anaximenes, and Heraclitus.

Socrates repudiated the charge of Atheism brought against him, declaring his obedience throughout life to the will of the Deity. Socrates asks his accuser, Melitus, whether his charge was only that he did not believe in the same gods as his fellow-citizens: when Melitus says that he is a complete Atheist, Socrates replies that this is "not believed even by himself." *Apology*, 26.

Plato urges that what is to be dreaded is not Atheism, but false representations of God. *Republic*, ii. 380. Treating of Atheism, Plato says:—"There have always been persons, more

or less numerous, who have had this same disorder, *ταύτην τὴν νόσον*. I have known many of them, and can tell you this, that no one who had taken up in youth this opinion, that the gods do not exist, ever continued in the same until he was old." *Laws*, x. 888 ; Jowett's *Plato*, 1st ed., iv. 398.

Atheism has often been erroneously charged against theories antagonistic to current belief. This charge has been wrongly brought against Spinoza, as if his saying "God is all" were equivalent to "God is not"; against the Evolutionist, as if explanation of the appearance of species by natural law were equivalent to denial of the Supernatural; against the Free-thinker, as if criticism of cherished beliefs were a denial of faith itself; against Agnosticism, as if proclamation of ignorance were equivalent to certainty that Nature is all. Evolution leaves untouched the question of the origin of life. Mr Darwin says:—"There is grandeur in this view of life, with its several powers, having been originally breathed by the Creator into a few forms, or into one; and that whilst the planet has gone cycling on according to the fixed law of gravity, from so simple a beginning, endless forms, most beautiful and most wonderful, have been and are being evolved." *Origin of Species*, p. 577.

See Flint's *Anti-Theistic Theories*.

ATOMIC THEORY (*a*, priv.; and *τέμνω*, to cut,—that which cannot be divided, an atom). The theory of the universe which traces its origin to primitive indivisible and impenetrable particles of matter, differing in form and in their relations to each other.

"The Atomic theory of matter is the hypothesis that each sensible form (a crystal, drop, or breath of air) is made up of homœomeric parts, not essentially indivisible, but indivisible by such forces as are competent to the division of their aggregates. These parts are called particles, molecules, atoms; the last name being objectionable on account of its etymology, but the most convenient when used as a name, without reference to its derivation." Samuel Brown's *Lectures on Atomic Theory*, *Lects. and Essays*, i. 15.

The Ancient Greek Atomism was represented by Leucippus and Democritus. "The Atomists derived all phenomenal

specific quality from a primeval infinitude of original constituents, which, alike in quality, were unlike in quantity. Their atoms are immutable material particles, extended but indivisible, and differing from each other only in size, shape, and weight." Schwegler's *Hist. of Philos.*, 25 ; Burnet's *Early Greek Philosophy*, 350. For the theory of Epicurus, see Zeller's *Stoics, Epicureans, and Sceptics*, 415. The Roman Atomism is represented by Lucretius, *De Rerum Natura* ; Sellar's *Roman Poets of the Republic*, c. xii. p. 300.

Note by Professor Crum Brown, M.D., Professor of Chemistry in the University of Edinburgh :—“There are many phenomena which cannot be explained without the assumption of what Lord Kelvin calls a ‘grained structure’ of matter. The modern molecular theory assumes the existence of discrete particles of matter, and thence deduces consequences which practically coincide with the observed properties of matter.

“The molecules, or ultimate particles of a compound substance, must, of course, be themselves compound, and are assumed to be composed of atoms. The molecules of elementary substances may either *be* atoms, or be composed each of several atoms precisely similar to one another.

“Chemical investigation gives us the *ratios* of the masses of the atoms of the elements ; and physical investigation, especially on the properties of gases, has led to approximations to the *absolute* size and mass of the molecules, and in some cases also to the number of atoms in a molecule. Thus the *molecule* of gaseous hydrogen consists of two atoms of hydrogen, while the *molecule* of mercury vapour is a single *atom*.”

Ueberweg's *History*, i., Leucippus and Democritus, p. 67, Epicurus, p. 205 ; Schwegler's *History*, pp. 25, 26 ; Lucretius, p. 138 ; Cudworth's *Intellectual System*, bk. i. ch. i. sec. 18 ; Stewart's *Active Powers*, vol. ii. note A, *Works*, vii. 369.

Modern Theories. Dalton's *Atomic Chemical Theory* ; Samuel Brown's *Lects. and Essays*, vol. i. On the size of Atoms, Thomson (Lord Kelvin), *Nature*, vol. xxviii. 203. On the ultimate nature of matter, Tait's *Recent Advances in Physical Science*, ch. xii. 283 ; Lange's *Hist. of Materialism*,

bk. i. sec. i. c. i.; *Hist. of the Atomic Notion*, bk. ii. sec. 2, ch. 2. Articles "Atom" and "Molecule."—*Encyclopædia Brit.*, 9th edition.

ATROPHY (ἄ τροφος, taking no food, pining away).—Arrest in development of an organ, such as may arise from its disuse. The process of *atrophy* may result in disappearance of the organ altogether. This is illustrated in the history of many animals. Wallace's *Darwinism*, 121; Lankester's *Advancement of Science*, 26.

ATTENTION (*attendo*, to hold an object before one, to stretch towards it).—Concentrated observation; voluntary directing of the energy of the mind towards an object. Carpenter's *Mental Physiology*, c. iii.; Ward, "Psychology," *Encyc. Brit.*, 9th ed.; James, *Psychol.*, c. xi., *Text-Book*, c. xiii.; Sully, *Human Mind*, I. 141; Ladd, *Elements of physiol. Psychol.*, 480. See articles in *Mind*, xi. 305, xii. 314; Bradley, xii. 564; Ward, xvi. 23, Stout; Ribot's *Psychologie de l'Attention*.

ATTRIBUTE (*attribuo*, to ascribe).—Anything that can be predicated of another; a quality or property of any object; specially, a characteristic of the Divine nature.

"By this word *attribute* is meant something which is immovable and inseparable from the essence of its subject, as that which constitutes it, and which is thus opposed to *mode*." Descartes, Letter to Regius, *Prin. Phil.*, i. 57.

Spinoza, holding that there is but one substance, defines *attribute* as "that which the intellect perceives of substance as constituting its essence;" *mode* as "the modifications of substance, or that which exists in, and is perceived through, something other than itself." *Ethics*, pt. i. defins. 4 and 5.

"All the *attributes* of bodies which are classed under Quality and Quantity, are grounded on the sensations which we receive from these bodies, and may be defined, the powers which the bodies have of exciting those sensations." Mill's *Logic*, bk. i. ch. iii. sec. 6.

AUTHORITY.—(1) The influence allowed to common opinion; (2) the weight of testimony coming from those who are experts or specialists; (3) the imperative essential to moral law; (4) the power of constitutional rulers.

Authority is often placed in antithesis with evidence. It is then "the principle of adopting the belief of others, on a matter of opinion, without reference to the particular grounds on which the belief may rest." Sir G. C. Lewis, *On Authority in Matters of Opinion*, p. 6. Mill's *Logic*, bk. v. 1.

Authority, in its legitimate sense, consistent with a single regard to truth, expresses the value of testimony from eye-witnesses, and from those who have had special experience, or are possessed of special skill, or learning. It implies reliance on testimony, as we rely primarily on the laws of evidence.

Reason itself must rest at last upon authority; for the original data of reason do not rest upon reason, but are necessarily accepted by reason on the authority of what is beyond itself." Hamilton, *Reid's Works*, note A, sec. 5, p. 760.

"Of the grounds of Belief," Mill's *Logic*, bk. iii. c. 25; Martineau's *Seat of Authority in Religion*; "The Evolution of Belief," Arthur J. Balfour, *Defence of Philosophic Doubt*, pt. iii. c. 13.

AUTOMATON (αὐτόματον, that which moves of itself).—A self-acting machine. The term automatic is applied—(1) to any self-acting mechanism; (2) to the self-acting power of the muscular and nervous systems, by which movement is effected without intelligent determination and direction; (3) to processes in nature illustrating spontaneous action of energy. Aristotle's *Physics*, ii. 4, 6.

All reflex actions of the nerve system, and all muscular movements dependent on these, are automatic. Calderwood's *Relations of Mind and Brain*. "Neural machinery" is brought into action by sensory stimulus. In this relation, the question has been raised, Are not animals automata? Huxley has treated of this question in *Science and Culture*, 199. If we may regard organic action as automatic, the question arises, Is not human action, including "Ideation" itself, of this character; or is there intelligent action which cannot be attributed to neural machinery? On "the Automaton Theory," see James' *Principles of Psychology*, i. 128.

AUTONOMY (αὐτὸς, itself; νόμος, a law).—Autonomy of the will is Kant's phrase for the doctrine that the human will

is a law unto itself, or carries its guiding principle within itself. "Autonomy of Will is that quality of Will by which a Will (independently of an object willed) is a law to itself." *Metaphysics of Ethics*, Semple, 3rd ed., p. 55; Kant's *Theory of Ethics*, Abbot, 3rd ed., p. 59.

Kant's leading positions here are these:—"Reason is given to man as the governor of his Will, by its sway to constitute it altogether good" (Semple, 5); the notion Duty comprehends under it "that of a good Will, considered, however, as affected by certain inward hindrances" (7); Duty is the necessity of an act out of reverence felt for law" (11); the formula of "ideal legality" is this—"Act from a maxim at all times fit for law universal" (13); "ethical ideas have their origin and seat altogether *a priori* in the Reason" (23); a rational being "alone has the prerogative of acting according to the representation of laws, *i.e.*, according to principle, or has a Will" (25); "freedom of Will is autonomy, *i.e.*, that property of will by which it determines its own causality, and gives itself its own law" (58); "reason must have a causality of its own, adapted for determining the sensory according to its own principles" (74).

Autonomy is illustrated when the law of conduct is given by the Reason itself. How, then, are we to explain the bad sense in which a man is said to act as if he were a law to himself, rejecting the authority of moral law? And how shall we explain freedom, when passion is allowed to sway us; and when we plan methods for self-gratification?

AVERAGES.—Calculable proportions in view of the variety of conditions concerned in occurrences. This is described in Logic as the doctrine of Probabilities. Quetelet, *On Probabilities*, transl. Downes; De Morgan, "Treatise on the Theory of Probabilities;" *Cambridge Phil. Trans.*, 1838 and 1849; "Of the calculation of Chances," Mill's *Logic*, bk. iii. c. 18.

"Chance may be described as the amount of belief with which we expect one or other out of two or more uncertain events." Thomson's *Laws of Thought*, 3rd ed., p. 331.

As applicable to the occurrence of crime, as of accident,

Lotze says:—"As soon as we know that the general economy of the universe apparently requires yearly a certain average of crime, just as much as a certain average of temperature, we can hardly help seeing even in intellectual life the unbroken sequence of a blind mechanism." *Microcosmus*, translation, i. 25. How, then, do we harmonise the facts indicated, with a sphere of rational responsibility, if Duty be "the necessity of an act out of reverence felt for law"? What are the relations of Impulse to Rational control,—or, as Aristotle put it, of the rational to the irrational part in man's nature?

AXIOM (*ἀξίωμα*, from *ἀξίω*, to think worthy).—(1) A position of worth or authority, (2) the basis of demonstration, (3) a self-evident proposition.

"Philosophers give the name of *axioms* only to self-evident truths that are necessary, and are not limited to time and place, but must be true at all times and in all places." Reid, *Intellectual Powers*, essay ii. ch. xx.; Hamilton, *Reid's Works*, note A, sec. 5; Stewart, *Elements*, pt. ii. ch. i.

Aristotle applied the term to all self-evident principles, which are the grounds of all science. *Anal. Post.*, lib. i. ch. ii. 13 and ch. iii. 5, things immediate, *τὰ ἀμεσά*, which do not admit of proof. According to him they were all subordinate to the supreme condition of all demonstration, the principle of identity and contradiction. The Stoics, under the name of *axioms*, included every kind of general proposition, whether of necessary or contingent truth. In this sense the term is employed by Bacon, who, not satisfied with submitting *axioms* to the test of experience, has distinguished several kinds of *axioms*, some more general than others. *Novum Organum*, lib. i. aphor. xiii., xvii., xix., &c. Thus, Bacon says:—"There are but two ways of investigating and discovering truth. The one hurries on rapidly from the senses and particulars to the most general axioms. . . . The other constructs its axioms from the senses and particulars, by ascending continually and gradually, till it finally arrives at the most general axioms." Aph. xix. The Cartesians, in applying the methods of geometry to philosophy, followed Aristotelian usage.

"The *axioms*, as well those which are indemonstrable, as

those which admit of being demonstrated, differ from that other class of fundamental principles (of geometry) which are involved in the definitions, in this, that they are true without any mixture of hypothesis." Mill's *Logic*, bk. ii. c. 5.

BEAUTY.—Quality, or a harmony of qualities, awakening in us admiration. The *ideally* beautiful is aimed at by art; Intelligence presents an ideal, as the test of excellence. Plato identified the *beautiful* with the *good*, τὸ καλὸν καὶ ἀγαθόν; maintaining that a man is foolish who "seriously inclines to weigh the beautiful by any other standard." *Republic*, v. 452. Aristotle took the same position, but with more ethical regard. *Nic. Ethics*, i. 6.

The English moralists of the 18th century abound in references to moral beauty. "The mind which is the spectator or auditor of other minds, cannot be without its eye and ear, so as to discern proportion, distinguish sound, and scan each sentiment or thought which comes before it." Shaftesbury, *Concerning Virtue*, sec. 3. According to Hutcheson, the general foundation or occasion of the ideas of *beauty* is "*uniformity amidst variety*." *Inquiry concerning Beauty*, sec. 2.

"All the objects we call beautiful agree in two things, which seem to concur in our sense of *beauty*. (1) When they are perceived, or even imagined, they produce a certain agreeable emotion or feeling in the mind; and (2) this agreeable emotion is accompanied with an opinion or belief of their having some perfection or excellence belonging to them." Reid, *Intellectual Powers*, essay viii. ch. iv.

Berkeley, in his *Alciphron*, and Hume, in many parts of his works, made utility the foundation of *beauty*. Others have argued that the sense of the beautiful is determined mainly by association.

Kant says:—"The beautiful is that which, apart from concepts, is represented as the object of a universal satisfaction." *Kritik of Judgment*, div. i. § 6, transl. Bernard, 55. Or, it is "that which, through the harmony of its form with human faculty, awakens satisfaction." Schelling says:—"Beauty is "the Infinite finitely represented;" Hegel makes it "the Absolute in sensuous existence."

Stewart, *Active Powers*, i. 279; Smith, *Theory of Mor. Sent.*, pt. iv. ch. i.; Alison, *Essay on Taste*; Price, in his *Review of Principal Questions in Morals*, sec. 2; art. "Beauty" in the *Ency. Brit.*, 9th ed., by Lord Jeffrey; Kames, *Elements of Criticism*, vol. i. ch. iii.; Burke, *On the Sublime and Beautiful*; Reynold's *Discourses*; Ruskin's *Lectures on Art*; Knight's *Philos. of the Beautiful*.—*Vide* art. *ÆSTHETICS*.

BEING (τὸ ὄντως ὄν, the existing, as in contrast with τὰ ὄντα, existing things; *Ens*; German, *Seyn*).—(1) Existence; (2) in the antithesis of Thought and Being, that which is, in contrast to that which is thought; (3) within thought itself, the first and most general of the categories; (4) Being itself, involving the necessity of its being, The Absolute. "Pure Being, the common basis of existing things." Lotze's *Metaphysics*, transl. 31.

The whole range of Philosophy, from the beginning of its history, has been connected with Being and Becoming—the abiding and the fleeting. This appears in the system of Heraclitus, with its unity of being and not being, maintaining that all is in perpetual flux; of the Eleatics, notably Parmenides with the formula, only Being is, and becoming is not at all. The mystery of Being constitutes the grand problem of Metaphysics, involving the twofold problem, concerning the meaning of existence, and our powers of knowledge of Being.—*Vide* **ONTOLOGY**.

BELIEF (Fiducia, πίστις, Glaube).—(1) The recognition of the reality of an object which is neither present in consciousness, nor discovered by the senses; (2) the mind's assent to the truth of a proposition; (3) a state of intellectual acquiescence in the order of things, in contrast with scepticism.

"Holding for true . . . has the three following degrees:—Opinion, Belief, and Knowledge. Opinion is a consciously insufficient judgment, subjectively as well as objectively. *Belief* is subjectively sufficient, but is recognised as being objectively insufficient. Knowledge is both subjectively and objectively sufficient." Kant's *Critique of Pure Reason*, Doctrine of Method, Meiklejohn's Tr., p. 498; Max Müller's Tr., ii. 705.

"*Belief*, in contradistinction to knowledge, always ought to

indicate some case in which the objective evidence is incomplete, and of which the opposite does *not* imply either impossibility or absurdity. We cannot, accordingly, in propriety of language, say:—‘I *believe* I have a pen in my hand and a sheet of paper before me,’ or I *believe* that two and two make four, or I *believe* in my own existence or the law of gravitation. These are things which we *know*.” Morell, *Mental Philos.*, 325.

Hamilton says (Appendix to *Metaphysics*, ii. 530):—“The sphere of our belief is much more extensive than the sphere of our knowledge, and therefore when I deny that the Infinite can by us be *known*, I am far from denying that by us it is, must, and ought to be believed. In the order of nature, belief always precedes knowledge.” Hamilton, *Metaphysics*, i. 44; Jacobi, *On the system of Spinoza*, 1785; *David Hume über den Glauben, oder Idealismus und Realismus*, 1787.

“Belief consists in accepting the affirmations of the soul.” Emerson, *Representative Men*, “Montaigne.” “The human mind takes no account of geography, language, or legends, but in all utters the same instinct.” Emerson, “Immortality;” Bailey’s *Letters on Philos. of Human Mind; Formation of Opinions*; Grounds of Disbelief, Mill’s *Logic*, bk. iii. c. 25; Psychol. of Belief, W. James, *Psychol.*, c. xxi., *Mind*, xiv. 321; Article “Belief,” by Adamson, *Encyc. Brit.*, 9th ed.; Baldwin, *Hand-Book of Psychology*, pt. ii. c. vii.

BENEVOLENCE (*benevolentia*, *humanitas*, *φιλανθρωπία*, well-wishing), love to others; seeking their good for its own sake.

“There are as real and the same kind of indications in human nature, that we were made for society and to do good to our fellow-creatures, as that we were intended to take care of our own life, and health, and private good.” Butler, *On Human Nature*, sermon i. Disinterested Benevolence is maintained by the Intuitionist school generally.

The Happiness theory of morals, resting on the principle that “happiness is the only thing desirable,” has passed from the Egoistic basis to the Altruistic, taking as its maxim—“The

Greatest Happiness of the greatest number." This theory either assumes that its maxim *ought* to supply the rule of life, or makes the practical *power* of the maxim depend on the consideration that, in seeking the happiness of others, we secure our own.

According to earlier adherents of this school, our own good is the ultimate and only proper end of human actions, and when we do good to others it is done with a view to our own good. This is Self-regarding, or Egoistic Hedonism. Benevolent feeling, being as natural and spontaneous in rise as self-love, the question is, how far can it be subject of Ethical command? To this Kant replies:—"Love is a matter of feeling, not of will or volition, and I cannot love because I will to do so, still less because I ought (I cannot be necessitated to love); hence there is no such thing as a duty to love. *Benevolence*, however, (*amor benevolentiae*), as a mode of action, may be subject to a law of duty." Kant's *Ethics*, Abbot's Tr., p. 312. Duty does not command natural feeling, but governs its exercise and direction. It condemns selfish feeling, infliction of injury, and revenge; it requires that action, even when self-regarding, be beneficent in its wider effects.

As to "the influence of Christianity in the extension of practical beneficence," Sidgwick's *History of Ethics*, 119. "To do good in return for evil, to love your enemy, is a height of morality to which it may be doubted whether the social instincts would, by themselves, have ever led us. It is necessary that these instincts, together with sympathy, should have been highly cultivated and extended by the aid of reason, instruction, and the love or fear of God, before any such golden rule would ever be thought of and obeyed." Darwin, *Descent of Man*, 12mo, 113, note. For general references, see Happiness Theory.

BIOLOGY (*βίος*, life; *λόγος*, science).—The science of life—a general designation including all scientific investigation applicable to life, and to the relations of different orders of animate existence. The term Biology thus covers the whole range of Natural History and Physiology, including all inquiry concerned with the problem of Evolution. Natural History

stops short of the problem of the origin of life, an unsolved problem for science. All life is from life.

Whewell's *History of Scientific Ideas*; Huxley's *Elementary Biology*; Parker's *Zootomy*; Parker's *Elementary Biology*; Asa Gray's *Structural Botany*; Darwin's *Insectivorous Plants*; Lubbock's *Flowers and Insects*; Huxley's *Anatomy of Invertebrate Animals*; Claus and Sedgwick's *Zoology*; Owen's *Anatomy of Vertebrate and Invertebrate Animals*; Balfour's *Embryology*; Rutherford's *Physiology*; Carpenter's *Human Physiology*; Howe's *Atlas of Biology*.

The grand advance of modern biology has been gained by discovery of evidence for continuity of life, illustrated in progression from simpler forms. Progress has been by slowly advancing differentiation, with attendant expansion of function. The evidence for this is presented in distinct lines. In Palæontology (*παλαιός*, ancient; *ὄν*, being; *λόγος*, science), as included in Geology, supplying evidence of the relations of simpler forms to earlier strata. In Embryology, showing that all life originates in a fertilised egg, and that the higher forms of animal life, during embryonic development, pass through stages analogous with those of lower forms. In the inductions of Natural History, involving struggle for existence, survival of the fittest, and hereditary transmission.

Darwin's *Origin of Species*; Wallace's *Darwinism*; Herbert Spencer's *Principles of Biology*, 2 vols.; Eimer's *Organic Evolution*. For inclusion of man, Darwin's *Descent of Man*; Haeckel's *Evolution of Man*; Romanes' *Mental Evolution in Man*; Wiedersheim's *Bau des Menschen*. Against the sufficiency of this hypothesis, Wallace's *Darwinism*, ch. 15; Lloyd Morgan's *Animal Life and Intelligence*, ch. xii.; Calderwood's *Relations of Mind and Brain*, ch. xv.; and *Evolution and Man's Place in Nature*; Stirling, *Darwin and Darwinism*.

BODY.—(1) Material existence, whether organised or unorganised; (2) organised material being, in contrast with unorganised matter. Body is commonly living organism, involving the correlation of muscular and nerve systems.

1. Spinoza uses the word in extended signification. "By *Body* we understand a certain measure or quantity, having

length, breadth, and thickness, and bounded by a definite outline." *Ethics*, p. i. prop. xv., Scholium. According to Spinoza, God is *res extensa*.

"A *Body*, according to the received doctrine of modern metaphysicians, may be defined the external cause to which we ascribe our sensations. . . . The sensations are all of which I am directly conscious; but I consider them as produced by something, not only existing independently of my will, but external to my bodily organs and to my mind. This external something I call a *Body*." Mill, *Logic*, bk. i. ch. iii. sec. 7; Locke's *Essay*, bk. ii. c. 23.

2. The more restricted meaning involves the whole range of discussion concerned with the relations of "Mind and Body." Carpenter, *Mental Physiology*; Bain, *Mind and Body*; Maudsley, *Body and Mind*, and *Physiology of Mind*; Calderwood, *Relations of Mind and Brain*; Höffding, *Psychology*, c. ii.

BONUM (*ἀγαθός*, Good).—(1) The agreeable, all that pleurably affects sensitive organism; (2) in an ethical sense, the right in conduct; (3) the consummation of rational effort, in attainment of ideal life,—a perfect state, with true blessedness; the chief good,—*summum bonum*. Ancient ethical philosophy was largely moulded in forms suggested by "The Good," as desirable, or the end towards which action is directed; (4) The Absolute Good,—or perfect Being,—God,—The Platonic use. *Republic*, vi. 505–9. The Germans distinguish *das Gute*, good, from *das Wohl*, weal. "We express two quite distinct judgments when we consider in an action the good and evil of it, and our weal and woe." Kant's *Ethics*, Abbot, 150.

Aristotle, in the *Nicom. Ethics*, discusses the whole subject from the standpoint of the chief good, working towards an interpretation of happiness, as the blessedness found in the activity of a perfect life. For illustration of the same tendency during the Roman period, see Cicero's *De Finibus Bonorum et Malorum*.

Modern Ethical Philosophy seeks an objective standard of right as a first requisite.

The Experiential School keeps in closer relation with

ancient form, in taking Happiness as the one thing desirable. Mill's *Utilitarianism*; Sidgwick's *Methods of Ethics*, where see specially, bk. iii. ch. xiv., "The Summum Bonum." This direction belongs specially to the Ethics of Evolution. Spencer's *Data of Ethics*; Leslie Stephen's *Science of Ethics*, Simcox, *Natural Law, an Essay in Ethics*. For a general view of this course of thought, see Sorley's *Ethics of Naturalism*.

The modern Rational School regards rational law as given by the Reason. Kant is conspicuous as its leader, giving prominence to the Categorical Imperative, with its formula, "Act from a maxim at all times fit for law universal." The maxim or law stands first in thought, as the determinator and test of conduct. The end for the agent is thus determined by the law. Under this admission, Ethics may be regarded as a system of ends. The immediate end is right action; the more remote, perfection of character; the ultimate, the perfect activity of a perfect life.

"The relation of end to duty may be cogitated in a twofold manner,—either beginning with the end to assign the maxim, or beginning with the maxim to determine the end. . . . Jurisprudence advances by the first method. . . . But Moral Philosophy strikes into an opposite march: here we cannot commence with the ends he may design, and from them determine and formulate the maxims he has to take, *i.e.*, the duty he has to follow, for, in the latter event, the grounds of his maxim would be experiential, which we know beget no obligation, the idea of duty and its categorical imperative taking their rise in pure reason only." Kant's *Metaphysics of Ethics*, Semple, 3rd ed., p. 197. The "Summum Bonum," Abbot's Kant's Ethical Theory, *Practical Reason*, pt. i. bk. ii. ch. i. and ii. p. 202. Butler is the popular expounder of this theory from the standpoint of faculty. "The Supremacy of Conscience," Butler's Sermons, i., ii., iii. By the leaders of the Scottish School, "our Good on the whole" is discussed as a conception distinct from Duty. Reid's *Active Powers*, essay iii. pt. 3; Dugald Stewart's *Philos. of the Moral Powers*, bk. iv. sec. 1.

"The conception of the *summum* itself contains an ambiguity, . . . the *summum* may mean either the supreme

(*supremum*) or the perfect (*consummatum*). The former is that condition which is itself unconditioned, *i.e.*, is not subordinate to any other (*originarium*); the second is that which is not a part of a greater whole of the same kind (*perfectissimum*). . . . Virtue (as worthiness to be happy) is the *supreme condition* of all that can appear to us desirable, and consequently of all our personal happiness, and is therefore the supreme good. But it does not follow that it is the whole and perfect good as the object of the desires of rational finite beings; for this requires happiness also, and that not merely in the partial eyes of the person who makes himself an end, but even in the judgment of an impartial reason, which regards persons in general as ends in themselves." Kant's *Ethics*, Abbot, 3rd ed., p. 206.

Hegel, dealing with the Good as the dominant feature in a scheme of existence representing all as Dialectic Evolution, says,—“The Good is the Idea, as the unity of the conception of the universal will, and of the particular will.” *Philos. des Rechts*, § 129. “Happiness is not a Good without the Right; even so is the Right not the Good without Happiness,” § 130. For Hegel’s use of Idea, *vide* IDEA.

The British Neo-Hegelian, or Neo-Kantian School, as led by Green, accepting Hegel’s representation that “self-realisation” is “the most general expression for the End in itself,” makes the Ethical Object to be “a particular self-satisfaction.” Green’s *Prolegomena to Ethics*, 108; *cf.* 146. Bradley so far modifies this as to say, “The Act for me means my Act, and there is no end beyond the Act.” *Ethical Studies*, 59.

BRAIN.—The portion of the central nervous system which is inclosed within the cranium.

The human Brain consists of four main portions—the Medulla Oblongata, Pons Varolii, Cerebellum, and Cerebrum. These are all protected by three membranes (the Dura Mater, Pia Mater, and Arachnoid) which intervene between the nervous structures and the skull. Between the pia mater and the arachnoid there is a space (the sub-arachnoid space), which is occupied by the Cerebro-spinal fluid. This fluid, which is of a lymphatic nature, protects the substance of the brain from sudden shocks, and probably also (Foster) subserves its nutrition.

The brain-substance itself is of two kinds, "white matter," consisting of "medullated" nerve-fibres, and "grey matter," composed of nerve-cells and other nervous elements.

The circulatory system of the Brain consists of arteries which are derived from the two internal carotids and the two vertebral arteries, along with sinuses, of which there are fifteen; these sinuses are supplied from veins in the substance of the brain and in the scalp. The following points deserve notice:—

1. The network of capillaries by which blood passes into the substance of the brain is much more dense, and the blood-supply is proportionately greater in the grey than in the white matter of the brain.

2. The four arteries by which blood is supplied are unified in the base of the brain by a remarkable system of anastomoses, which constitute the "circle of Willis." Blood can pass along this circle in a variety of ways, so that the blood-supply of the brain is not necessarily interrupted by the stoppage of any one of the four channels.

3. Arteries enter the skull by a tortuous course, through bony channels, so that the force of the heart-beat is broken.

4. The venous sinuses, which are without valves, act as blood-reservoirs, and reduce the risk of pressure by the blood-supply on the brain-substance.

5. The supply of blood to the brain appears to be small in relation to the importance of the organ. ". the blood-supply of even the human brain must be small; and making every allowance for rapidity of current, the interchange between the blood and the nervous elements must also be small. In other words, the metabolism of the brain-substance is of importance, not so much on account of its quantity, as of its special qualities" (Foster).

The brain itself appears, at first sight, to be an oval mass of nervous substance. On further examination it proves to be (1) bilaterally almost symmetrical, and (2) composed of four distinct parts.

(1) The *medulla oblongata* lies under the cerebrum, and in front of the cerebellum. It is continuous with the spinal cord, which it serves to connect with the brain. In front of the

upper part of the medulla lies (2) the *Pons Varolii*, which connects the two sides of the cerebellum. Below the back part of the cerebrum, and partly separated from it by a fold of the dura mater (tentorium cerebelli) lies (3) the *cerebellum*. Occupying the upper part of the cranial cavity, and completely covering from above the other portions of the brain, we have (4) the *cerebrum*.

1. The Medulla Oblongata is continuous with and an expansion of the spinal cord. It is divided by anterior and posterior clefts into lateral segments. On its under side are "pyramidal" decussations, or crossings, of certain nerve-fibres, in front of which the "olivary body" projects. Behind, it is convex, but flattened in its upper part to form the floor of the 4th ventricle. It is about $1\frac{1}{4}$ inches long, 1 inch wide, and $\frac{1}{2}$ inch thick.

The most characteristic and important feature of the medulla is the decussation of fibres noticed above. The significance of this arrangement consists in the explanation which it affords of the fact that the left side of the brain controls the right side of the body, and *vice versa*.

The medulla oblongata is also important as the seat of those nervous centres which control the functions of organic life—inspiration, circulation, digestion, &c.

2. The Pons Varolii is a band of grey and white matter which connects the anterior surfaces of the two halves of the cerebellum. From its upper border spring the two crura or peduncles of the cerebrum.

3. The Cerebellum (Little Brain) consists of three parts—a central division (the vermiform process) lying between two hemispheres. The central part (which greatly preponderates in some mammals, and stands alone in birds, reptiles, and fishes) is clearly divided from the hemispheres.

The cerebellar hemispheres consist of crescent-shaped layers of grey matter, with a core of white lying horizontally and with thin convex edges backwards. They are grouped into lobes, but so vaguely that the division is of little importance. The upper surface of each hemisphere is concave; and the hemispheres are not separate on this surface. But, below, behind, and in front they lie apart. A fold of dura mater (falx cere-

belli) lies in the back part of the cleft between them. The cerebellum is connected by three pairs of peduncles to the pons, medulla, and cerebrum.

The special function of the cerebellum has been regarded by Flourens as the co-ordination of muscular movements, and by Ferrier as the co-ordination of the movements of equilibration. This latter view has been supported by a large number of experiments, and is further rendered probable by the anatomical relations which obtain between the cerebellum and the semi-circular canals.

4. The Cerebrum is far the largest and most important part of the human brain. It is partly divided, by a deep longitudinal cleft, into two nearly equal hemispheres, which are centrally united by a transverse band or commissure of nerve fibres—the corpus callosum. The cleft is occupied by a fold of *dura mater* (*falx cerebri*).

The outer surface of the cerebrum constitutes what is known as the cerebral cortex, which is composed of five layers or zones (Foster) of variously shaped nerve-cells. Within this covering of grey matter (which varies considerably in thickness in different parts of the surface) lie the peduncles of white matter—nerve-fibres. The extent of the surface, and consequently of the cortex, is greatly increased by the fact that the substance of the cerebrum (in the adult human being) is folded, so as to consist of “lobes” and “convolutions” divided from one another by fissures of various extent and depth.

The lobes are five in number. The Frontal lobe, occupying the front of the cranium, extends backwards about half way along the middle line, and is divided by the fissure of Rolando from the Parietal lobe. The Parietal lobe extends backwards from the fissure of Rolando to the Parieto-occipital fissure, which separates it from the Occipital lobe. Below, it is divided from the Temporo-sphenoidal lobe by the deep and important fissure of Sylvius. Deeply imbedded within this latter fissure, and not in contact with the cranial bones, nor forming any part of the external surface of the cerebrum, lies the Central lobe, or Isle of Reil.

Each of these lobes is divided into a number of convolutions, separated by less important, intra-lobular, fissures.

On the under surface of the cerebrum are the olfactory and optic nerves—the latter partly decussating in the optic commissure.

The Ventricles (four in number) constitute within the brain a cavity which represents the upper end of the primitive cerebro-spinal canal. They communicate with one another so as to form actually a single intra-cerebral cavity. What is called the fifth Ventricle is not continuous with these, and is not really a Ventricle, being distinct from the others both in origin and in character.

The point of chief interest to the student of philosophy or psychology, in connection with cerebral as distinct from other nervous structures, is their relation to mental life.

The fibres of the brain have not as a rule that distinctively efferent or afferent character which we find in other nerve-fibres.

The fibres seem to serve rather to connect with one another the cells in which nervous energy is stored than to convey impulses in a recognisably central or peripheral direction. We have, indeed, not so much a single organ, or aggregate of organs, as an organism related in infinitely complex ways to our bodily and mental states—an organism, especially, whose characteristic functions correspond with outward impressions and with modifications of our mental life.

What the character of this correspondence is, and in what details we can discover it, are problems to which students of physiology and psychology may turn their attention, without attempting any solution of the philosophical problem of the relation, in terms of which the correspondence must be explained.

The phrenological theory of Gall, which ascribed special mental "faculties," and these of a highly complex order, to circumscribed cerebral areas, is one which is too remote from the results, no less of psychology than of physiology, to be seriously entertained.

More recently, careful and serious investigations, in which

the results of clinical and pathological observations have been supplemented by experiment, have resulted in localisation of functions.

We can readily assure ourselves, to begin with, that in Man the functions of the cerebrum are related to intelligence and volition—to the co-ordination of sensory impressions and initiation of movements. Flourens maintained the indifferent employment of the whole cerebrum in every mental process. But since 1870 the experiments of Fritsch and Hitzig, and especially of Ferrier, have materially altered the position of the whole question, by discovering constant and precise relations between the stimulation of certain portions of the cortex and the production of definite movements on the opposite side of the body. The “motor areas” of Ferrier, which control movements of the face and limbs, are on both sides of the fissure of Rolando. Speech, especially in its motor aspect, is connected with portions of the left frontal lobe, (convolution of Broca), and on its sensory side with the convolution of Wernicke in the temporo-sphenoidal lobe.

The determination of sensory areas in the cortex has not in general been carried so far. We cannot, however, reject the conclusion (Hughlings Jackson) that the cortical representation of somatic functions, and therefore of sensation, must be complete. Centres have been determined, with more or less accuracy, for all the senses. But the localisation of sensory functions is not yet matter of such general agreement as that of motor functions.

Text-book, Wundt's *Physiologische Psychologie* (4th edition, 2 vols., 1893). An excellent anatomical manual is J. Ryland Whitaker's *Anatomy of the Brain and Spinal Cord* (2nd ed., 1893). For the physiology of the Brain, Foster's *Text-Book of Physiology*, pt. iii. (5th edition, 1890). M'Ewen's *Atlas of Head Sections*. Bruce, *Illustrations of the Mid and Hind Brain*.

Ferrier's *Functions of the Brain* (2nd edition, 1886) is indispensable for the problems of localisation. See also Calderwood's *Mind and Brain* (3rd edition, 1892), and James' *Principles of Psychology*, vol. i. chaps. ii. and iii. (1890). For an account of the embryonic development of the Brain see *Quain's Anatomy*,

vol. i. pt. i. (10th edition, 1890). Bastian's *Brain as an Organ of Mind* (4th edition, 1890) gives a good account of the phylogenetic development. C. M. Douglas.

CAPACITY (*capax*, containing much, capacious; *δύναμις*).—(1) Potentiality or capability. Aristotle distinguishes potentiality from activity; (2) Modern usage,—Receptive power. Taking the twofold view of human power, faculty is power of acting; capacity is power of receiving impressions. In popular language, capacity is often used as convertible with faculty,—a man of capacity standing for a man of ability.

Strictly, *capacity* is passive power, or natural receptivity. A faculty is a power which we consciously direct towards an end. A *capacity* is rather a disposition or aptitude to receive certain modifications of our consciousness. Original *capacity*, though at first passive, may be subjected to will and attention. In sensation, we are in the first instance passive, but our *capacity* of receiving sensations is employed in various ways under direction of attention, for acquisition of knowledge, or regulation of conduct.

CARDINAL (*cardo*, a hinge).—The Cardinal Virtues of Ancient Philosophy are Wisdom, Courage, Temperance, and Justice. Plato's *Republic*, bk. iv. 428–443; Jowett's *Plato*, 1st ed., ii. 255. These four virtues were so named as hinges on which other virtues turn. Each is a *fons et principium*, from which other virtues take their rise.

This division of the virtues is as old as moral philosophy. It is found in the teaching of Socrates as recorded by Xenophon, with this difference, that piety (*εὐσέβεια*) holds the place of prudence or wisdom (*σοφία*), which, united to virtue, forms true wisdom. According to Plato, wisdom is the governing virtue; courage is the right kind of fear, on guard against real dangers; temperance is the harmony of desires with intelligence; and justice consists in every man doing his proper work.

CASUISTRY.—(1) Disputation as to conflicting duties, which seem to demand attention at the same time, while they cannot be fulfilled simultaneously. In the best sense, Casuistry is a systematising of the rational grounds for adjustment of

such conflict. It presupposes the absence of dispute as to right ; (2) in an evil sense, equivalent to sophistry, wilful concealment of truth and right under subtleties of dialectic.

To *casuistry*, as ethical, belongs the decision of what are called "cases of conscience," cases in which, from special circumstances, personal obligation is involved in doubt. Perkins' *Cases of Conscience*, 1606 ; Selden, *De Jure Naturali*, 1640 ; Sanderson, *De Juramenti Obligatione*, 1647 ; Hallam's *Literature of Europe in the 17th Cent.*, ch. 21.

CATEGORICAL IMPERATIVE (*Imperativ kategorisch*).—Direct command, the "Thou shalt," of the Moral Law.

"Such an Imperative as represents an action to be in itself necessary, and without regard to anything out of and beyond it." Kant's *Metaphysic of Ethics*, Semple, new ed., p. 27. "An imperative, which, irrespective of every ulterior end or aim, commands categorically," p. 27. "The representation of an objective principle, so far as it necessitates the will, is called a Commandment of Reason, and a *formula* expressing such is called an IMPERATIVE," p. 25. The formula Kant presents in three forms :—(1) "act from a maxim at all times fit for law universal ;" (2) "act from that maxim only when thou canst will law universal ;" (3) "act as if the maxim of thy will were to become, by thy adopting it, a universal law of nature." All three point to universality as characteristic of the Ethical Imperative. The *first* expresses the authoritative in the law ; the *second* indicates that the Will must be its own legislator ; and the *third*, that the imperative belongs to the fixed law of nature.

Fichte would state the formula thus,—“Continuously fulfil thy vocation.” Hegel says,—“Be a Person, and respect others as Persons.” The Ethical Imperative implies that action is an end, and man an end in himself.

For criticism of Kant, see Lotze's *Practical Philos.*, Ladd's Tr., 13 ; Noah Porter's *Kant's Ethics*, 66 ; Caird's *Philos. of Kant*, bk. ii. ch. 2. "To say that the Categorical Imperative is *also* a discriminator of motives and ends through law, is an uncritical position." Laurie's *Ethica*, 66. The objection holds as to Butler's view of conscience, when the faculty is represented as

“exerting itself magisterially.” “I agree with Kant in holding that Law is *a priori*, for it has its genesis the Categories of Reason, and its origin is thus unveiled.” Laurie’s *Ethica*, 66.

CATEGORY (*κατηγορία*, predicate, or a category).—(1) A class into which things may be gathered on account of their resemblance; (2) a general notion, by use of which extended knowledge of things becomes possible. The one is the correlative of the other. That which is, becomes known under conditions of the understanding. The former definition presupposes things as known, and classification of them according to recognised properties; the latter indicates the general notions essential to the synthesis of knowledge,—“forms” of the understanding, by use of which, combinations in consciousness become possible. The list of Categories adopted by the Pythagoreans is given by Aristotle, *Metaphysics*, bk. i. v. 3. It consists in a series of opposites or contraries, as *Odd*, *Even*, &c. Aristotle makes the Categories ten in number, viz., *οὐσία*, substance; *πόσον*, quantity; *ποιόν*, quality; *πρὸς τί*, relation; *πού*, place; *πότε*, time; *κείσθαι*, situation; *ἔχειν*, possession, or manner of holding; *ποιεῖν*, action; and *πάσχειν*, suffering.

The Cartesians arranged all things under three categories—*Substance*, *Attribute*, and *Mode*; Locke also under three—*Substance*, *Mode*, and *Relation*; Leibnitz under five—*Substance*, *Quantity*, *Quality*, *Action* or *Passion*, and *Relation*.

The *categories* of Kant are quantity, quality, relation, and modality. According to Kant, the manifold is arranged by us in accordance with the logical functions of our judgment. “The categories are nothing else than these functions of judgment, so far as the manifold in a given intuition is determined in relation to them.” Kant’s *Critique of Pure Reason*, Meiklejohn’s Tr., p. 88; *Werke*, ed. Rosenkranz, ii., supplement 14, sec. 20, p. 740.

Following on the Kantian view, Hegel recognised the synthetic value of the categories, extended them according to differentiation in the concrete, and made their logical relation the fundamental question in philosophy. The result has been to give increased prominence to the categories, and to make synthesis, rather than analysis the leading feature in Epistem-

ology. The structure of thought itself has thus become the grand problem in philosophy.

According to Hegel, the Logic of the Categories and the Logic of Being are one, thus giving us a scheme of Dialectic Evolution. Hutchison Stirling's *Secret of Hegel*; Wallace's *Hegel*; Ueberweg's *Logic*, § 68; Lindsay, p. 200; Caird's *Philosophy of Kant*, i. 431.

Mill gives the following classification of all namable things:—(1) feelings or state of consciousness; (2) the minds which experience these feelings; (3) the bodies or external objects which excite certain of these feelings, together with the power or properties whereby they excite them; (4) the successions and coexistence, the likenesses and unlikenesses, between feelings or states of consciousness. *Logic*, bk. i. ch. iii. sec. 3.

CAUSE (*causa*, *αἰτία*, τὸ ὄθεν ἢ κίνησις).—(1) Efficient power; (2) Power originating new occurrences. The idea of *power* is essential to the conception.

Causality as a category of relation implies, on the one hand, occurrence; on the other, its dependence on prior existence. Causation is the manifestation of energy in its effects. The law of Causality is a law of mind recognising it as a necessary truth, that there must be power adequate to account for every occurrence. "Cause" in physical science is best represented by transformation of energy; but cause in the stricter sense implies origin of occurrence, such as is known in consciousness. Guided by the law of causality, research becomes ultimately a search for the First Cause, as the uncaused.

Aristotle, using the word Cause (*αἰτία*) in a wide sense to include all that is concerned in the production of any thing, enumerates four classes—formal, material, efficient, and final, *Metaph.*, i. 3; where he traces previous usage from Thales. The *efficient* is that with which modern usage connects the name, as the source, *ἀρχή*. According to Aristotle, the *first* is the *form* proper to each thing,—τὸ τί ἦν εἶναι. This is the *quidditas* of the schoolmen, the *causa formalis*. The *second* is the matter and the subject,—ἡ ὕλη καὶ τὸ ὑποκείμενον, *causa materialis*. The *third* is the principle of movement which produced the thing,—ἀρχὴ τῆς κινήσεως, *causa efficiens*. The

fourth is the end for the sake of which the thing is done—the reason and good of all things; for the end of all phenomena and of all movement is good;—τὸ οὐ ἕνεκα καὶ τὸ ἀγαθόν, *causa finalis*.

“The idea of the beginning of motion we have only from reflection on what passes in ourselves, where we find by experience, *that barely by willing it, barely by a thought of the mind,* we can move the parts of our bodies which were before at rest.” Locke, *Essay on Human Understanding*, bk. ii. ch. xxi. sec. 4.

Hume, reducing the relation of cause and effect to that of “constant conjunction,” contended that we have no proper idea of cause as implying power to produce, nor of any necessary connection between the operation of this power and the production of the effect. All that we see or know is mere succession, antecedent and consequent; having seen things in this relation, we associate them together, and, imagining that there is some *vinculum* or connection between them, we call the one the cause and the other the effect. “The idea of cause and effect is derived from *experience*, which informs us that such particular objects, in all past instances, have been constantly joined with each other.” *Human Nature*, pt. iii. sec. 6; Green’s ed., i. 390. “Thus, not only our reason fails us in the discovery of the *ultimate connection* of causes and effects, but even after experience has informed us of their constant conjunction, it is impossible for us to satisfy ourselves by our reason why we should extend that experience beyond those particular instances which have fallen under our observation.” *Ib.*, Green, i. 392. On “necessary connection,” when we say that “two objects are necessarily connected together,” sec. 14. Green, i. 450. *Essays*, “Concerning Human Understanding,” sec. 7. Of Power, “or the idea of necessary connection.” Green’s ed., vol. ii. 501; Green’s *Philosophical Works*, ii. § 136, p. 296.

Berkeley says:—“Thought, reason, intellect introduce us into the knowledge of causes,” *Siris*. He says:—“We perceive a continual succession of ideas; some are anew excited, others are changed or totally disappear. There is, therefore, some cause of these ideas, whereon they depend, and which produces

and changes them." *Principles of Human Knowledge*, § 26 ; Fraser's *Selections*, 4th ed., p. 59, where see *note*.

Kant's view of Causality as a category of thought will appear by placing together his views of receptivity, and of intellectual activity. We cannot conceive objects as successive—cannot have the representation of succession present to our mind—without regarding the successive phenomena as causally related. Instead, therefore, of the conception of cause being derived from sensation, it is a conception without which sensation could not become knowledge. Being the very condition of knowledge, it is seen to be independent of all experience,—that is, a necessary and universal condition of knowledge. Causality must, therefore, be regarded as "a pure conception of the understanding, applying *a priori* to objects of intuition in general." *Pure Reason*, Transc. Anal., bk. i. ch. i. sec. 3 ; Meiklejohn's Tr., p. 64 ; Max Müller's Tr., ii. 70.

As to the law of Causality, Mill represents it as "the law that every consequent has an invariable antecedent." This law is "coextensive with the entire field of successive phenomena, all instances whatever of succession being examples of it. The law is the Law of Causation. It is an universal truth, that every fact which has a beginning has a cause." Otherwise stated, "The truth that every fact which has a beginning has a cause, is coextensive with human experience." Mill's *Logic*, bk. iii. ch. v. § 1 ; *cf.* ch. xxi. Mill thus relies upon "induction by simple enumeration" for recognition of the law.

Lotze's *Microkosmos*, Hamilton i. 671 ; Lotze's *Logic*, Bosanquet's Tr., 93 ; Bradley's *Logic*, 484 ; Green's *Works*, ii. 296 ; Caird's *Philos. of Kant*, i. 560 ; "On Causation," Hodgson, *Mind*, iv. 500 ; "Kant has not answered Hume," Hutchison Stirling, *Mind*, ix. 531, x. 45 ; with this, consider Mill's relation to Hume.

CERTAINTY (*certum*, sure, from *cerno*, I perceive). Assurance of reality, or of truth. Certainty is obtained (1) in direct consciousness ; (2) by direct observation ; (3) by valid inference ; (4) by intuition of the reason, in recognition of universal truth. Knowledge is certainty. Immediate Knowledge gives certainty ; mediate Knowledge, as it involves process, may

involve error, and so calls for criticism of procedure, in order that there may be assurance as to result. The certainty which admits of no doubt is given in consciousness of the facts of experience, and in recognition of universal or necessary truth, axiomatic in force, and may be said to be recognised by an instinct of the soul, inasmuch as its recognition involves no dialectic process. See Mill's *Logic*, vol. i. p. 395, bk. ii. ch. 5.

Interpretation of the facts of consciousness, implying procedure of the judgment, and involving analysis, comparison, and generalisation, is involved in risks of error, which cling to intellectual procedure. In case of all such procedure, certainty is to be attained only as the result of deliberate regard to the laws of observation and of induction, in full application of the critical spirit.

The interests of truth are concerned in rigid application of the laws of evidence, and of reasoning. Trustworthy observation is not merely careful use of one's eyes, but interpretation of our experience in vision. So it is with the other senses. The variety of the special senses, affords check against error, as well as additional range for observation. "Observation" is not an immediate act, but a mental *process*, involving continual demand on judgment, with use of all available instruments of knowledge. Descartes conclusively showed that consciousness is the ultimate test of certainty. *Method*, part iv., Veitch.

"There is one thing of which no doubt can be entertained, . . . that is, the momentary consciousness we call a present thought." Huxley's *Hume*, 55.

When we pass to interpretation of the facts of consciousness, including the objective significance of our sensations, we depend on the laws of inference. "Logic is the science of the operations of the understanding which are subservient to the estimation of evidence." Mill's *Logic*, intro., § 7. On the doctrine of truth and error, Hamilton's *Logic*, ii. 60. Concerning the testing of our generalisations, in view of the difficulty of "getting an inference which amounts to demonstration," Bradley says:—"Considering my reasoning as a number of acts, I conclude that I am fallible throughout the series. But this chance is mere

antecedent probability. It may become unmeaning when the instance is present, and actually before us." *Logic*, 519.

"As regards *Certainty*, I have fully convinced myself that, in this sphere of *thought*, opinion is perfectly inadmissible, and that everything which bears the least semblance of an hypothesis must be excluded, as of no value in such discussions." Kant, pref. to first ed. of *Pure Reason*, Meiklejohn's Tr., xxi.

Reliance on the senses alone is impossible, if the meaning of experience is to be ascertained. The position of Protagoras, as given by Diogenes, Laert. ix. 51, was, "Man is the measure of all things"—(πάντων χρημάτων μέτρον ἄνθρωπος). Out of this have arisen the developments of a sensational philosophy. For criticism see Plato's *Theætetus*. Modern Philosophy has gone more rigidly into discussion of the conditions of experience and of thought. The results are seen in "experimental Psychology," and in the "critical theories of knowledge."

"The holding of a thing to be true is a phenomenon in our understanding which may rest on objective grounds, but requires also subjective causes in the mind of the person judging. If a judgment is valid for every rational being, then its ground is objectively sufficient, and it is termed a *conviction*. If, on the other hand, it has its ground in the particular character of the subject, it is termed a *persuasion*." Kant's *Critique of Pure Reason*, Transc. Doct. of Method, ch. ii. sec. 3; Meiklejohn's Tr., 496; Max Müller's Tr., ii. 703.

Locke's *Essay*, bk. ii. c. 6, and bk. iii. c. 4; Cudworth's *Eternal and Immutable Morality*, bk. iv. c. 5; Reid's *Intell. Powers*, Ess. ii. c. 17; Ferrier's *Knowing and Being*; Green's *Proleg. to Ethics*, 13; Veitch's *Knowing and Being*, 35.

CHANCE.—Such occurrences as cannot be computed by application of known natural law. Possible variability of occurrence, because of varying conditions; in contrast with fixed sequences under natural law. An event or series of events which seems to be the result neither of a necessity inherent in the nature of things, nor of a plan conceived by intelligence, is said to happen by chance. Aristotle's *Physics*, ii. 4.

"It is strictly and philosophically true in nature and reason,

that there is no such thing as *chance* or accident ; it being evident that these words do not signify anything that is truly an agent or the cause of any event ; but they signify merely men's ignorance of the real and immediate cause." Samuel Clarke, ser. xcvi. ; vol. vi. ser. xiii., ed. 1735.

"An event occurring by chance may be described as a coincidence from which we have no ground to infer an uniformity." Mill's *Logic*, bk. iii. ch. 17, § 2.

"Probability has reference partly to our ignorance, partly to our knowledge. We know that among three or more events, one, and only one, must happen, but there is nothing leading us to believe that any one of them will happen rather than the others. . . . The theory of *chances* consists in reducing all events of the same kind to a certain number of cases equally possible, that is, such that we are *equally undecided* as to their existence ; and in determining the number of these cases which are favourable to the event of which the probability is sought. The ratio of that number to the number of all the possible cases, is the measure of the probability. Laplace, *Essai phil. sur les Probabilités*, 5th ed., p. 7 ; Hume, *Essay on Probability*. — *Vide* AVERAGES, PROBABILITIES.

CHASTITY.—(1) Duty, restraining and governing the appetite of sex, so as to maintain purity of thought, speech, and behaviour ; (2) Virtue, an element in human character, essential to the conditions of moral life.

Chastity is a phase of the subordination of desire to intelligence as directed by moral law. For the rational nature, principle is the rule, not impulse, as in the animal nature. The appetite of sex, while having its definitely fixed end, is subordinated to the higher laws of good-will and justice. Sexual impulse cannot release a moral agent from obligation to seek the highest good of another. Propagation of the species, must invariably carry with it responsibilities of parentage.

CHOICE.—Voluntary selection from a variety of objects or possible courses of action ; often synonymous with *volition*. Properly, *choice* applies to things, *volition* to forms of action. "Deliberate choice is more accurately an exercise of will in determining personal conduct, after deliberation as to the rule

of conduct applicable in the circumstances. Thus Aristotle, treating of *προαίρεσις*, says:—"Deliberate preference is most intimately connected with Virtue deliberate preference is joined with law or reason and intelligence (*μετὰ λόγου καὶ διανοίας*). . . . We deliberate about those subjects of action which are within our own power." *Nicom. Ethics*, bk. iii. ch. ii. 3.

Choice or preference is strictly an act of the understanding; and when applied to action has for its objects a variety of motives, or different modes of accomplishing an end. There is deliberate preference, in order that there may be voluntary choice in conduct. This is held to be the manifestation of freedom in willing, as when "we decide to prefer some remote and abstract good to immediate pleasures." Whewell, *Elements of Morality*, bk. i. c. 2. To this Sidgwick adds,—“I cannot object on the score of usage to this application of the term ‘free’ to denote voluntary actions in which the seductive solicitations of appetite or passion are successfully resisted.” *Methods of Ethics*, bk. i. c. 5; “Choice or Decision,” Sully’s *Outlines of Psychology*, 644. Art. by Hodgson, *Mind*, xvi., 161.

CLASSIFICATION (*κλήσις*, *classis*, from *καλέω*, to call, a multitude called together).

“Classification is a contrivance for the best possible ordering of the ideas of objects in our minds; for causing the ideas to accompany or succeed one another in such a way as shall give us the greatest command over our knowledge already acquired, and lead more directly to the acquisition of more.” J. S. Mill, *Logic*, bk. iv. ch. 7.

“*Abstraction, generalisation, and definition* precede *classification*; for if we wish to reduce to regularity the observations we have made, we must compare them, in order to unite them by their essential resemblances, and express their essence with all possible precision.

“In every act of *classification* two steps must be taken; certain marks are to be selected, the possession of which is to be the title to admission into the class, and then all the objects that possess them are to be ascertained.” Thomson’s *Outlines of the Laws of Thought*, 2nd ed., 377; 3rd ed.,

343 ; Mill's *Logic*, i. 7, 4 ; M'Cosh, *Typical Forms*, bk. iii. c. 1. Lotze, *Logic*, Tr. 163. Bosanquet, *Logic*, 63.

COGNITION (*cognosco*, to know).—Knowledge in its widest sense, specially, interpretation of sensory impression, appreciation of the objective significance of our experience. Kant says :—"I cannot rest in the mere intuitions, but, if they are to become cognitions, must refer them, as representations, to something as object, and must determine them by means of the former." Preface to 2nd ed. of *Pure Reason*, Meiklejohn's Tr., xxix. ; Max Müller's Tr., supplement ii., vol. i. p. 371. "How is it possible that the faculty of cognition should be awakened into exercise otherwise than by means of objects which affect our senses ?" *Ib.*, Meiklejohn's Tr., 1.—*Vide* KNOWLEDGE.

COLLIGATION OF FACTS, in Induction, is employed by Whewell (*Phil. of Induc. Sci.*, ii. 213) to denote the binding together groups of *facts* by means of some suitable conception. "The descriptive operation which enables a number of details to be summed up in a single proposition. Mill's *Logic*, bk. iii. c. 2 ; Thomson's *Laws of Thought*, 2nd ed., 353 ; Whewell, *Nov. Org. Renovatum*, 60.

COMBINATION AND CONNECTION OF IDEAS, phrases equivalent to *Association of Ideas*. Locke's *Essay*, bk. ii. ch. xxxiii., "Of Ideas." See ASSOCIATION.

COMMON SENSE (*sensus communis*, κοινή αἰσθησις).—Intelligence common to all men. The word "sense" is here used as equivalent to cognitive power, specially as spontaneous or instinctive. "Common Sense" is thus cognitive power common to humanity, implying a general knowledge of necessary truth. Popular usage, making it equivalent to sagacity and prudence combined, involves a mark of distinction among men. The former is the only philosophic use of the term, and is that intended when the early Scottish Philosophy is named the Philosophy of Common Sense. It is that philosophy which accepts the testimony of our faculties as trustworthy within their respective spheres, and rests interpretation of experience on first truths or primitive beliefs, which are the fundamental principles of our rational nature, including the regulating principles of our conduct. This became the descrip-

tive title of the Philosophy of "the Scotch School," as distinguished by an ultimate appeal not only to consciousness, but to the principles of intelligence common to man.

The father of the Scottish Philosophy states his position thus :—"There is a certain degree of *sense* which is necessary to our being subjects of law and government, capable of managing our own affairs, and answerable for our conduct to others. This is called *common sense*, because it is common to all men with whom we can transact business, or whom we call to account for their conduct. . . . The same degree of understanding which makes a man capable of acting with common prudence in life, makes him capable of discerning what is true and what is false in matters that are self-evident, and which he distinctly apprehends." Reid, *Intellectual Powers*, Essay vi. ch. ii., Hamilton's ed., *Works*, p. 422 ; Stewart's *Elements of Philosophy of Human Mind*, pt. ii. ch. i., *Works*, iii. p. 51.

"A power of the mind which perceives truth, not by progressive argumentation, but by an instinctive and instantaneous impulse ; derived neither from education nor from habit, but from nature ; acting independently upon our will, whenever the object is presented, according to an established law ; and, therefore, not improperly, called a *sense*, and acting in the same manner upon all mankind ; and, therefore, properly called *common sense*, the ultimate judge of truth." Beattie, *Essay on Truth*, pt. i. ch. i., 10th ed., p. 26.

For a full discussion of the Philosophy of Common Sense, with extended reference to authorities—Hamilton, note A to *Reid's Works*, pp. 743–803. For history of the Scottish School—M'Cosh, *The Scottish Philosophy* ; Seth, *Scottish Philosophy*.

The Philosophy of Common Sense maintains that knowledge cannot be traced merely to sensibility,—“that our cognitions are not all at secondhand,”—that there is a common basis of knowledge in possession of all minds,—that all knowledge rests ultimately on “the Catholic principles of all philosophy.” This is the sole meaning of the appeal to Common Sense. It is misunderstood when it is regarded as an appeal to uninstructed opinion.

COMMUNISM.—Community of property among the members of a state, with repudiation of private property. The theory has been supported partly on economic grounds, partly on ethical. Its pleas are, that by united production, and equal distribution, an increase to the comfort and happiness of human life would be secured; and that by the same means the jealousies and bitterness of competition and of class interests would be ended. Its criticism of the existing order, as recognising rights of private property, is that it involves multitudes in poverty and suffering, while a few accumulate wealth. In some forms the theory attacks social life as based on the constitution of the family, alleging that this is another fortress of class interests. In this extreme form, the levelling process, after reducing men to a herd, puts the individual life under command of political government for distribution of food, clothing, work, and regulation of social conditions. Under this theory personal rights are disregarded, admitting only an equal claim of each citizen to food, clothing, and shelter.

Aristotle condemned communism. "All cannot govern at the same time, but either by the year or according to some other regulation or time. By this means every one in his turn will be in office, as if shoemakers and carpenters should exchange occupations, and not always be employed in the same calling." Aristotle's *Politics*, ii. 2. "There are two things chiefly inspiring mankind with care and affection, the sense of what is one's own, and exclusive possession, neither of which can find a place in this sort of community." *Ib.*, ii. 4. See also *The Economics*, vi.

Communism has had its theories and experiments in ancient times, as in the *Republic* of Plato and the government of Sparta. In the second century, Epiphanes, son of Carpocrates of Alexandria, vindicates a Communistic scheme, *Clem. Al. Strom.*, iii. 2. In modern times, we have had the *Utopia* of Sir Thomas More, and various schemes in France, Britain, and America. The leading names associated with the theory are those of the Abbe Morelly, *Code de la Nature*, 1755; St Simon, Fourier, Augustus Comte, Louis Blanc; and in Britain, David Dale and Robert Owen.

Hobbes's *Leviathan*; Locke's *Treatise on Civil Government*

contains a careful discussion of the question of property. Comte, *Cours de Philosophie Positive*, Martineau's transl.; Mill's *Auguste Comte and Positivism*; Caird's *Social Philosophy and Religion of Comte*. In the 19th century a revival of Socialistic feeling has favoured a fresh development of Communistic theory. Article "Communism," *Ency. Brit.*; Robert Owen's *New Views of Society*, 1812; Janet, *Les Origines du Socialisme Contemporain*, 1883; H. von. Schul, *Socialismus and Kommunismus*, 1890; Eug. L'Eichthal, *Socialisme, Communisme, et Collectivisme*, 1892.

COMPARISON.—The act of carrying the mind from one object to another, to discover likeness, difference, or relation subsisting between them. The act is an exercise of attention, voluntarily directing the energy of the mind to a class of objects or ideas. The result of *comparison* is a judgment, or affirmation. Comparison is the essential feature of thought. A concept is the result of the comparison of individual phenomena; judgment is further concerned with comparison of concepts; and inference is a deduction from several judgments. James, *Principles of Psychology*, ch. xiii.; Sully, *Human Mind*, i. 397–413.

COMPREHENSION.—Full understanding. For its logical sense, *vide* EXTENSION.

CONCEPTION (*con*, together; and *cipio*, I take).—The act of gathering up in a single mental representation qualities belonging to an object, or a group of objects. *Conception*, the act; *concept*, the thing conceived. *Conception* and *notion* are commonly taken as synonymous: "notion" is better reserved for the more generalised knowledge, expressed in general or abstract terms. Hamilton would restrict both terms in this way. *Reid's Works*, p. 360, note. The German name is *Begriff*, the gathering together, as if into a single grip. Every *concept* includes, on the one hand, a variety of attributes, and on the other, comprehends a variety of objects.

"*Conception* consists in a conscious act of the understanding, bringing any given object or impression into the same class with any number of other objects or impressions, by means of some character or characters common to them all. *Concipimus, id est*,

capimus hoc cum illo—we take hold of both at once, we *comprehend* a thing, when we have learned to comprise it in a known class." Coleridge, *Church and State*, Prelim. Rem., p. 4.

"Conceiving, imagining, apprehending, . . . are common words used to express . . . *simple apprehension*." Reid's *Intellectual Powers*, Essay iv. ch. i.

"The words conception, concept, notion, should be limited to the thought of what cannot be represented in the imagination, as the thought suggested by a general term. The Leibnitzians call this *symbolical*, in contrast to *intuitive* knowledge. This is the sense in which *conceptio* and *conceptus* have been usually and correctly employed." Hamilton, *Reid's Works*, p. 360, note; Hamilton, *Logic*, i. 40.

"*Conception* must be carefully distinguished as well from mere imagination, as from a mere understanding of the meaning of words. Combinations of attributes, logically impossible, may be expressed in language perfectly intelligible. There is no difficulty in understanding the meaning of the phrase *bilinear figure* or *iron-gold*. The language is intelligible, though the object is inconceivable. On the other hand, though all conception implies imagination, yet all imagination does not imply conception. . . . Conception, in its lowest degree, implies at least a comparison and distinction of *this* from *that*. . . . The consciousness of a general notion is thus an instance of *symbolical* as distinguished from *intuitive* knowledge." Mansel, *Prolegomena Logica*, 2nd ed., pp. 24–26.

"Intuitions and conceptions constitute the elements of all our knowledge, so that neither conceptions without an intuition in some way corresponding to them, nor intuition without conceptions, can afford us a cognition. Both are either pure or empirical. They are empirical, when sensation (which presupposes the actual presence of the object) is contained in them; and pure, when no sensation is mixed with the representation." Kant, *Pure Reason*, Transc. Logic, introd. Meiklejohn, p. 45; Max Müller, ii. 42.

"A conception may be either an *individual* conception or intuition, which has to do with one individual (or with what belongs to one individual), or a *general* conception, which refers

to a mutually related group of individuals (or of what belongs to individuals) and forms the approximate mental (psychic) basis for the notion." Ueberweg's *Logic*, § 45; James, *Principles of Psychology*, c. xii.; and Text-Book, c. xiv. Sully, *Human Mind*, i., 412-431.

CONCEPTUALISM.—A doctrine intermediate between *Realism* and *Nominalism*, in the history of Scholasticism. The *Realist* maintains that genera and species exist independently; that besides individual objects and the general notion from them in the mind, there exist certain *ideas*, the patterns after which the single objects are fashioned. The general notion in our mind is thus the counterpart of the idea without it. The *Nominalist* says that nothing exists but things, and names of things; and that universals are mere names. The *Conceptualist* assigns to universals an existence which, as opposed to *real* or *nominal*, may be called *logical* or *psychological*, that is independent of individual objects, but dependent upon the mind of the thinking subject, in which they exist as notions or conceptions. This controversy rested on the difference between Plato's theory of ideas, and Aristotle's position, taken with Porphyry's introduction to Aristotle's Logical Writings. Ueberweg's *Hist.*, i. 365; Thomson, *Outline of Laws of Thought*, 2nd ed., p. 112; 3rd ed., p. 126. Seth, "Scholasticism," *Ency. Brit.*, 9th ed.

CONCRETE (*concreresco*, to grow together).—Opposed to *abstract*; it is the existing, and that which is directly known, as belonging to the order of nature.

A *concrete* notion is the notion of an object as it exists, invested with all its qualities. An *abstract* notion, on the contrary, is the notion of some quality or attribute deprived of all the specialities with which experience invests it, or separated from the object to which it belongs, or from other attributes with which it is associated.

"What I call applied logic is a representation of the understanding, and of the rules of its necessary employment in *Concrete*, that is to say, under the accidental conditions of the subject, which may either hinder or promote this employment, and which are all given only empirically." Kant, *Pure Reason*, transl. Meiklejohn, 48.

Hegel holds that the concrete alone is real, insisting on the insufficiency of abstract terms and reasonings, as involved in reflective processes. "The categories are empty, until they are filled with the concrete." "An object, or thought, is concrete when it is seen and known to be the confluence of several elements." "By abstract is meant that a term, thought, or object, is withdrawn from its context, and regarded apart from the elements which enter into its composition, or from the relations which connect it with other things." Wallace's *Logic of Hegel*, "Vocabulary."

CONDITION (*con*, together ; and *dare*, to give).—A constituent element in a concrete existence. A pre-requisite in order that something may be. That which is attendant on the cause, or co-operates with it, for accomplishment of the result ; or, that which limits the cause in its operation.

In the language of Inductive Logic, the cause is defined as "the sum-total of the conditions positive and negative taken together ; the whole of the contingencies of every description, which, being realised, the consequent invariably follows. But it is common to single out one only of the antecedents, distinguished by active power or efficiency, under the denomination of Cause, calling the others merely Conditions." Mill, *Logic*, bk. iii. ch. v. sec. 3.

Condition and **Conditioned** are correlative. The *condition* is the ground presupposed ; the *conditioned*, *conditionate*, or *conditional* is that which is determined by it.

"The conditioned" is employed to describe the relative and limited, in contrast with the "unconditioned," which is applied to the absolute and infinite. Hamilton, *Discussions* ; Mansel, *Limits of Religious Thought*.

CONDITIONED (**Law of the**).—"I lay it down as a law which, though not generalised by philosophers, can be easily proved to be true by its application to the phenomena ;—that all that is conceivable in thought lies between two extremes, which, as contradictory of each other, cannot both be true, but of which, as mutual contradictories, one must." Hamilton's *Metaphysics*, ii. 368–9. "From this impotence of intellect, we are unable to think aught as absolute." Reid's

Works, note D, p. 911. "The law of mind, that the conceivable is in every relation bounded by the inconceivable, I call the *Law of the Conditioned*." Hamilton, *Metaphysics*, ii. 373. On this law Hamilton finds his support of the doctrine of the *Relativity of Knowledge*.—*Vide* RELATIVITY.

CONDUCT.—Rational direction of activity, in view of motive, maxims, and opportunities. Conduct is characteristic of rational agents only, being in advance of ACTION. "Conduct occurs merely in cases where a conscious idea of what is to be attained thereby, forms a point of starting for its own actualisations." Lotze's *Practical Philos.*, § 10, Ladd's Tr., p. 23.

CONGRUITY (from *congruo*, to come or run together).—The fitness or agreement of one thing with another. *Congruity* in the relations of the agent is given by some philosophers as the characteristic of all right actions. Thus there is a *congruity* or fitness in an intelligent creature worshipping his Creator, or in a son honouring his father. This use of the word belongs to the theory which places virtue in "the fitness of things."

CONNOTATION.—Correlation of attribute and object. When applied to the Term, it has the same meaning as *Intension* or *Content*, applied to the Concept itself. Thus, a Connotative Term is one which, when applied to an object, is such as to imply in its signification some attribute belonging to that object. "It *connotes*, *i.e.*, notes along with the object something considered as belonging to it, as 'The founder of Rome.' The founding of Rome is *attributed* to the person. A term which merely *denotes* an object, without implying any attribute of that object, is called absolute or non-connotative; as Romulus." Whately, *Logic*, bk. ii. ch. v. sec. 1.

"A non-connotative term is one which signifies a subject only, or an attribute only. A connotative term is one which denotes a subject and implies an attribute." Mill, *Logic*, bk. i. ch. ii. sec. 5. According to Mill, the only non-connotative terms are *proper* names. Some hold that *all* terms are connotative. Jevons, *Lessons in Elementary Logic*, lesson v. Fowler holds that "singular and collective terms are not connotative, except so far as they suggest common terms." *Elements of Deductive Logic*, p. 20.

CONSCIENCE (*conscientia*, *συνείδησις*, Gewissen, joint or double knowledge). That power by which we have knowledge of moral law; the Moral Faculty. This word is similarly compounded with "Consciousness," knowledge of self and of present experience. "Conscience," giving knowledge of moral law, provides for knowledge of the relation of action to such law. The second is attainable, because the first is given. In its philosophic sense, it is the power revealing moral law, whether regarded as an original, or as a derived, power. The theory which draws all knowledge from experience, explaining life's functions by evolution, makes small account of the name as that of a distinct faculty. If knowledge of moral law be only an induction as to the greatest happiness, there seems no place for a special faculty. Questions of Utility concern what is relative,—they deal with matters of calculation, and do not imply an absolute standard.

The theory which regards the ultimate conditions of knowledge as given by the Intelligence itself, places the fundamental truths of morals among these ultimate conditions of rational life.

Tested by references to the Moral Faculty, there are two great schools of thought, the one the Sentimental, the other the Rational, the one the Experiential, the other the Intuitional.

Whether a monistic scheme of existence, such as that of Spinoza, or that of Hegel, can include an Ethic, may be matter of debate, but both these thinkers have made Ethics conspicuous in their theoretic treatises.

Butler is the Author who first deliberately discussed the character and authority of Conscience, as a conspicuous feature in Human Nature apart from any general theory of Epistemology or of Metaphysic. His representations include the following:—

"The principle in man by which he approves or disapproves of his heart, temper, and actions, is *conscience*—for this is the strict sense of the word, though it is sometimes used to take in more." This is "a superior principle of reflection or conscience." "You cannot form a notion of this faculty, conscience, without taking in judgment, direction, superintendency." It is

a superior principle, "which distinguishes between the internal principles of his heart, as well as his external actions; which passes judgment upon himself and them; pronounces determinately some actions to be in themselves just, right, good; others to be in themselves, evil, wrong, unjust; which, without being consulted, without being advised with, magisterially exerts itself, and approves or condemns him the doer of them accordingly." Butler's *Sermons on Human Nature*, i. ii. iii.

That Butler has accurately described facts in human experience, admits of no doubt; and this has gained a very wide assent to his argument as to the supremacy of Conscience. Tried by philosophic tests, the disadvantages for the theory are these: that it is avowedly a consideration of "the inward frame of man" as a "guide in morals," rather than a study of the ultimate conditions of Knowledge; that it attributes to one faculty a multitude of functions for which no single power can be adequate; and that it does not sufficiently deal with the philosophy of authority in morals. While the accuracy of his statement of facts is not disputed, an adequate ethical philosophy has not been provided. After Butler, these questions remained: Is there an absolute standard of duty? How is this standard known?

"So long as the principle in man that governs or ought to govern is regarded merely as the faculty of knowing our true good, together with its main causes or conditions, it hardly seems important to inquire how this faculty originated. . . . But when the moral faculty had come to be conceived as Conscience, *i.e.*, as a faculty cognisant of rules absolutely binding, without regard to the agent's apparent interest—a kind of legislator within the man that demands unquestioning and unconditional obedience over all other springs of action—it was to be expected that the legitimacy of its claim would be challenged and seriously investigated; and it is not hard to understand how this legitimacy is thought to depend on the 'originality' of the faculty, that is, on its being a part of the plan or type according to which human nature was originally constructed." Sidgwick's *Hist. of Ethics*, p. 9.

The UTILITARIAN SCHOOL, contemplating moral distinctions

from the *End* of Action, which is Happiness, generally interpretate "Conscience" by reference to the Emotional side of our experience, so developing a sentimental theory. Mill's inductive statement, however, grants that the rational nature is guide of moral life:—"Our moral faculty, according to all those of its interpreters who are entitled to the name of thinkers, supplies us only with the general principles of moral judgments. It is a branch of our reason, not of our sensitive faculty; and must be looked to for the abstract doctrines of morality, not for perception of it in the concrete." Mill's *Utilitarianism*, p. 3. He proceeds, nevertheless, to say, when developing his theory:—

"The internal sanction of duty, whatever our standard of duty may be, is one and the same—a feeling in our mind, a pain more or less intense, attendant on violation of duty. . . . This feeling, when disinterested, and connecting itself with the pure idea of duty, and not with some particular form of it, or with any of the merely accessory circumstances, is the essence of Conscience," p. 41.

"I entirely dissent from Dugald Stewart, and the great majority of writers on the Theory of Morals, who represent Conscience as a primitive and independent faculty of the mind, which would be developed in us although we never had any experience of external authority. On the contrary, I maintain that conscience is an imitation within ourselves of the government without us." Bain, *Emotions and Will*, 3rd ed., p. 285.

"Whence comes the sentiment of duty considered as distinct from the several sentiments which prompt temperance, providence, kindness, justice, truthfulness, &c.? The answer is, that it is an abstract sentiment generated in a manner analogous to that in which abstract ideas are generated." Herbert Spencer's *Data of Ethics*, 124.

The RATIONAL SCHOOL, dealing with moral distinctions mainly from the standpoint of *law*, inquire how this law is known.

"The subject of law must have the conception of a general rule of conduct, which without some degree of reason he cannot have. . . . Regard to duty is a rational principle of action in man, and is that principle alone by which he is capable either of virtue or vice. . . . Some philosophers, with whom I agree,

ascribe this to an original power or faculty in man, which they call the moral sense, the moral faculty, conscience. . . . In its dignity, it is without doubt far superior to every other power of the mind." Reid, *Active Powers*, Essay iii. c. 5.

"Conscience is the reason, employed about questions of right and wrong, and accompanied with the sentiments of approbation and condemnation, which, by the nature of man, cling inextricably to his apprehension of right and wrong." Whewell, *Syst. Mor.*, lect. vi.

Kant deals with the question as one involved in our notion of Duty, which is the necessity to act, from reverence felt for law. This implies a "Categorical Imperative," whose formula is "Act from a maxim at all times fit for law universal." Thus "Reason is given as the governor of the will, to constitute it good." "Conscience is not a thing to be acquired, and it is not a duty to acquire it; but every man as a moral being, has it originally within him." *Groundwork of the Metaphysic of Ethics*. "Conscience is man's *practical reason*, which does, in all circumstances, hold before him his law of duty, in order to absolve or to condemn him. . . . An erring conscience is a chimera; for although, in the objective judgment, whether or not anything be a duty, mankind may very easily go wrong,—yet, subjectively, whether I have compared an action with my practical (here judiciary) reason for the behoof of such objective judgment, does not admit of any mistake." *Tugendlehre*, Semple, p. 248; Abbot, 217, 311.

The common ground for both theories is strongly put by Sidgwick, in a statement specially important as coming from the Utilitarian School.

"I find that I undoubtedly seem to perceive, as clearly and certainly as I see any axiom in arithmetic or geometry, that it is 'right' and 'reasonable,' and the 'dictate of reason' and 'my duty' to treat every man as I should think that I myself ought to be treated in precisely similar circumstances." Sidgwick, *Methods of Ethics*, 470.

This statement presents the essence of the problem. The question is, how shall we explain the intellectual basis of Ethical life? We must account for the notion Duty, or, as

stated by Sidgwick, the "ought" between man and man. The problem wears a distinct aspect according to the scheme to be tested. Why do we grant that we ought to seek the greatest happiness of others? How do we recognise an absolute law in morals? Under an evolution theory, how can we trace the genesis of this notion of an imperative? Under a Hegelian or Neo-Hegelian scheme, what is the significance of self-realisation as a mandate for human life? For fuller statement of the implications, Sidgwick's *Methods of Ethics*; Green's *Prolegomena to Ethics*, and his Introduction to *Hume's Ethical Works*, vol. ii. 16; Cyples' *Process of Human Experience*, 319; Calderwood's *Hand-Book of Moral Philosophy*, p. 130. The term "conscientious" applied to feelings attendant on moral judgments and associations, can be interpreted only on recognition of conscience as a special faculty. On alleged "defects" and "errors" of conscience, Muirhead, *Elements of Ethics*. Early development of conscience, Preyer, *Mind of the Child*; Compayré, *L'Evolution intellectuel and morale de l'Enfant*.

CONSCIOUSNESS (*conscientia*, Bewusstseyn, joint knowledge).—The knowledge which the mind has of itself, and of its own experience and activity. This is the common condition of experience. Consciousness is an immediate knowledge, and as such involves certainty. All schools of philosophy are agreed that the testimony of consciousness is indubitable. Its validity has never been disputed except under misinterpretation of the term. The beginning of uncertainty and controversy appears when interpretation of the facts of consciousness is attempted.

"The Greek has no word for *consciousness*." "Tertullian is the only *ancient* who uses the word *conscientia* in a psychological sense, corresponding with our *consciousness*." Hamilton, *Discussions*, p. 110; *Reid's Works*, p. 775.

The scholastic definition was, *perceptio qua mens de presenti suo statu admonetur*. Descartes, applying Doubt as a philosophic instrument, found in consciousness the ultimate test of certainty. Descartes, *Method*, Veitch's transl., pt. iv.

"We not only *feel*, but we know that we *feel*; we not only *act*, but we *know* that we *act*; we not only *think*, but we *know* that we *think*; to think, without knowing that we think, is as

if we should not think; and the peculiar quality, the fundamental attribute of thought, is to have a *consciousness* of itself." Cousin's *Hist. of Modern Philos.*, i. 274. "Consciousness of the mind's own feelings and operations cannot be disbelieved. Mill's *Exam. of Hamilton's Philos.*, 166.

"Internal perception, more trustworthy than external, is the foundation of all philosophical knowledge. That we have a perception of our own inner mental (psychic) life, into which existence immediately enters, without the admixture of a foreign form, is the first stronghold of the theory of knowledge." Ueberweg, *System of Logic*, p. 88, Lindsay; Locke's *Essay*, bk. ii. c. 1; Reid's *Intellectual Powers*, Essay i. c. i.

Hamilton, *Metaph.*, lects. xi.-xvi., and note H in *Reid's Works*; Mill, *Examination of Hamilton*, chaps. viii. and ix.

Consciousness is the exercise of an intelligent nature distinguishing its own states; knowing by difference, discriminating one feeling from another, as related in time. It is not merely "a thread of consciousness," having continuity of existence, but an activity of intelligence, distinguishing a variety of elements in a single state, and comparing present with past. "If a being can appear anyhow to itself, it must be capable of unifying manifold phenomena in an absolute indivisibility of its nature." Lotze's *Microkosmos*, Hamilton, i. 157.

Consciousness and Nerve action, Carpenter's *Mental Physiology*; Bain's *Senses and Intellect*, "Central Innervation and Consciousness." Wundt, *Mind*, i. 161; Wundt's *Essays*; Münsterberg's *Beiträge zur experimentellen Psychologie*, Heft. i., 1-63; Calderwood's *Relations of Mind and Brain*; James, *Text-Book of Psychology*, c. xi.; Höfding, *Psychology*, c. iii.; Sully, *Human Mind*, i., p. 74; Ladd, *Physiological Psychology*, p. 494. Is there "universal consciousness"? p. 544—Seth, *Hegelianism and Personality*, 29.—*Vide* SUB-CONSCIOUS ACTIVITY OF MIND.

CONSENT (*con*, with; and *sentio*, to discern).—Voluntarily expressed agreement with another in thought, feeling, or action.

Assent expresses a conviction of the understanding; *Consent*, acquiescence of disposition and will. The one accepts what is *true*; the other agrees to participate in what is approved in action.

CONSENT, UNIVERSAL, Argument from, to the necessity of the truth involved.—Universal consent is the historic expression of the necessity which rational life recognises. “These things are to be regarded as *first truths*, the credit of which is not derived from other truths, but is inherent in themselves.” Aristotle, *Topic.*, bk. i. ch. i.

De quo autem omnium natura consentit, id verum esse necesse est. Cicero, *De Nat. Deor.*, lib. i. cap. xvii.

These necessary truths, Descartes named “Eternal truths,” and “common notions” or axioms,—adding that “these truths are clearly perceived, but not equally, by all men, on account of prejudice.” *Principles of Philos.*, p. 1, props. 49 and 50. His examples are, the law of Causality, the principle of non-contradiction, personal existence as given in consciousness. *Cogito, Ergo Sum.* Mill's *Logic*, bk. ii. c. v.

CONSERVATIVE FACULTY.—Hamilton's designation for memory proper, having associated with it the *Reproductive* and the *Representative* faculties. *Metaph.*, lect. xxx.

CONSTITUTIVE (*con*, together; *sto*, to stand; German, *constitutiv*).—That which, being an essential condition of knowledge, goes to the structure of the “object” of knowledge; opposed to a condition of intelligence which is merely *regulative* of the procedure of our minds, without giving assurance of objective reality. This is Kant's use of the term. Sensory impression does not of itself give “rational cognition,” but our intelligence provides conditions in accordance with which a rational cognition is constituted. These conditions are the “forms” of the sensory, and the “categories” of the understanding. Taking the manifold content of sensibility, we attain to rational knowledge by the aid of conceptions which lead to synthetical unity. The conditions of the possibility of experience are thus also the conditions of the possibility of the objects of experience. While the forms of intuition and the categories of understanding are *constitutive* (*i.e.*, actually constitute the object of knowledge), the ideas of reason are only *regulative* of our reasoning; in practice, ideals towards whose realisation we may be always striving, but which are never realised as objects in experience.

The distinction between "Constitutive" and "Regulative" appears at various points in Kant's *Critique of Pure Reason*. First, when treating of "the analogies of experience," he says, "experience is possible only through the consciousness of a necessary connection of perceptions of sense." Distinguishing the categories into mathematical and dynamical, the former, as concerned with the possibility of existence, he makes constitutive, while the latter, as concerned with variable relations, are only regulative of thought, even though they be thus constitutive as to experience. Meiklejohn's Tr., p. 135; Hutchison Stirling's *Text-Book to Kant*, p. 285, cf. 392. When we pass to the ideas of the reason, the idea is "a necessary conception of reason, to which no corresponding object can be discovered in the world of sense." Meiklejohn's Tr., p. 228. These ideas are three,—the Soul, the Universe, and God. These transcendental ideas are only *regulative* of our thought. *Ib.*, p. 407. See also *Ib.*, 424. "I accordingly maintain, that transcendental ideas can never be employed as constitutive ideas, that they cannot be conceptions of objects, and that when thus considered, they assume a fallacious and dialectical character." *Ib.*, 395.

CONTINGENT (*contingo*, to touch).—Occurrences dependent upon events which we cannot forecast; variable possibilities, under fixed law. An event, the opposite of which is *possible*, is *contingent*; an event, the opposite of which is *impossible*, is *necessary*.

"In popular language, whatever event takes place of which we do not discern the cause why it should have happened in this manner, or at this moment, rather than another, is called a *contingent* event; as, for example, the falling of a leaf on a particular spot, or the turning up of a certain number when dice are thrown." Taylor, *Elements of Thought*. All events are, in a sense, *necessary*, as forming part of the universal causal nexus, but we call those *contingent* whose necessity we cannot trace.

CONTINUITY (Law of).—Persistence of being, or of movement through successive stages, or of life through successive transformations. We have examples in the indestructibility of matter, in the conservation of energy, and in biological evolution.

The *law of continuity*, originally applied to *motion*, was afterwards extended to continuity of *life*.

For recent usage in physical science, see Balfour Stewart's *Conservation of Energy*, and Tait's *Recent Advances of Physical Science*. "The grand principle of Conservation of Energy . . . is simply a statement of the invariability of the quantity of energy in the universe." *Tait*, p. 17.

It is as the result of Darwin's observations, that the law of continuity has been extended to life, implying a gradual evolution of more highly differentiated organism. This is the law of continuity in Biology. Russel Wallace has, however, insisted that "it is not to be assumed, without proof or against independent evidence, that the later stages of an apparently continuous development are necessarily due to the same causes only as the earlier stages." *Darwinism*, 463; Darwin's *Descent of Man*; Romanes, *Mental Evolution in Man*; Calderwood's *Evolution and Man's Place in Nature*; Lloyd Morgan, *Animal Life and Intelligence*, Huxley, *Evolution and Ethics*. Weismann maintains that there is continuity of Germ-Plasm through the history of succeeding generations. *Essays on Heredity*, transl., 2nd ed., i. 170; *The Germ Plasm*, transl., 198. Granting evolution of organic existence, we have to account for appearance of the thinking being.

CONTRACT (*contraho*, to draw together).—A voluntary agreement, founded on rights, natural or acquired, and involving mutual obligations.

Viewed ethically, the obligation to fulfil a contract is the same with that to fulfil a promise. Aristotle, *Rhet.*, i. 10; *Eth. N.*, v. 2, 13. The framing and fulfilling of contracts have in all countries been made the object of positive law. The consideration of the various kinds and conditions of *contracts* thus belongs to Jurisprudence. In Roman law a distinction was made between relations or agreements entered into without any cause or consideration, antecedent, present or future, and pacts which were entered into for a cause or consideration, that is, containing a *συνάλλαγμα*, or bargain, having regard to a *quid pro quo*—in which one party came under obligation to give or do something, on account of something being done or given

by the other party. Agreements of this kind were properly *contracts*, while those of the former were called *bare pacts*. A *pactum nudum*, or *bare pact*, was so called because it was not clothed with the circumstances of mutual advantage, and was not a valid agreement in the eye of the Roman law. *Nuda pactio obligationem non facit*. It is the same in English law, in which a *contract* is defined as "the agreement of several persons in a concurrent declaration of intention, whereby their legal relations are determined." Maine's *Ancient Law*, ch. ix.

The natural right of each to the unfettered use of his own powers is implied in contract for mutual advantage. This right is essential to personality, and is prior to all voluntary contract, and to all civil organisation. This right, belonging to the nature of the rational agent, is not abated or endangered by absence of his own choice in the constitution of the family, or of the state. Family authority and civil are both modified by reference to natural rights. No existing compact, social or civil, deprives a rational being of his natural rights, or in any degree limits his title to fall back upon them. Within these limits must be read the maxim,—“Law alone creates obligation.” Natural obligations restrict created obligations. Roman Law—*Corpus Juris Civilis*. Grotius, *De Jure Belli et Pacis*, 1625, where acknowledgment is made of laws which are “eternal, and fitted for all seasons, unwritten laws of nature.” Puffendorf, *Law of Nature and Nations*, 1672; Montesquieu, *Spirit of Laws*, 1748; Hobbes, *Leviathan*, ch. 14, “Laws of Nature.”

CONTRADICTION (Principle of), or rather of non-contradiction (*contradico*, to speak against; *contradictio*, ἀντίφασις).—A thing cannot be and not be at the same time, or the same attribute cannot at the same time be affirmed and denied of the same subject. Aristotle laid down this principle as the basis of all Logic, and of all Metaphysic. *Metaph.*, lib. iii. cap. iii. sec. 3; lib. ix. cap. vii.; lib. x. cap. v.; lib. iv. cap. iii. sec. 13; lib. iv. cap. v. sec. 59; lib. iii. cap. ii. sec. 12; *Analyt. Prin.*, ii. 2, 53, bk. 15.

Attacked in ancient times by the Sceptics and by Epicurus, and in the Middle Ages by the Scotists, it has been subjected by modern philosophers to searching scrutiny. With Locke, its

only use was didactic and argumentative. *Essay*, iv. 7. Leibnitz vindicated its innate character against Locke's attack. *Nouv. Essais*, iv. 2, sec. 1. Considering it insufficient, however, as the basis of all truth and reasoning, he added the principle of *sufficient reason*.

Kant thought this principle good only for analytic judgments, those judgments of which the predicate is implied in the subject; as when we say, all body has extension. The idea of extension being implied in that of body, it is a sufficient warrant of the truth of such a judgment that it implies no *contradiction*. In synthetic judgments, on the contrary, we rest either on a *priori* grounds of reason, or on the testimony of experience.

Hegel considers it as the true expression of the procedure of thought at a certain stage—that of the “abstract” understanding. But the distinctions which seem to the understanding to be absolute are overcome by reason, which finds a deeper unity in the identity of opposites; and thus, though all thought proceeds according to the principle of contradiction, that principle is not to be taken as a final statement of truth, but only as its provisional expression. *Logic of Hegel*, Wallace, p. 189.

Hamilton considers this principle equally primary with that of Identity, the one being the positive and the other the negative expression of the same law. *Lectures on Logic*, i. 81–2; Ueberweg, *System of Logic*, pp. 235, Lindsay's Tr.

CONTRADICTIONARY.—The CONTRADICTIONARY of any *Term* is its mere negation, e.g., *not-white* is the contradictory of *white*. So the contradictory of any *Proposition* is its mere negation. *Some men are not white* is the contradictory of *All men are white*. The contradictory of the Universal Affirmative (A) is the Particular Negative (O); of the Universal Negative (E) the Particular Affirmative (I). Of two contradictory propositions, one is necessarily true and the other false.

CONTRAPOSITION.—A so-called “immediate inference,” which is only a different form of statement. *Every S is P*; therefore *No not-P is S*. It consists in denying the original subject of the contradictory of the original predicate.

CONTRARY.—Aristotle defines *contrary*, “that which in the same genus differs most;” as in colour, white and black;

in sensation, pleasure and pain; in morals, good and evil. *Contrary*, like *contradictory*, is applied both to *Terms* and *Propositions*. "Pleasure and pain are opposed to each other as *contraries*, not as *contradictories*. The affirmation of the one implies the negation of the other, but the negation of the one does not infer the affirmation of the other." Hamilton, *Metaph.*, vol. ii. p. 436. Of Propositions, the Universal Affirmative (A) and the Universal Negative (E) are opposed to one another as *contraries*, and of these both cannot be true; both may be false. Thus, the affirmative of the one implies the negative of the other, but not *vice versa*. *Sub-contrary* propositions are the particular affirmative (I) and the particular negative (O). Of these both may be true, and only one can be false.

CONVERSION.—The transposition of the subject of a proposition into the place of the predicate, and of the predicate into the place of the subject. The proposition to be *converted* is called the *convertend*, and that into which it is converted the *converse*. Logical conversion is one species of *Immediate Inference*, the truth of the *converse* being inferred from the truth of the *convertend* by conversion. No term must be distributed in the *converse* which was undistributed in the *convertend*. It is of three kinds, viz., *simple conversion*, *conversion per accidens* or *by limitation*, and *conversion by negation or contraposition*.

CO-ORDINATION.—The act of bringing into habitual co-operation within any one of the nerve centres, sensory tracts and motor tracts, concerned simultaneously in the production of movement. Around the centre of Co-ordination gathers a mass of organic habits, favourable for increase of power. Constituent sensations and contractions are combined, so as to imply that they shall be co-ordinated. Herbert Spencer, *Biology*. In "any neurotic diagram, there is a kind of focal point on the integrity of which the whole specific effectiveness of the diagram depends." Cycles, *Human Experience*, 120; Foster's *Physiology*, 5th ed., p. 1009; Ferrier, *Functions of the Brain*, 2nd ed., p. 139.

COPULA (The) is that part of a proposition which indicates that the predicate is affirmed or denied of the subject.

This is sometimes done by *inflection*; as when we say, Fire burns; but more commonly by the word *is*, when affirmative—*is not*, when negative; or by some other part of the verb *to be*. Whately, *Logic*, bk. ii. ch. i. sec. 2; Mill, *Logic*, bk. i. ch. iv. sec. 1; Fowler, *Deductive Logic*, p. 25.

COROLLARY.—A consequence following from something already demonstrated; an *additional* element of knowledge made good by some previous attainment.

COSMOGONY (*κόσμος*, world; *γίγνομαι*, to come into being).—A theory of the origin of the world.

Of Cosmogonies, some represent the *matter*, though not the form, of the world to be from eternity; others attribute both the matter and form of the world to a First Cause.

Pythagoras, founding on mathematical reasoning, taught that the principle of numbers supplied the key to existence. Diog. Laert., lib. viii. 48. The Atomists, Leucippus and Democritus, taught that the origin of all was in indivisible and eternal atoms, similar in nature, but differing in form and position. Aristotle, *Metaph.*, i. 4; Burnet, *Early Greek Philos.*, p. 22. According to Aristotle, matter is eternal; God acts directly upon the heavens; Nature has in it the principle of motion and rest; all motion is directed to an end; and, in course of the motion, the elements are originated, and beyond this appears organised being. In a scientific age, the problem of the Origin of the Universe must be discussed in accordance with the deeper knowledge of fixed law which has been attained. Interpretation of the Universe itself must regulate thought as to its origin.

COSMOLOGY (*κόσμος*, world; *λόγος*, science).—A theory of the universe, satisfying the requirements of our scientific knowledge and of the principles of reason.

“The object of Cosmology comprised Nature, as well as the complicated phenomena which mind throws out from itself; in fact, existence itself, or the sum of all finite things.” Wallace, *Hegel's Logic*, § 35, p. 58.

Kant's *Allgemeine Naturgeschichte*, Werke, vi. 205; Hegel's *Naturphilosophie*, Werke, vii. Hegel says, “Nature is to be regarded as a system of grades, the one of which proceeds necessarily from the other.” Laplace, *Introduction to the Theory*

of Science ; Humboldt's *Cosmos* ; Cudworth's *Intellectual System of the Universe*, ch. i. ; Lange, *Hist. of Materialism*, ii. 3, 3 ; Darwin, *Origin of Species*, 402 ; Haeckel, *Nat. Hist. of Creation* ; Broun, *Geschichte der Natur* ; Lotze, *Microcosmus*, i. 374 ; Fiske, *Outlines of a Cosmic Philos.*, based on the doctrine of Evolution.

COSMOTHETIC IDEALISTS.—Those who, while denying an immediate knowledge of the external, admit the reality of the outer world. An alternative designation to *Hypothetical Dualists*. “Denying our immediate or intuitive knowledge of the external reality, whose existence they maintain, they, of course, hold a doctrine of mediate or representative perception, and, according to the various modifications of that doctrine, they are again subdivided into those who view, in the immediate object of perception, a representative entity present to the mind, but not a mere mental modification, and into those who hold that the immediate object is only a representative modification of the mind itself.” Hamilton, *Metaph.*, lect. xvi.

COURAGE (*ἀνδρεία*).—The manly or soldierly virtue,—the second of the Cardinal virtues described by Plato, *Republic*, lib. iv. 429, defined as the right kind of fear, and illustrated by the military profession, accepting direction from the legislators as to the real dangers of the State.

Courage may be distinguished as physical or moral ; the one arising from a physical energy, which favours boldness, and makes light of danger ; the other springing from reverence for God, and supreme regard to the demands of moral law ; unitedly sustaining a disposition which disregards probable loss or suffering, consequent on well-doing.

CRANIOLOGY (*κράνιον*, the skull).—A theory of the skull, designed by reference to its measurement and form, to supply evidence of physical development, and data for judgment concerning comparative brain-power and mind.

Cranial capacity is a test of brain development, the bony defence of the organ being some guide to the development of the leading nerve-centre. Craniology is thus a department of comparative anatomy. Quain, *Anatomy* ; Turner, *Anatomy* ; Broca, *Instructions Craniologiques*, Paris, 1875.

Within the problem concerning man's place in nature, lies comparative craniology, as determined by measurements of skulls found in caves or in the earth's surface. Lyell, *Antiquity of Man*; Huxley, *Man's Place in Nature*. Phrenology is an exploded theory, supplanted by localisation of functions in the brain.

CREATION (*Creo*, to make, produce, and, in secondary significance, to beget).—Origin of finite being. If the existence of God be denied, we must accept one or other of two hypotheses: either there are two necessary and eternal beings, spirit or energy and matter, or all beings are but modes or manifestations of one eternal or necessary being. A belief in *creation* recognises one necessary and eternal being, at once substance and cause, intelligence and power, absolutely free and infinitely good, source of the Universe, and grants that all finite existence is dependent being.

Agnosticism as to the Supernatural, leaves unsolved the problem as to the origin of the Universe,—a problem shaped by science, but towards its solution science offers no aid. Under scientific conditions, we can speak only of the “*incomprehensible act of Creation.*” Science gives no help towards such a representation. Darwin admits that Evolution of life contributes nothing towards solution of the problem of life's origin; but accepts Evolution as affording a grander representation of Creation. *Origin of Species*, 402.

Creation is a conception of Causality transcending the Universe; acknowledging that Naturalism cannot transcend Nature. Creation is only an amplified reading of the law of Causality, as that is a law universally held, and applied in all departments of Science. “Present events are connected with the events of the past by a link resting on the obvious principle that a thing cannot begin to exist without a cause which produces it.” Laplace, *Introduction to the Theory of Science*. Creation is Causality transcending Natural History.

CRITERION (*κριτήριον*, *κρίνειν*, to discriminate).—A test of certainty, including instruments of knowledge, forms of evidence, and standards of judgment. *Criterion secundum quod*,—the *rule* according to which one judges.

“A universal criterion of truth would be such as holds good of all cognitions, without distinction of their objects. It is plain, however, that as in the case of such a criterion there is abstraction from every matter of cognition (reference to its object), and truth precisely concerns this matter, it is quite impossible and absurd to ask still after a criterion of the truth of this matter of the cognitions; and that, therefore, it is impossible also to assign any adequate criterion of truth that shall at the same time be universal. What is to be said here, then, is that of the truth of cognition as regards matter, there is no universal criterion to be required, for any such were a contradiction in itself. But it is equally plain, as regards cognition in mere form (all matter apart), that a logic confined to the universal and necessary rules of the understanding must furnish first in these rules criteria of the truth. For what contradicts these is false, inasmuch as the understanding would then contradict its own universal rules of thought, and consequently its own self. . . . The merely logical criterion of truth, agreement of cognition, namely, with the universal and formal laws of the understanding and reason, is certainly the *conditio sine qua non*, or the negative condition of all truth. Further, however, logic cannot go; and the error which concerns not the form, but the matter, is not to be detected by any touchstone of logic.” Kant’s *Pure Reason*, pt. ii., introd., sec. iii., Meiklejohn’s Tr., 51; Stirling’s *Text-Book of Kant*, p. 176. On the *criteria* of Evidence or Testimony, Sir G. C. Lewis, *On Authority in Matters of Opinion*.

CRITIQUE (*Kritik*).—Employed by Kant to designate a philosophy attained by discrimination of those elements of knowledge which are given by the Understanding or by the Reason, in contrast with those derived from experience. It is not “a criticism of books and systems, but a critical inquiry into the faculty of reason, with reference to the cognitions to which it strives to attain *without the aid of experience*.” Pref. to 1st ed. *Pure Reason*. “That all our knowledge begins with experience admits of no doubt . . . but it by no means follows that all arises out of experience. . . . It is, therefore, a question . . . whether there exists a knowledge altogether

independent of experience, and even of all sensuous impressions? Knowledge of this kind is called *a priori*, in contradistinction to empirical knowledge, which has sources *a posteriori*, that is, in experience. . . . From all that has been said, there results the idea of a particular science, which may be called the *Critique of Pure Reason*. For reason is the faculty which furnishes us with the principles of knowledge *a priori*. . . . We can regard a science of the mere criticism of pure reason, its source and limits, as the *propædeutic* to a system of pure reason. Such a science must not be called a Doctrine, but only a Critique of Pure Reason." Kant's introduction to the *Critique of Pure Reason*.

CUMULATIVE ARGUMENT.—An argument gaining in force by increase of evidence and of reasons as it advances, each new point yielding additional testimony for the conclusion. Its strength does not lie in the connection of the points with each other, but simply in their sum.

CUSTOM (*Consuetudo*).—Common practice; the familiar in thought, feeling, or action. Habit is facility acquired by repetition.

CYNIC.—One of the schools of Philosophy, formed after the days of Socrates, noted for the prominence given to the Socratic teaching as to self-denial and independence of external advantages.

After the death of Socrates, some of his disciples were accustomed to meet in the Cynosarges (*Κυνόσαργες*), one of the gymnasia of Athens,—and hence they were called *Cynics*. Diog. Laert., lib. vi. cap. xiii.

Antisthenes was the founder of the school. He treated of the distinction between opinion and knowledge,—*παρὰ δόξης καὶ ἐπιστήμης*,—Diog. Laert., lib. vi. cap. xvii.; and insisted that virtue is the true requisite for a happy life. "To the Cynic nothing is good but virtue, nothing bad but vice, and what is neither the one nor the other is for man indifferent." Zeller, *Philosophy of the Greeks*, Reichel's transl., "Soc. and the Socrat. Schools," p. 256.

Diogenes is the name most familiar as representative of the school, being pre-eminently "The Cynic," by teaching, character,

and habits, giving definiteness to the name, while exaggerating its characteristics. He is described by Zeller as "that witty and eccentric individual, whose imperturbable originality, ready wit, and strength of character, admirable even in its excesses, no less than his fresh and vigorous mind, have been held up to view as forming the peculiar type of character of the ancient world." *Ib.*, p. 245. The weakness of the school lay in its ascetic tendency, carried even to the extent of contemptuous disregard of the ordinary notions and susceptibilities of men. This school is the historic precursor of the Stoics.

CYRENAIC.—A school of Philosophy, formed from amongst those who had come under the sway of Socrates. Its founder, Aristippus of Cyrene, who was attracted to Athens by the fame of Socrates, Diog. Laert., lib. ii., is designated by Aristotle "a Sophist." Under his guidance the thought and practice of the school tended in the contrary direction from that of the Cynics, exalting pleasure as the desirable, not as if escape from pain were enough, but making attainment of pleasure by direct effort the end of life. At the opposite pole from asceticism, it still insisted on the need for self-regulation as a necessary condition for happiness in life. With the prominence given to enjoyment, the school favoured a sceptical tendency in thought, along with self-indulgence in practice. Historic relations connect the Cyrenaics with the Epicureans. Zeller, *Philosophy of the Greeks*, "Soc. and the Socrat. Schools," Reichel's Tr., ch. xiv.

DÆMON (*δαίμων* or *δαίμόνιον*).—The term in earliest Greek usage meant a god, one of the order of deities; later, an inferior deity, acting the part of a messenger for the gods, specially in communicating their will to men; this is the sense in which it is applied to the dæmon or genius of Socrates; in latest use, an evil spirit.

Socrates declared that he had a friendly spirit, or *Dæmon*, who restrained him from things he was about to do. In the *Apology*, Socrates refers to the coming of the *δαίμόνιον* as a well-known characteristic of his life, inconsistent with the charge of atheism brought against him. The Daimonion is spoken of as a Voice, a God, a Messenger from the God, but is never represented as an appearance. The counsels communi-

cated by the Dæmon are not strictly ethical, and do not support identification of the Voice with that of Conscience, as often maintained. There is need for deduction from the representation of Schliermacher when he makes the aid of the *δαίμόνιον* account for "such rapid moral judgments as cannot be referred to distinct grounds, which accordingly Socrates did not attribute to his proper self."

Ueberweg's *Hist.*, i. 236; Xenophon's *Memorabilia*, i. 1, 4; i. iv. 15; iv. 8, 5; Kühner's pref. to *Memorabilia*; Plato, *Phædrus*, 242; *Laws*, iv. 713; *Symposium*, 202; Plutarch has a Dialogue on the *Dæmon* of Socrates, and Apuleius also wrote *De Deo Socratis*. Schleiermacher, *Geschichte der Philos.*, in *loc.*; Zeller's *Socrates and the Socratic Schools*, transl., pp. 72-81 and 187; Archer Butler's *Ancient Philos. First*, lect. vii.; Art. by Jackson, in *Cambridge Jour. of Philology*.

DATUM.—That which is given or granted as a position from which to inquire, explain, or reason. Facts are data for observational science; axioms, for mathematics; and the conditions of the understanding, and first truths of the reason, for metaphysics.

DEDUCTION (*de ducere*, to draw from).—Drawing a particular truth from a general, antecedently known. This is distinguished from *Induction*, rising from particular truths to a general.

The syllogism is the form of *deduction*. "An enunciation in which, from the truth of certain assertions, the truth of another assertion, different from the first, is inferred." Aristotle, *Prior Analyt.*, bk. i. ch. i.

The principle of *deduction* is, that things which agree with the same thing agree with one another. The principle of *induction* is, that from the same causes, operating in the same circumstances, the same effects will follow.

Mill holds that all reasoning is ultimately inductive. For his views as to the relation of induction and deduction, see *Logic*, bk. ii.; Whewell, *Phil. of Induct. Sci.*

DE FACTO and **DE JURE.**—In judicial procedure, the contrast between that which occurs under fixed conditions of life, and that which is consequent on administration of law.

With some offences the penalty attaches to the offender when the act is committed ; in others, not until he is convicted by law. In the former case he is guilty *de facto*, in the latter *de jure*.

De facto is commonly used in the sense of *actually*, and *de jure* in the sense of *legally* ; hence the philosophical use of the terms. A *de facto* proof is a "natural history" of the facts ; a *de jure* proof is a vindication of their existence ; the principle of causality may be proved *de facto*, as a matter of fact accepted and acted upon by men ; or *de jure*, it may be shown to be the necessary presupposition of experience itself. To this last leads the Kantian method, giving *Transcendental Deduction* as a fundamental portion of an adequate Epistemology.

DEFINITION (*definitio*, to mark out limits) "is used in Logic to signify an expression which explains any term so as to *separate* it from everything else, as a boundary separates fields." Whately. A *Definition* is a categorical proposition, consisting of two members, a subject defined (*membrum definitum*) ; and the defining attributes by which it is distinguished from other things (*membrum definiens*).

Logicians distinguish definitions into *Nominal* and *Real* : *Nominal* explain merely the *meaning of the term* ; *Real* explain the nature of the thing signified, or rather of the notion of the thing. Whately, *Logic*, bk. ii. chap. v. sec. 6.

"By a *real*, in contrast to a *verbal* or *nominal* definition, the logicians do not intend 'the giving an adequate conception of the nature and essence of a thing ;' that is, of a thing considered in itself, and apart from the conceptions of it already possessed. By *verbal* definition is meant the more accurate determination of the signification of a *word* ; by *real* the more accurate determination of the contents of a *notion*. The one clears up the relation of *words to notions* ; the other of *notions to things*. The substitution of *notional* for *real* would, perhaps, remove the ambiguity." Hamilton, *Reid's Works*, p. 691, note.

On the question whether logical Definition is *real* or *nominal*, various views are held. Whately holds that "Logic is concerned with *nominal* definitions alone." *Logic*, bk. ii. ch. v. sec. 6. Mill says, "The simplest and most correct notion of

a *definition* is a proposition declaratory of the meaning of a word." *Logic*, bk. i. ch. viii. sec. 1. Mansel says, "In the sense in which *nominal* and *real* definitions were distinguished by the scholastic logicians, logic is concerned with *real*, i.e. *notional*, definitions only; to explain the meaning of words belongs to dictionaries or grammars." *Prolegomena Logica*, p. 189.

"There is a real distinction between definitions of names and what are erroneously called definitions of things; but it is that the latter, along with the meaning of a name, covertly asserts a matter of fact. This covert assertion is not a *definition*, but a postulate. The *definition* is a mere identical proposition, which gives information only about the use of language, and from which no conclusions respecting matters of fact can possibly be drawn. The accompanying postulate, on the other hand, affirms a fact which may lead to consequences of every degree of importance." Mill, *Logic*, bk. i. ch. viii. sec. 6.

For various classifications of Definitions, see Ueberweg's *System of Logic*, p. 164, Lindsay's transl.

The *Faults* of Definition are thus enumerated by Ueberweg (*Logic*, p. 172, Lindsay's transl.):—(1) Too great *width* or *narrowness*; (2) *Redundancy*, or the mention of derivative determinations or *properties*, besides the *essence*; (3) *Tautology*, when the notion to be defined is repeated in the Definition; (4) *Circulus in Definiendo*, or the attempt to define a notion by means of those notions which presuppose it; (5) Definition by *figurative expression* or by *mere negatives*.

Aristotle, *Topic.*, lib. vi.; *Poster. Analyt.*, lib. ii.; *Port Royal Logic*, part. i. ch. xii., xiii., xiv.; part. ii. ch. xvi.; Locke, *Essay on Human Understanding*, bk. iii. ch. iii. and iv.; Reid, *Account of Aristotle's Logic*, ch. ii. sec. 4; Davidson's *Logic of Definition*.

DEIST (*Deus*, God).—(1) Properly, the Latin form, identical in significance with the Greek form, Theist (*θεός*, God); (2) technically distinguished from Theist, Deist designating one who believes in an Eternal Being, the source of all finite existence, but denies his Personality, or, at least, his personal

government of the universe; Theist, to describe one who believes in God's direct personal government in accordance with fixed laws, and for righteousness,—popularly, one who admits natural, but denies revealed religion; (3) "Deistic" has been made equivalent to denial of the "Theistic position, by acceptance of a materialistic (atheistic) scheme of existence.

Distinguishing between Transcendental Theology and Natural Theology, Kant says:—"If by the term *Theology* I understand the cognition of a primal being, that cognition is based either upon reason alone (*theologia rationalis*) or upon revelation (*theologia revelata*). The former cogitates its object either by means of pure transcendental conceptions, as an *ens originarium*, *realissimum*, *ens entium*, and is termed *transcendental theology*; or by means of a conception derived from the nature of our own mind, as a supreme intelligence, and must then be entitled *natural theology*. The person who believes in a transcendental theology alone is termed a *Deist*; he who acknowledges the possibility of a natural theology also, a *Theist*." Kant's *Pure Reason*, Critique of all Theology, Transcendental Dialectic, bk. ii. ch. iii. sec. 7, Meiklejohn, 387.

Towards the close of the seventeenth century and beginning of the eighteenth, the term Deist was used as descriptive of those opposed to revealed religion. Leland's *View of Deistical Writers*; Ueberweg's *History of Philosophy*, ii. 371; L. Stephen's *English Thought in the Eighteenth Century*; Lecky's *History of Rationalism*; Caird's *Evolution of Religion*, i. 312.

DELIBERATION (*delibero*, to weigh well).—Reflection as to conditions and possible consequences of action; application of intelligence as a preliminary for wise direction of conduct. Power of reflection is the condition of moral responsibility. Its exercise implies either that the mind, when uncommitted, is swayed by rational considerations, seeking to ascertain the wise course of action in given circumstances; or, that the mind, swayed by strong impulse, places restraint on the motive, and weighs the consequences of acting on the motive. Aristotle was the first to deal formally with "deliberate preference" as the condition of moral life. *Nicom. Ethics*, bk. iii. c. v.

DELUSION (*deludo*, to deceive).—Appearance inconsistent

with reality; an objective interpretation of feeling or fancy, without ascertained evidence. Instruments of knowledge are liable to become occasions of delusion, when their use is separated from exercise of the critical faculty. Physical susceptibilities, psychic feelings, and play of imagination, are the chief sources of delusion. In every case, active imagination is implied. It is we ourselves who assign objective significance to inward feeling. Observation and reflection must be the tests of all objective interpretation of experience.

The "delusions of the senses" are not to be attributed to the senses themselves, but to our interpretation of impressions, by long established associations. Feelings awakened by morbid nerve conditions readily receive an objective interpretation, on the supposition that normal conditions of susceptibility are maintained. Facility in exercise of imagination contributes largely to transitory, and even to continuous, delusion. On delusions of the insane, James, *Psychol.*, i. 375; ii. 114.

Abnormal use of the sensory system, such as in hypnotic experiments, increases the risk of delusion, by tending to induce unnatural nerve excitation. The phenomena of dreaming illustrate the power of the imagination in giving objective value to mere sensory impression, or to psychic feeling.

DEMIURGE (*δημιουργός*, a handicraftsman, a workman).—Originally, a skilled workman; used to describe God as the maker or "Architect" of the world. Socrates and Plato represented God under this image,—the World-Builder. For Plato's treatment, see specially the *Timæus*; Ueberweg's *Hist.*, i. 123; Schwegler's *Hist.*, 79, 82.

DEMONSTRATION (*demonstro*, to point out; to cause to see).—Proof either from first principles, or from observation. To draw from a universal truth consequences which necessarily follow, is *demonstration*. To connect an occurrence with a principle or law, to show that the principle or law is applied or realised in a particular case, is to demonstrate. An induction from particulars, such as warrants our postulating a law of nature, is another phase of demonstration. The result is science.

General truths arrived at by induction in the sciences of

observation are assured acquisitions, though our knowledge may not be complete. It may admit of increase or be modified by new discoveries, but the knowledge which *demonstration* gives is fixed and unalterable.

A *demonstration* may therefore be defined as a reasoning by which a conclusion is shown to be contained in facts or in some other proposition, whose truth and certainty being acknowledged, the additional proposition must also be admitted.

Demonstration is *direct* or *indirect*; *direct*, when, starting from a general truth, we come to a particular conclusion; or starting from the subject and its attributes, we arrive at a general principle. *Indirect demonstration* is when we admit hypothetically a proposition contradictory of that which we wish to demonstrate, and show that this admission leads to absurdity. This is *demonstratio per impossibile*, or *reductio ad absurdum*.

The theory of *demonstration* is given in the *Organon* of Aristotle, "since whose time," says Kant, "Logic, as to its foundation, has gained nothing."

DEONTOLOGY (τὸ δέον, what is due, or binding; proper, or suitable; λόγος, science).—Theory of duty.

"*Deontology*, or that which is proper, has been chosen as a fitter term than any other which could be found to represent, in the field of morals, the principle of *utilitarianism*, or that which is useful." Bentham, *Deontology; or, the Science of Morality*, i. 34. Yet, the author would have the word "ought" banished from the science.

"The term *deontology* expresses moral science, and expresses it well, precisely because it signifies the *science of duty*, and contains no reference to utility." Whewell, preface to Mackintosh's *Prelim. Dissert.*, p. 30.

"The ancient Pythagoreans defined virtue to be Ἐξίς τοῦ δέοντος; the habit of duty, or of doing what is binding, the oldest definition of virtue of which we have any account, and one of the most unexceptionable which is yet to be found in any system of philosophy." Stewart, *Active and Moral Powers*, bk. iv. ch. 5, § 2. Hamilton, *Reid's Works*, p. 540, note.

DESIGN (*designo*, to mark out).—Adaptation of means to ends. The evidence of design consists in the marks, found in

objects or events, of adaptation to the attainment of definite results. A philosophic theory of such evidence is named Teleology (τέλος, end; and λόγος, science), the theory of ends, awkwardly named "final causes." A teleology is essential to the interpretation of Nature.

"What is done, neither by accident, nor simply for its own sake, but with a view to some effect that is to follow, is said to be the result of *design*. None but intelligent beings act with *design*. . . . Therefore, whenever we see a thing . . . which is evidently made for the sake of the effect which it produces, we feel sure that it is the work of a being capable of thought." Taylor, *Elements of Thought*.

Among the "arguments for the being of God," "the argument from design" is at basis the affirmation that nature needs an explanation beyond itself. There is in this no argument really, but a simple statement of the inductions of Science. The intelligence which recognises this, can find the solution of its problem only in self-existent intelligence.

Kant's criticism of the argument from design, as proving only an architect of the universe, merely indicates that our knowledge of the cause is according to our knowledge of the effect. *Pure Reason*, Transcendental Dialectic, ch. iii., Meiklejohn's transl., p. 370; *Werke*, ed. Rosenkranz, ii. 470.

On the argument for the being of God from the adaptation of means to ends in the universe, Xenophon, *Memorabilia of Socrates*, bk. i. ch. iv.; Buffier, *Treatise on First Truths*; Reid, *Intellectual Powers*, essay vi. ch. vi.; Stewart, *Active and Moral Powers*, bk. iii. ch. ii.; Paley, *Nat. Theol.*; *Bridgewater Treatises*; *Burnett Prize Essays*; Mill, *Essays on Religion*, p. 167; Janet's *Final Causes*; Lotze's *Philosophy of Religion*; Hutchison Stirling, *Darwin and Design*; Knight's *Aspects of Theism*; Davidson's *Theism and Human Nature*.—*Vide* TELEOLOGY.

DESIRE.—Craving, as in appetite; sense of want, impelling towards satisfaction; longing for the unattained, characteristic of the rational nature. Every portion of our nature, being dependent on the external, proves a source of desire. Each desire thus becomes an index of dependence on existence apart

from our own life. The physical depends on nutriment; the emotional on social intercourse; the understanding on observations for gratification of the desire of knowledge. The rational life itself not only generates expectation, but longs after attainment of an ideal, the image of which rises from time to time out of the depths of the soul, so as to influence conscious effort. In all its forms, desire is craving for a phase of experience in which sense of want may give place to sense of the agreeable;—satisfaction for some part of our nature;—or realisation of “The Ideal,”—satisfaction for our nature as a whole.

Desire, whether its origin be in the body or in the mind, is in every case a mental condition, under personal control, and is liable to increase or to diminution in accordance with the action of intelligence.

Even when the thing *desired* is known, it is not solely in consequence of knowing its qualities that we desire it, but because of pleasure anticipated. Our *desires* are *natural* or *acquired*; and are in their action *instinctive*, arising spontaneously, but liable to be strengthened or weakened, according to the amount of exercise allowed to them.

The relation of Desire to Will, is according to the relation of the former to Intelligence. In a rational nature, all desire is modified, stimulated or repressed, according as intelligence occupies itself with the object, and with the gratification it is fitted to produce.

Green proposes to restrict the term Desire to such longing as concerns itself with “self-realisation,” but this involves ambiguity in the use of “self,” which seriously compromises philosophy of Ethics. Self-indulgence is not self-realisation.

Green would distinguish mere natural impulses which involve only a *feeling* of self, from Desires proper which imply the *consciousness* of self. “The latter involves a consciousness of its object, which in turn implies a consciousness of self. In this consciousness of objects which is also that of self, or of self which is also a consciousness of objects, we have the distinguishing characteristic of desire (as we know it), of understanding and of will, as compared with those processes of the animal’s soul with which they are apt to be confused. And

this consciousness is also the common basis which unites desire, understanding, and will with each other." *Prolegom. to Ethics*, bk. ii. ch. ii. p. 123 ; cf. Sidgwick, *Methods of Ethics*, bk. i. ch. iv.

In all its phases, Desire must be contemplated as a force in consciousness. The instinctive or spontaneous feature appears in that which depends on constitution, natural or modified, independently of intelligence and will. Beyond this, its force at any moment may depend on exercise of intelligence and will ; and on the spontaneous rise of an ideal of life, voluntarily made efficient in self-regulation. In this last case, as described by Kant, the representation of law is the sole motive of the Will. *Desire and Volition*, Bradley, *Mind*, xiii. 1.

Purely as a matter of psychology, Green's references to self introduce novel entanglements as to "self-seeking." The Ego is "the self-seeking self," inasmuch as all motive has for its end self-realisation. According to Green, Desire becomes the motive for willing. It is not one of the various motives, "desires and aversions," "which influence a man ; but the consciousness of an object which the man seeks in doing the act." This object "is not merely one of the objects of desire or aversion, of which the man was conscious before he willed. It is a particular self-satisfaction to be gained in attaining one of these objects, or a combination of them." *Prolegomena to Ethics*, 107. It remains to account for "the various motives, *i.e.*, desires and aversions ;" and for the choice between these, leading to a preference for one of them. How can "benevolence" have its natural place in the life of a "self-seeking self," so as to allow that "the good of others" is an end in itself? Höffding's *Psychol.*, 235 ; Sully's *Human Mind*, ii. 196 ; Baldwin's *Hand-Book of Psychology*, pt. ii. p. 320 ; James, *Princ. of Psychol.*, ii. 549 ; Article by Bradley, *Mind*, xiii. 1 ; and another by Sidgwick, *Mind*, n.s. i. 94.

DETERMINISM (*determino*, to bound, or limit).—The theory that all our volitions are ruled by the force of motives, which produce their results as invariably as physical forces effect their ends. Determinism is the later designation, accepted as a substitute for Necessitarianism. The latter term has been rejected by Mill, because it seems to imply external

constraint, or some necessity in Nature. A Theological Determinist might grant this view, while a Biological Determinist would reject it. Etymologically, the gain is small, though the distinction is important. The earlier usage points to the force; the later, to the limits; but it remains that an explicit statement be made of the force or forces operating, and of the limits of activity contemplated. Mill's discussion is found in his *Exam. of Hamilton's Philos.*, 552; and *Logic*, bk. vi. c. 2.

Mill's statement is that Necessity, "in this application, signifies only invariability;" the conditions being the same, the effect will be the same, however often these conditions operate. But, recurrence being granted, the problem remains, what is rational procedure? Specially, what is volition as a fact in consciousness? To this Mill answers:—"A volition is a moral effect, which follows the corresponding moral causes as certainly and invariably as physical effects follow their physical causes." Given the feeling, the associations, the habits, the character, and the external circumstances of the agent, his volition is determined by these conditions. The question remaining is, what then are moral effects, and moral causes, as distinguished from physical?

Mill objects to the application of "necessity" to physical effects, quite as much as to moral. Both are in the same sense determined; both are marked by invariability in sequence. A like effect follows a like cause, however often it operates. "Whether it *must* do so, I acknowledge myself to be entirely ignorant, be the phenomena moral or physical; and I condemn accordingly the word *Necessity* as applied to either case. All that I know is that it always *does*." *Exam.*, 562.

There is no theory of Indeterminism. Will does not work *in vacuo*. There is no volition apart from motive. That like produces like, is matter of agreement; "invariability," in this sense, is granted by all. Those who say that the Will is not necessitated, admit that the Will is so far determined, in as much as conditions of volition are fixed independently of our choice. The word "Determinism" does not escape ambiguity, even when its theoretic interpretation is appended. Difficulty is not obviated by enumeration of the conditions contemplated,—what

Lewes has called the "psycho-statical conditions." The statement as to voluntary activity remains incomplete, when we refer to "everything that moves the mind," or "the strongest motive," or "the single desire of self-realisation," or "all that is before the mind at once," or the one "object" of thought, "no matter how complex." Psychologists need to include the "mind" before which the "object" is, and to interpret the process of "thought," concerned with the decision to act. Aristotle's "deliberate preference," *Nic. Ethics*, bk. iii. c. 5. Conditions physical and psychical are essential to the interpretation of human activity. The agent's "character, habits, memory, education, previous experience, and momentary mood" must be taken into account. But thought about action is the key of the question, influenced as such thought is by antecedent conditions in consciousness. Aristotle's *Nicom. Ethics*, bk. iii. ch. 5; *Letters of Leibnitz and Clarke*; Edwards, *The Will*, pt. i. sec. 5; Hobbes, *Leviathan*, i. 6; Reid's *Active Powers*, Essays ii. and iv.; Kant's *Theory of Ethics*, *Metaph. of Ethics*, and *Kritik of Practical Reason*; Hamilton's *Metaphysics*, ii. 410; Mansel's *Metaphysics*, 791; Herbert Spencer's *Data of Ethics*, 113; Sidgwick, *Methods of Ethics*, bk. i. c. 5; Bain, *Emotions and Will*, bk. i. c. 5; Leslie Stephen, *Science of Ethics*, c. vii. div. 2; James, *Principles of Psychology*, vol. ii. 569. Porter's *Elements of Moral Science*, pt. i. ch. iv.; Calderwood's *Handbook of Moral Philosophy*, pp. 170-205; Articles by Shadworth Hodgson, *Mind*, v. 226; x. 532; xii. 161.

DEVELOPMENT.—The unfolding of life from germinal form, till maturity is reached. From germ-plasm, with a single vital centre, there emerges all the characteristic features of the species to which the life belongs. This natural process, essential to all life, has been used as symbolic for illustration of the hypothesis of the evolution of species, from lower biological orders.

"Man is developed from an ovule, about the 125th of an inch in diameter, which differs in no respect from the ovules of other animals. The embryo itself at a very early period can hardly be distinguished from that of other members of the vertebrate kingdom." Darwin, *Descent of Man*, 1888, p. 9.

DIALECTIC (διαλέγω, to distinguish, to converse, to reason; διαληκτικὴ τέχνη, the art of picking out and combining; German, *Dialektik*).—The mind's procedure in reasoning, combining things in accordance with rational conditions, and reaching one thing through another. Dialectic is subsequent to observation, being reasoning on given data.

“The Greek verb *διαλέγεσθαι*, in its widest signification, (1) includes the use both of reason and speech as proper to man. Hence, *dialectics* may mean Logic, as including the right use of reason and language. (2) It is also used as synonymous with the Latin word *dissere*, to discuss or dispute; hence, *dialectics* has been used to denote the Logic of probabilities, as opposed to the doctrine of demonstration and scientific induction. (3) It is also used in popular language to denote Logic properly so called.” Poste, introd. to Aristotle's *Poster. Analyt.* “Dialectical” is used as equivalent to controversial. Adamson, Article, “Logic,” *Encyc. Brit.*, 9th ed.

Platonic usage originates in that of Socrates. “Xenophon tells us (*Mem.*, bk. iv. ch. v. sec. 12) that Socrates said—‘That *dialectic* (τὸ διαλέγεσθαι) was so called because it is an inquiry pursued by persons who take counsel together, separating the subjects considered according to their kinds (διαλέγοντας). He held accordingly that men should try to be well prepared for such a process, and should pursue it with diligence. By this means he thought they would become good men, fitted for responsible offices of command, and truly *dialectical*’ (*διαλεκτικωτάτους*). And this is, I conceive, the answer to Mr Grote's complaint of the unsatisfactory nature of this account of the etymology of the word.” Whewell on “Plato's Notion of Dialectic,” *Trans. of Camb. Phil. Soc.*, vol. ix. pt. iv.

While Socrates sought to reduce ethical phenomena to their general notions, Plato not only universalised the method, applying it to the whole of being, but also sought to reduce individual notions to system, exhibiting them as a *world* of ideas. Dialectic is, according to Plato, the method of the highest or purely intellectual knowledge, in which “reason avails itself of hypotheses not as first principles, but as genuine hypotheses, that is, as stepping-stones and impulses, whereby it

may force its way up to something not hypothetical, and arrive at the first principles of all things, and seize it in its grasp; which done, it turns round, and takes hold of that which takes hold of this first principle, till at last it comes to a conclusion, calling in the aid of no sensible object whatever, but simply employing abstract self-subsisting forms, and terminating in the same." *Republic*, bk. vi. p. 511; cf. Zeller's *Plato*, pp. 150 ff. and 196 ff., English transl. Jowett's *Republic of Plato*, 212. Under this method, "though men make use of the visible forms, and reason about them, they are thinking not of these, but of the ideals which they resemble."

Aristotle opposes *Dialectic* to *Apodeictic*; *Topics*, bk. i. ch. i. "Dialectic, with Aristotle, is the system resulting from the attempt to reduce to rule, or generalise, modes of argument which rest upon current received doctrines as principles, which move within the region of interests about which current opinions *pro* and *con* are to be found, and which terminate not in the decisive solution of a problem, but in clearing the way for a more profound research, or at least in the establishment of the thesis as against an opponent." Adamson, art. "Logic," *Ency. Brit.*, 9th ed.

In the terminology of Kant, *Dialectic* is a division of Logic subsequent to Analytic. "With regard to our cognition in respect of its mere form (excluding all content)," logic "exhibits the universal and necessary laws of the understanding." Analytic "resolves the whole formal business of understanding and reason into its elements, and exhibits them as principles of all logical judges of our cognitions." In this view, logic is "a negative test of truth." When logic is pressed beyond this, so as to be used as an organon or instrument for ascertaining truth, it is *Dialectic*, a logic of illusion, in which sophistries may have a large dwelling-place. This is the danger adhering to "Dialectics." Against such use of formal logic, Kant protests, as Logic "teaches us nothing whatever respecting the content of our cognitions, . . . any attempt to employ it as an instrument (organon), in order to extend and enlarge the range of our knowledge, must end in mere prating." *Pure Reason*, Intro. Meiklejohn's Tr., pp. 52, 53. In the development

of a Transcendental Logic, *Dialectic* is with Kant a "Critique of dialectical illusion." "In transcendental logic we isolate the understanding, and select from our cognition merely that part of our thought which has its origin in the understanding alone." In transcendental dialectic we have "a critique of understanding and reason in regard to their hyper-physical use." Dialectic, in the Kantian sense, has thus to do with 'a natural and unavoidable illusion, which rests upon subjective principles, and imposes these upon us as objective.' This illusion 'does not cease to exist, even after it has been exposed, and its nothingness clearly perceived by means of transcendental criticism.'

"Besides, there is a natural and unavoidable dialectic of pure reason—not that in which the bungler, from want of the requisite knowledge, involves himself; nor that which the sophist devises for the purpose of misleading; but that which is an inseparable adjunct of human reason, and which, soon after its illusions have been exposed, does not cease to deceive, and continually to lead reason into momentary errors, which it becomes necessary continually to remove." *Pure Reason*, Meiklejohn's transl., p. 212. This *Dialectic* consists in the *transcendent* use of principles whose only legitimate use is *immanent* or *transcendental*. As transcendental, it is "the exposure of the natural and unavoidable illusion that arises from human reason itself, which is ever inclined to look upon phenomena as things in themselves, and cognitions *a priori*, as properties adhering to these things, and in such way to form the supersensible, according to this assumed cognition of things in themselves."

For Hegel, Dialectic is the one method of philosophising. It is the interpretation of Being, by reference to the logical relations of the conditions of thought itself.

Hegelianism is a philosophy worked out by the dialectic of the rationalising process, embracing concrete existence according to the dialectic relation of the categories. The thinking view of things is the real. It regards *Dialectic* as at once the method of knowledge, and of the evolution of the universe itself. The universe is the evolution of absolute thought: knowledge is the retracing of that evolution in the thought of

the individual. Philosophy is the thinking view of things ; the categories are the conditions of knowledge ; these are empty until filled with the concrete ; logical advance is a process of inclusion ; every movement is constituted by three moments—affirmation, difference, absorption. True Knowledge is synthesis of affirmation and its contrary. “Every thing runs through its moments. These constitute the universal movement.” Stirling, *Secret of Hegel*, i. 224 ; *Logic of Hegel*, Wallace, pp. 125–129 ; Caird’s *Hegel*.

For Hegel, Dialectic “is the principle of *compensation*, which shows the other side, or negative, of things. . . . The primary aspect of each form of things presents it as an affirmative reality ; the second inspection shows that there is contradiction in what we saw ; . . . and the revelation of this undiscovered feature leads to a synthesis, . . . by which negative and positive are assimilated into each other.” Wallace, *Logic of Hegel*, Proleg., clxxx.

“The Dialectic method does not necessarily involve the identity of opposites, in the sense that one element in its own assertion supplements itself by self-denial ; and it is possible to take a simpler view which keeps clear of this difficulty. We may suppose that the reality has before it, and contemplates itself in an isolated *datum*. What comes next is, that the datum is felt insufficient, and as such is denied. But, in and through this denial, the reality produces that supplement which was required to complete the *datum*, and which very supplement, forefelt in the mind, was the active base of dissatisfaction, and the consequent negation.” Bradley, *Logic*, 382.

Hegel claims that his method is “the only true method,” “because it is identical with its object and content, for it is the content in itself, the Dialectic which it has in itself” that constitutes its evolution. *Einleitung, Wissenschaft der Logik, Werke*, iii. 42 ; Commentators on Hegel, Stirling’s *Secret of Hegel*, ii. 398 ; Harris, *Philosophic Method, Hegel’s Jour. Speculat. Philos.*, viii. 35 (1875) ; Bradley, *Logic*, 379 ; Crit. of the method, Lotze’s *Metaphysic*, transl., p. 16 ; James, *Mind*, vii. 186 ; Seth, *Mind*, xiii. 116 ; “Hegel and his recent critics,” Haldane, *Mind*, xiii. 585 ; MacTaggart, *Mind*, n.s. i. 56 and 188.

DICHOTOMY (*διχοτομία*, cutting in two, division into two parts, logically) is a bi-membral division. It consists in taking a term and its contradictory; and as these must, by the law of Excluded Middle, exhaust the possibilities, it is called *Exhaustive Division*.

DICTION DE OMNI ET NULLO may be explained to mean "whatever is predicated (affirmed, or denied) universally of any class of things, may be predicated in like manner (affirmed, or denied) of anything contained in that class." This axiom is generally considered to be the basis of syllogistic inference. According to Mill, "the *dictum de omni* merely amounts to the identical proposition that whatever is true of certain objects is true of each of those objects. If all ratiocination were no more than the application of this maxim to particular cases, the syllogism would indeed be, what it has so often been declared to be, solemn trifling. . . . To give any real meaning to the *dictum de omni*, we must consider it not as an axiom, but as a definition; must look upon it as intended to explain, in a circuitous and paraphrastic manner, the meaning of the word *class*." *Logic*, bk. ii. ch. i. sec. 2.

DICTION SIMPLICITER.—When a term or proposition is to be understood in its plain and unlimited sense, it is used *simpliciter*; when with limitation or reference, it is said to be used *secundum quid*. For the fallacy of reasoning, *a dicto simpliciter ad dictum secundum quid*, and the converse, see FALLACY.

DIFFERENCE (*διαφορά*, *differentia*).—Objects when compared, besides having qualities which are common to both, may be distinguishable by diversities.

Accidental differences distinguishing objects whose essence is common, are *individual* or *numerical differences*. *Differences* in nature, are *generic* or *specific differences*. The former are passing and variable; the latter are permanent, furnishing the grounds of all *classification, division, and definition*.

The *difference* is that part of the condition of the genus-term naturally adapted to separate things under the same genus. Hence the rule that definition must state the proximate genus and the specific difference. Porphyry, introd. to *Categor.*, ch. iii.; Aristotle, *Top.*, lib. viii. cap. i. ii.

“Difference or *differentia*, in Logic, means the formal or distinguishing part of the essence of a species.” Whately, *Logic*, bk. ii. ch. v. sec. 4.

“A peculiarity of differential discriminations is that they result in a perception of differences which are felt as greater or less one than the other. Entire groups of differences may be ranged in a series: the musical scale, the colour scale, are examples.” This gives a “sense of serial increase.” Besides this serial arrangement, it must be considered that “objects differ from each other in divergent directions.” James, *Principles of Psychology*, i. 491, 2.

DIFFERENTIATION.—In Biology, “the separation or discrimination of parts or organs which in simpler forms of life are more or less united.” Darwin, *Origin of Species*, Glossary, 407.

According to the doctrine of Evolution, the law of existence is a constant and contemporaneous *Differentiation* and *Integration*, or change from a state of Homogeneity to one of Heterogeneity, and *vice versâ*. Thus from the Indefinite the Definite is evolved. Hence Spencer’s definition of *Evolution*:—“Evolution is an integration of matter and concomitant dissipation of motion; during which the matter passes from an indefinite incoherent homogeneity to a definite coherent heterogeneity; and during which the retained motion undergoes a parallel transformation.” *First Principles*, pt. ii. ch. xvii. sec. 145; *cf.* ch. xiv.—xvii.

DILEMMA is a complex syllogism, whose major premiss is a conjunctive or conditional proposition, whose minor premiss is a disjunctive proposition, and whose conclusion is either categorical or disjunctive. The dilemma takes its name from the character of the *conclusion*. If this is affirmative, the dilemma is in the *modus ponens*, and is called *Constructive*; if the conclusion is negative, the dilemma is in the *modus tollens*, and is called *Destructive*. If the conclusion is categorical, the dilemma is called *simple*; if the conclusion is disjunctive, the dilemma is called *complex*. There are thus three kinds of dilemmatic arguments,—the *Constructive*,—*simple* and *complex*,—and the *Destructive*, which is always *complex*.

The *dilemma* is used to prove the absurdity or falsehood of some assertion. A conditional proposition is assumed, the antecedent of which is the assertion to be disproved, while the consequent is a disjunctive proposition enumerating the suppositions on which the assertion can be true. Should the argument necessitate the rejection of the supposition, the assertion also must be rejected.

This syllogism was called the *Syllogismus Cornutus*, the two members of the consequent being the horns of the *dilemma*, on which the adversary is caught between (*διαλαμβάνεται*) two difficulties. And it was called *dilemma quasi, δις λαμβάνων*; according to others it was so called from *δίς*, twice, and *λήμμα*, an assumption, because in the major premiss there are generally two antecedents, which in the minor become two assumptions.

DISCURSIVE (*discurro*, to run in different directions).—Characteristic of Thought-process, as opposed to *Intuitive* knowledge. Discursive Thought is that which proceeds by comparison of notions—from reason to consequence, from premises to conclusion.

Kant distinguishes between the *discursive* understanding of man, proceeding by use of categories, and the *intuitive* understanding of God. *Pure Reason*, Meiklejohn's transl., p. 43.

DISJUNCTIVE.—The Disjunctive *Proposition* is a statement of alternatives as predicable of the subject, as *A is either B or C*. The Disjunctive *Syllogism* has for its major premiss a disjunctive proposition, its minor premiss and conclusion being categorical. It has *two moods*, according as the conclusion is *affirmative* or *negative*; and as the minor premiss of the affirmative mood must be negative (the denial of the one alternative), and the minor premiss of the negative must be affirmative (the affirmation of the one alternative), these moods are called respectively the *modus tollendo ponens*, and the *modus ponendo tollens*.

DISPOSITION (*διάθεσις, dispositio*), literally, the act of placing things apart.—(1) "The arrangement of that which has parts, either according to place, to potentiality, or to species." Aristotle, *Metaphysics*, lib. iv. cap. xix. (2) Psychologically, an inclination of our nature toward certain objects, prompting to

action. (3) As applied to personality, the prevailing tendency. "Disposition" expresses bias, or tendency to be moved by some one impulse.

DISSOLUTION (*dissolvo*, to loosen asunder, to separate).—The breaking up of a constituted or organic whole. "Dissolution is the absorption of motion, and concomitant disintegration of matter." Spencer, *First Principles*, pt. ii. ch. xii.

"When Evolution has run its course, the aggregate thereafter remains subject to all actions in its environment, which may increase the quantity of motion it contains, and which in the lapse of time are sure, either slowly or suddenly, to give its parts such excess of motion as will cause disintegration." Spencer, *First Principles*, pt. ii. ch. xxiii. According to Spencer, the history of the universe is one of "alternate eras of Evolution and Dissolution."

DISTANCE.—The relative position of bodies in space is called their *distance* from one another. Psychologically this belongs to interpretation of our sense-perceptions, specially of those obtained by vision.

"Position can never be a sensation, for it has nothing intrinsic about it; it can only obtain between a spot, line, or other figure, and extraneous co-ordinates, and can never be an element of the sensible datum, the line or the spot, in itself. Let us then say that thought alone can unlock the riddle of space." James, *Prin. of Psychol.*, ii. 149; Abbott, *Sight and Touch*; Schopenhauer, *Wilt als Wille*, ii. 44.

Length, Breadth, and Depth, being the three optical dimensions, distance becomes involved in our interpretations of the relations of the length-feeling, breadth-feeling, and depth-feeling.

"The measurement of distance is, as Berkeley truly said, a result of suggestion and experience. But visual experience alone is adequate to produce it." James, *Prin. of Psychol.*, ii. 215.

"A surface is that which separates two different regions of space, the difference between them being that something is in one, and not in the other." "It is the boundary between them which marks them off." "We have three kinds of *room*—solid-room, surface-room, and line-room; and three several boundaries to them—surface, line, and point." Clifford, *Seeing*

and Thinking. Höfding's *Psychol.*, 192; Sully, *Human Mind*, i. 224.

DISTINCT.—A concept is said to be *distinct* when its several constituent parts can be distinguished from one another. This use of the term was common with Descartes and Leibnitz. — *Vide* CLEAR.

DISTINCTION (*διαίρεσις*, division; *distinguo*, to prick asunder, to separate).—The mark which separates one thing from another; the act of drawing the severance between sensations, qualities, or objects. Psychologically, it is the exercise of intelligence in the interpretation of diversities of experience in the contemplation of objects.

DISTRIBUTION.—"In Logic, a term is said to be *distributed* when it is employed in its full extent, so as to comprehend all its significates—everything to which it is applicable." Whately, *Logic*, index, and bk. ii. ch. iii. sec. 2. The distribution of the *subject* is always evident, as it is qualified, "All men are mortal." That of the *Predicate* is not obvious, as it is not quantified. But the *quantity* of the predicate is implied in the *quality* of the proposition, the predicate of *affirmative* propositions being undistributed, that of *negative* propositions distributed. — *Vide* QUANTIFICATION OF PREDICATE.

DIVISION (*diviso*).—*Physical Division* or *Partition* is the distribution of a *substance* into its parts. *Division proper*, or *logical Division* is the distribution of *genus* and *species* into what is under them; as when *substance* is divided into *spiritual* and *material*. The members which arise from *division* retain the name of their whole, but not those from *partition*.

Logical Division is "the complete and orderly statement of the parts of the extent of a notion, or the separation of the genus into its species." Ueberweg, *System of Logic*, p. 177, Lindsay's transl.

The confusion of different principles of division leads to the most frequent error in Division, viz., *Cross Division*, which occurs when the species are not mutually exclusive.

DOGMA.—A formulated truth, or article of belief, regarded apart from its evidence, or its relations as a reasoned conclusion, to other aspects of truth.

DOGMATISM (*δόγμα*, from *δοκέω*, to think).—The affirmation of a principle or dogma as true, without evidence, or sufficient reason. “Philosophers,” says Lord Bacon, “may be divided into two classes, the *empirics* and the *dogmatists*. The empiric, like the ant, is content to amass, and then consume his provisions. The dogmatist, like the spider, spins webs of which the materials are extracted from his own substance, admirable for the delicacy of their workmanship, but without solidity or use. The bee keeps a middle course—she draws her matter from flowers and gardens; then, by art peculiar to her, she labours and digests it. True philosophy does something like this.” *Aphorisms*, *Works*, ii. 445.

Kant defined *dogmatism*, “the presumption that we are able to attain a pure knowledge consisting of concepts and guided by principles which the reason has long had in use, without any inquiry into the *manner* or into the *right* by which it has attained them.” Preface to 2nd ed. of *Pure Reason*, Meiklejohn’s, xxxviii.; Max Müller’s, i. 383. *Dogmatism* is the *uncritical* procedure of Reason. The school of philosophy which Kant had specially in view when speaking of the *Dogmatists*, consists of the followers of Leibnitz and Wolff.

DOUBT (*dubito*, to go to and fro, to waver).—Indecision, or absence of settled conviction, or definite conclusion upon a subject. It may even go as far as an affirmation that a dogmatic conclusion is unattainable.

Doubt is that state of mind in which we hesitate as to two contradictory conclusions—having no preponderance of evidence in favour of either. Philosophic *doubt* has been distinguished as *provisional* or tentative, *definitive* or final. *Definitive doubt* is *Scepticism*. Doubt as a philosophical method is a voluntary suspending of judgment, in order to come more clearly to a conclusion. This was the philosophical method of Descartes, who began by doubting everything, laying aside all preconceived ideas, and admitting none as true till he had subjected them to a rigorous examination, with the express object of thereby reaching the indubitable. Descartes’ *Method*, pt. ii. This is the *Cartesian Doubt*.

Intellectual Doubt (not arising from moral causes) is a

product of the understanding itself, to be escaped, within the area of possible knowledge, only by rigid use of the understanding, according to the laws of its own procedure. Balfour, *Defence of Philosophic Doubt*, examining the Logic of Empiricism and of Transcendentalism. "The true opposites of belief, psychologically considered, are doubt, inquiry, not disbelief." James, *Prin. of Psychol.*, ii. 284.—*Vide* AGNOSTICISM.

DREAMING.—The conscious play of thought, feeling, and fancy during physical repose in sleep. The state of sleep, so far from being a state of unconsciousness, is more properly a state of restricted consciousness, and thereby intensified mental activity. On account of coherence of incident and occupations, experience is recalled and circumscribed as "a dream" or single state.

While vision is inactive, other forms of sensibility are open to excitation. Accordingly, dreams often take their character from physical conditions, as well as from preceding occupations of mind. In many cases, when originated by physical conditions, they assume the form of rationalised explanation of sensory experience.

For a philosophy of dreaming, as a department of psychological investigation, a wide induction is needful to warrant definite conclusions. After marking the exact difference between the waking and sleeping state, the main questions involved are these:—(1) How far is the sensory system inactive in sleep? (2) Does mental activity during sleep depend on sensory impression and association alone, or may it be voluntarily directed? (3) To what extent is a rational coherence maintained in dreams? (4) How is the absurdity of association and incongruity of structure in many dreams to be accounted for? See Hamilton, *Lects. on Metaph.*, lects. xvii. and xxxiii.; Carpenter, *Mental Physiology*, ch. xv., § 482, p. 584; Calderwood, *Mind and Brain*, ch. xiii.

The phenomena of dreaming establish the mind's activity during sleep. The question of continuity of experience is involved in difficulty, on account of the limits of our recollections. Cycles, *Human Experience*, 261. On the other hand, the close of day does not present a complete recollection, any

more than the morning waking hour. Hamilton's experiments favour the conclusion that the mind is actively employed whenever roused from sleep by interposition of another.

"The world of dreams is our real world whilst we are sleeping, because our attention then lapses from the sensible world. Conversely, when we wake, the attention usually lapses from the dream-world, and that becomes unreal." James, *Principles of Psychology*, ii. 294. Ziehen's *Intro. to Physiol. Psychol.*, p. 236.

The phenomena of Hypnotism—artificially induced sleep—go to show that the mind readily resumes the associations previously connected with an analogous physical state. These facts are additionally striking, because of the extended experiment possible under stimulus of suggestion from an operator.

DUALISM, a theory of existence tracing occurrences to duality of being. As concerning *existence* as a whole, Dualism describes the theory which maintains *Creation* of finite existence, *i.e.* of The Universe, as distinct from the First Cause, which is the Eternal. "The Universe thus regarded, is the known, through experience, and our interpretation of it. The First Cause is the object of faith; in the sense above given, the Unknown; in respect of a teleological doctrine of nature, the Known.

The more extended Dualism of ancient speculation, postulated Dualism in the form of a Dual Eternity,—the eternity of matter as well as of spirit.

In relation to human life, a Dualistic theory maintains distinctiveness of nature belonging to body and mind. A consequence is denial of continuity of being in natural history, as held under the more advanced form of the hypothesis of Evolution.

In relation to *Knowledge*, Dualism is the essential contrast between knower and known. "The Dualism of object and subject and their pre-established harmony are what the psychologist, as such, must assume, whatever ulterior monistic philosophy he may, as an individual who has the right also to be a metaphysician, have in reserve." James, *Prin. of Psychol.*, i. 220.

Dualism was held by Zoroaster, who maintained the existence

of a good principle and an evil principle, and thus explained the mixed state of things which prevails. Ueberweg's *Hist.*, i. 17. It would appear, however, according to Zoroaster, that both Ormuzd (the Good) and Ahriman (the Evil) were subordinate to Akerenes, or the supreme Deity, and that it was only a sect of the Magi who held the doctrine of *dualism* in its naked form. Their views were revived in the second century by the Gnostics, *ib.*, i. 280; and in the third century were supported by Manes, whose followers were called Manicheans, *ib.*, i. 290. The Manichean doctrine of the eternity of good and evil, has found acceptance with J. S. Mill, *Essays on Religion*, 116; "Realism and Monism Inconsistent," see Herbert's *Modern Realism Examined*, c. iii. § 6; "Dualism as related to religious thought," see Caird, *Evolution of Religion*.

DURATION.—Continuity of existence, as recognised in consciousness. "It is evident, to any one who will but observe what passes in his own mind, that there is a train of ideas which constantly succeed one another in his understanding, as long as he is awake. Reflection on these appearances of several ideas, one after another, in our minds is that which furnishes us with the idea of succession; and the distance between any parts of that succession, or between the appearance of any two ideas in our minds, is that we call duration." Locke, *Essay*, bk. ii. ch. xiv. sec. 3.

According to Kant, time and space "are the two pure forms of all intuition." *Pure Reason*, Meiklejohn's transl., p. 33. "Our apprehension of the manifold in a phenomenon is always successive;" and "it is only by means of the permanent that existence in different parts of the successive series of time receives a *quantity*, which we entitle duration." *Ib.*, p. 137.

"Neither time nor space has any meaning excepting in respect of our experience of something else." Cyples, *Human Exper.*, 584.

"It is only as parts of the *duration-block* that the relation of *succession* of one end to the other is perceived. We do not first feel one end, and then feel the other after it, and from the perception of the succession infer an interval of time between, but we seem to feel the interval of time as a whole, with its

two ends embedded in it. The experience is from the outset a synthetic datum, not a simple one; and to sensible perception its elements are inseparable, although attention, looking back, may easily decompose the experience, and distinguish its beginning from its end." James, *Principles of Psychol.*, i. 610.

On the relation of measurement of duration to the "memory-image," and the muscular sense in managing the sense organs, and in respiration, Münsterberg, *Beiträge zur experimentellen Psychologie*, Heft 2, 1889; Ward, "Psychology," *Encyc. Brit.*, 9th ed.

DUTY.—Oughtness expressing the command characteristic of moral law. That which we are under *obligation* to do. Duty is uniform, according to what law requires and forbids; variable, according to diverse powers and circumstances.

From the standpoint of law, it is the subordination of rational life to laws of right conduct, an imperative which directly and singly commands. From the standpoint of life, it is the measurement, by the rational agent himself, of obligation in view of law and of his own circumstances.

Of Zeno, the Stoic, it is said "that he was the first who ever employed the word duty (*καθῆκον*), and who wrote a treatise on the subject." Diog. Laert., lib. vii. Price, *Principal Questions of Morals*, has used *oughtness* as synonymous with *rightness*. For Kant's celebrated address to Duty, see *Kritik der Pract. Vernunft*; *Werke*, ed. Rosenkranz, viii. 214; Kant's *Ethics*, Semple's Tr., 3rd ed. p. 127; Abbot, 2nd ed., p. 256; Abbot, 3rd ed., 180.

A duty and *a right* are correlative. Obligation to act implies the title to liberty in acting. So it is with the relative duties. If it be the *duty* of one party to do something for another, it is the *right* of the other to expect or exact the doing of it. Bradley, *Ethical Studies*, Essays iv. and v.; Spencer, *Data of Ethics*, p. 125.

The common use of the notion Duty is an essential fact for Epistemology. No theory of Knowledge is adequate which does not account for it. Kant's analysis of the notion represents it as "the necessity of an act, out of reverence felt for law." It appears native to mind as transcending experience, it is "a categorical imperative of reason." On this test,

an intuitive Knowledge of first truths must be included in a theory of human Knowledge.

The fact that the ethical ideal continually transcends personal attainment constitutes a special difficulty for an Experiential Epistemology. How shall we deduce the "ought" from what "is"? "A proposition of which the predicate is expressed by the words *ought*, or *should be*, is generically different from one which is expressed by *is* or *will be*." Mill's *Logic*, bk. vi. c. 12.

The followers of Hegel concern themselves with the question "Has Ethics to do with what ought to be, rather than with what is?" Muirhead, *Elements of Ethics*, 34. This distinction is held to be "misleading." "It is undoubtedly true that for the individual the moral law represents something that ought to be, as opposed to physical law, which is a statement of what is." *Ib.*, 34. But, the difference is only this, that the latter is "a scientific generalisation from the observation of facts," the other is a rule or maxim flowing from such a generalisation. Still, it is added, "However closely these Categories may be related to one another, no identification of them is ultimately possible." *Ib.*, 35. "Duty for duty's sake." Bradley, *Ethical Studies*, 143.

DYNAMICAL (*δύναμις*, power), pertaining to power as efficient.—(1) Applicable to energy in all its forms. (2) Applied to conscious activity. Kant distinguishes the categories into *mathematical* and *dynamical*,—the former being Quantity and Quality; the latter, Relation and Modality,—as concerned with correlates. "What is *mathematical* enters into and forms part of objects themselves—is *constitutive*; while what is *dynamical* only concerns relations *between* objects . . . or is only *regulative*." Stirling, *Text-Book to Kant*, p. 392. *Pure Reason*, Meiklejohn's transl., pp. 67 and 134. In ethical philosophy, the term is concerned with efficiency in fulfilment of moral law, and is applied to a reigning motive force, such as reverence for law, or love to God. This is Shairp's use of "moral dynamic," *Studies in Poetry and Philosophy*, p. 348.

EAR—The organ of hearing is a structure involving the combination of three distinct chambers; the outer terminated by the drum, which is the distended skin; the intermediate,

supplied with air from the nostrils, where three small bones by transference of impact carry the vibration to two windows communicating with the inner chamber, within which are three semi-circular canals, and the cochlea, at base of which is a series of minute nerve fibres, like tuning forks.

ECLECTICISM (ἐκλέγω, to select, to choose out).—Philosophic theory constructed by selection and combination from conflicting schemes of thought. The tendency to resort to selection, appeared among the later Peripatetics and Stoics. Ueberweg's *History*, i. 184, 188. Its rise may be traced to the period of the third Academy, when, under the leadership of Carneades, a sceptical tendency had been developed. It afterwards found favour in Alexandria and in Rome. The Neo-Platonists of Alexandria professed to gather and unite into one body what was true in all systems of philosophy. Clemens Alexandrinus, *Stromm*, i. 288, said:—"By philosophy I mean neither the Stoic, nor the Platonic, nor the Epicurean, nor the Aristotelian; but whatever things have been properly said by each of these sects, inculcating justice and devout knowledge,—*this whole selection I call Philosophy.*" Diogenes Laertius says that Potamo of Alexandria introduced ἐκλεκτικὴν αἵρεσιν, "picking out of the doctrines of each school what pleased him most," i. 21; Ueberweg's *Hist.*, i. 243. "Among the Platonists of the first two centuries after Christ, Eclecticism and the philosophy of revelation went hand in hand." Zeller, *Eclecticism*, transl., 20. Eclecticism is characteristic especially of the Roman philosophers, as Cicero. Leibnitz urged that truth is more widely diffused than is commonly thought; but it is often burdened, and mutilated, by unwarranted additions. He thought there was *perennis quædam philosophia*—if it could only be eliminated from conflicting representations. Eclecticism, in its efforts to escape conflict, has commonly ended in sceptical suggestion, by neglect of searching inquiry as to the criteria of truth. Zeller's *Philosophy of the Greeks*,—Stoics, Epicureans, and Sceptics,—Reichel, ii. 31.

The rise of Eclecticism belongs to the period of decline of philosophic thought in Greece. "When the internal condition of the philosophic schools, and especially the last important pheno-

menon in this sphere—the doctrine of Carneades—already led to eclecticism, it must necessarily have developed itself only the more speedily and successfully through the concurrence of internal motives with external influences. But, although this eclecticism primarily appears merely as the product of historical relations, . . . it is not wholly without a characteristic principle, which till then had not existed in this form. . . . If it be required that the individual shall choose out of the various systems that which is true, for his own use, this presupposes that each man carries in himself the standard for decision between true and false.” Zeller’s *Eclecticism*, transl. Alleyne, 17, 18.

Ueberweg’s *History*, earlier phases, i. 217 to 234; modern forms, ii. 116, 213, 482. Schwegler’s *History* (Stirling, 8th ed.), earlier, p. 138. See specially Zeller’s “History of Eclecticism” (*Philosophy of the Greeks*), Alleyne’s transl.; Maurice’s *Mor. and Meta. Phil.*; Cousin, *Fragments Philosophiques*, 8vo, Paris, 1826; Jouffroy, *Mélanges Philosophiques*, 8vo, Paris, 1833; *Essays*, transl. by Ripley.

Cousin was the eloquent advocate of Eclecticism in modern times. He maintained that “the unity of modern philosophy resides in its method, that is to say, in the analysis of thought—a method superior to its own results, for it contains in itself the means of repairing the errors that escape it, and of indefinitely adding new riches to riches already acquired.” *True, Beautiful, and Good*, p. 25, transl. Wright. In defence of his Eclecticism, he says:—“Not, indeed, that I would recommend that blind syncretism which destroyed the school of Alexandria, which attempted to bring contrary systems together by force; what I recommend is an enlightened eclecticism which, judging with equity, and even with benevolence, all schools, borrows from them what they possess of the true, and neglects what in them is false.” *Ib.*, p. 26. “The question is not to decry, and recommence the work of our predecessors, but to perfect it, in reunity, and in fortifying by that reunion, all the truths scattered in the different systems which the eighteenth century has transmitted to us.” *Ib.*, p. 27. This volume, published 1853, gives a summary of Lectures delivered from 1815 to 1821.

See his Lectures on *The History of Modern Philosophy*, 2 vols. See also *Victor Cousin*, by Jules Simon, translated by Gustave Masson.

ECSTASY (ἔκστασις, standing out of usual experience, astonishment, trance).—Transport of soul as if out of the body; highly intellectual excitement; an “inner mystical subjective exaltation,” contrasted with ordinary knowledge. A state of exaltation of feeling, akin to the normal condition of the nerve system, tending towards its temporary paralysis, and liable to be followed by muscular rigidity. The Fakirs of the East have been long familiar with the possibilities of ecstatic trance. Hypnotism has brought the phenomena again into prominence. The state can be induced by concentration of special senses, and by use of drugs, such as opium, hashish, and belladonna. Schwegler, *History*, Stirling, 8th ed., p. 140.

The ecstatic experience was specially claimed by the Neo-Platonists, and was represented as transcending ordinary experience, so as to rise to direct vision of God, or even identification with the Divine. Plotinus and Porphyry professed to have ecstatic intuition of God—*ecstasies* in which they were united to God. Among Christian writers, Bonaventura (John Fidanza), *Itinerarium Mentis in Deum*, and Gerson, *Theologia Mystica*, recommend contemplations which may lead to *ecstasy*. It is also a feature of the speculations of Eckhart and the Mystics of the 14th and 15th centuries. The modern transcendentalism of Germany contemplated Ecstasy as a lofty experience, in which the soul, parting from the limits of ordinary thought, passes into identification with the Divine, Self-consciousness being lost in consciousness of God. See Ueberweg's *Hist.*, i. 250; Neo-Platonic Ecstasy, Schwegler, p. 139; German Mysticism, Ueberweg's *Hist.*, i. 467–484; Jacob Boehme's *Works*; Martensen's *Boehme*; Vaughan's *Hours with the Mystics*. On abnormal excitation, with hallucination, James, *Principles of Psychol.*, ii. 116.

EDUCATION (*educō*, to lead out).—Development of the bodily and mental powers. (1) Physical,—development of the body, in accordance with the laws of exercise; (2) Mental,—development of mind (*a*) by use of external observation, which

may be called the *education* of Nature; (b) by *instruction* and *reflection*; (c) by *discipline*, or the formation of manners and habits. Plato, *Republic*, bk. iii. 411; Milton, *On Education*; Locke, *On Education*; Guizot, *Meditations, Conseils d'un Père sur l'Éducation*; Herbert Spencer, "Education—Intellectual, Moral, and Physical;" *American Journal of Education*; art. "Education," *Ency. Brit.*, 9th ed.

The science of Education is strictly a branch of Psychology, —a science of the development of the powers of the rational being. In the International Education series, Rosenkranz, *Philos. of Educ.*; Preyer, *Senses and the Will*; and *Development of the Intellect*; Rein, *Outlines of Pedagogy*, transl. Van Liew; Baldwin (Princeton, U.S.A.), *Elementary Educ. and Psychol.*; Laurie, *Institutes of Educ.*, and *Language and Linguistic Method in the School*; Compayré, *Pedagogy*, Paris; and *L'Évolution Intellectuelle, et Morale de l'Enfant*.

EFFECT (*ex*, from; *facio*, to make or produce).—Occurrence, or object considered in relation to its cause.

EFFERENT (*ex*, from; *fero*, to carry).—Designation for the nerve fibres whose function it is to carry excitation from the central nervous system to the muscular and vascular mechanisms. The "motor nerves." "The out-going" side of the nerve system. The term is also applied to the blood-vessels.

EGO,—**I**,—**THE SELF**.—The conscious subject of experience and rational action. Knowledge of self is the uniform condition of consciousness; but we know ourselves at each moment as in a special state, differentiated from prior states. The Ego, in its totality, in the sum of its powers and capacities, —The Transcendental Ego, in Kant's sense,—cannot be immediately known, as it cannot be constitutive of any act of consciousness. This knowledge can be reached only indirectly. Hence the significance of the Socratic maxim, "know thyself." The impossibility, on which Carlyle dwells, and the possibility, must be taken together. The necessity for this, bespeaks the mystery of human life. Cycles, *Human Exper.*, 17.

"In English, we cannot say the *I* and the *not I*, so happily as the French *le moi* and *le non-moi*, or even the German *das Ich* and *das nicht Ich*. The *ego* and the *non-ego* are the best terms

we can use; and as the expressions are scientific, it is perhaps no loss that their technical precision is guarded by their *non-vernacularity*. . . . The *ego*, as the subject of thought and knowledge, is now commonly styled by philosophers simply the *Subject*; and *Subjective* is a familiar expression for what pertains to the mind or thinking principle. In contrast and correlation to these, the terms *Object* and *Objective* are, in like manner, now in general use to denote the *non-ego*, its affections and properties,—and in general the *really existent* as opposed to the *ideally known*." Hamilton, *Reid's Works*, 100, 806.

Kant distinguishes between the *transcendental* or objective, and the *empirical* or subjective ego. The latter is the object of internal sense (or introspection), the former is the universal subject which makes all objects possible, the unity of apperception, or self-consciousness, making possible that synthesis which is essential to knowledge, the "I think" which must be capable of accompanying all my representations. *Kant's Pure Reason*, Meiklejohn's Tr., 41, 83-5, 95-7, 247; *Kant's Prolegomena*, Bax's Tr., 221. *Fichte* finds the centre and source of all existence in the *absolute Ego*, which posits itself and the non-ego, and through the threefold process of thesis, antithesis, and synthesis, creates the universe of knowledge and of moral life. *Green's Prolegomena to Ethics*, B.I.; *Mill's Exam. of Hamilton*, c. xii.

"Any one who could see quite through himself, would seem to us to have come to an end of himself." Lotze, *Microcosmus*, i. 12.

"The Empirical Self of each of us is all that he is tempted to call by the name of *me*." James, *Principles of Psychology*, i. 291. The author treats of the material self, the social self, the spiritual self, and the pure Ego.

That other intelligent beings are self-conscious as we are, is inferred only from their utterances and actions. Clifford treats this recognition, as if it were ejected from our own consciousness.

EGOISM.—Applicable to any theory of knowledge which makes Self-existence the only certainty; and to any theory of practice which makes self-interest the sole motive in acting.

In *Ethics*, Egoism is used to characterise the theory that all

human impulses are essentially self-regarding. Hobbes' theory is the type of such. Egoism stands opposed to *Altruism*.

For the discussion of *Egoism* as an ethical principle, Sidgwick, *Methods of Ethics*, bk. ii.; Spencer, *Data of Ethics*, ch. xi.-xiv.

EJECT (*ex*, from; *facio*, to cause to go).—Used by Clifford, in antithesis to mere *object*. On the theory of perception, that objects are merely ideas, therefore essentially passive objects, voluntary agents are not included. But we recognise other persons, who are not mere passive objects, but spiritual agents, like ourselves. Clifford applies the term *ejects* to conscious agents like ourselves, as distinguished from *mere* objects. Clifford, *Seeing and Thinking*.

ELABORATIVE FACULTY, applied to the Faculty of *Comparison* or *Relations*. "It supposes always at least two terms, and this act results in a judgment, that is, an affirmation or rejection of one of the terms of the other." Hamilton, *Metaph.*, lect. xxxiv.

ELEMENT (*στοιχείον*, a beginning; *elementa*, the first principles of things).—(1) An original constituent of material existence; (2) an inherent property of an object; (3) an essential part of a question under discussion. The first is the usage in the ancient "Elemental Philosophies." Empedocles taught the existence of four elements—earth, air, fire, and water. The earlier Ionic philosophers, Thales, Anaximander, Anaximenes, postulated an elementary form of existence—water, the infinite, air. After Empedocles, Leucippus and Democritus returned to the view of the qualitative identity of the original material.

"We call that elementary which in a composition cannot be divided into heterogeneous parts—thus the *elements* of sound constitute sound, and the last parts into which you divide it—parts which you cannot divide into other sounds of a different kind. The last parts into which bodies can be divided; parts which cannot be divided into parts of a different kind are the *elements* of bodies. The *elements* of every being are its constitutive principle." Aristotle, *Metaph.*, lib. iv. ch. iii. The word element (*Στοιχείον*) designates the case in which one

thing is the primitive matter which constitutes another thing." Aristotle, *Metaph.*, lib. x. ch. i.

The Stoic definition of an element is, "that out of which, as their first principle, things generated are made, and into which all things are resolved at last." Diog. Laert., vii. 69.

EMANATION (*emano*, to flow from).—According to several systems of thought which have prevailed in the East, all the beings in the universe, whether body or spirit, have proceeded from, and are parts of, the Divine Being or substance. This doctrine of *emanation* is to be found in the systems of Zoroaster, the Gnostics, and Neo-Platonists. "Every such theory, and the Neo-Platonic as well, assumes the world to be an effluence or irradiation of God, in such manner that the remoter emanation possesses ever a lower degree of perfection than that which precedes it." Schwegler, *Hist. of Philos.*, Stirling, 141.

EMBRYOLOGY.—The science of life development in its earliest stage, within the egg; and in higher forms of life, within the womb. The history of the individual life from the fertilisation of the germ to the completed organic form appearing at birth. Comparative Embryology supplies an essential department of evidence towards construction of a general theory of Biology. The hypothesis of organic Evolution depends largely on this sphere of observation. F. M. Balfour, *Comparative Embryology*, 2 vols.; Foster and Balfour, *Elements of Embryology*.

EMINENTER.—A scholastic term adopted by Descartes. A cause is said to contain its effect either *formaliter* or *eminenter*. If the effect be contained in the cause, not as it is in itself, or according to its intrinsic form, essence, or proper definition, but *in a higher grade or mode of perfection*, it is said to be in its cause *eminently*. A cause containing *eminently* thus contains all the reality of the effect more perfectly than the effect itself. This distinction has an important application, in the philosophy of Descartes, to the question of the proof of the existence of God through his idea." Descartes' *Meditations*, iii., Veitch, *Descartes*, app., note 7.

EMOTION (*emoveo*, to move out).—Often, co-extensive with feeling; more commonly, the intenser forms of feeling, often

a distinct order of feeling, indicative of mental disturbance, and giving rise to physical agitation, restraining or even paralysing energy. The chief of these special emotions are Wonder, Fear, Grief. In this sense, Emotion indicates the susceptibility of our nature, rather than its activity. In harmony with this application, the term may reasonably include all passive feeling, whether attributed to organism, or to susceptibilities of mind.

In many instances, *emotions* are succeeded by desires, inclining us either to obtain possession of objects, or to remove ourselves from the presence of objects. When an *emotion* is thus succeeded by desire, it forms a *passion*, which is a powerful spring of action.—See Chalmers, *Sketches of Mental and Moral Philosophy*, p. 88. Influence of Emotions, Natural Restraints upon action, Calderwood's *Handbook of Moral Philosophy*, p. 161

As to the genesis of the Emotions, Bain, *Emotions and Will*; James, *Principles of Psychology*, c. 25, vol. ii. 442; Höffding, *Psychol.*, 342. "Instinctive reaction and emotional expressions shade imperceptibly into each other." James, ii. 442. Physiological conditions are supplemented by thought and imagination. Hence human emotions are awakened by occurrences as these happen to be regarded by intelligence, and they are intensified or weakened by mental representations, and by reasoning as to consequences. We have thus, besides the physical basis, a mental basis, and these are so harmonised as to react upon each other. The source of emotion may be either sensitiveness of organism, or sensitiveness of mind. "The entire organism may be called a sounding-board, which every change of consciousness, however slight, may make reverberate." James, ii. 450. Imagination may awaken emotion, finding expression on the countenance; and this relation between mental and physical may even become habitual, so as to stamp a fixed expression on the face. Article by Irons, *Mind*, n.s., iii. 77.

As to Expression of Emotions, so far as this is physiological, Darwin, *Expression of the Emotions in Man and Animals*; Bell's *Anatomy of Expression*; Dugald Stewart, *Elements*,—Works,—Hamilton's ed., iii. 140.

EMPIRICISM.—(*Ἐμπειρία*, experience).—Procedure depending on experience, to the neglect of science. A theory of

knowledge which regards experience as the sole criterion of truth. In Epistemology, it derives all from sensation, and is known as Sensationalism; in Moral Philosophy it depends wholly upon association of feelings, and upon inductions founded on these.

Empiricism denies the presence of *a priori* elements in consciousness, rejecting the claim to an intuitive knowledge of first truths. Yet the law of causality is taken as a universal truth. Mill's *Logic*, iii. v. 1.

The founder of *modern* Empiricism is Locke, who traces all knowledge to experience, including sensation and reflection. *Essay*, bk. ii. c. 1, § 2. "External material things as the objects of sensation, and the operations of our own minds within as the objects of reflection, are to me the only originals from whence all our ideas take their beginnings," § 3. Locke has, however, the further use of reflection, objects being "perceived and reflected on," § 1. The French philosophers of the 18th century, Condillac and others, rejected reflection as a distinct source of knowledge, and pushed the sensationalistic side of Locke's philosophy to an extreme. They hold that "knowledge consists entirely of sensations remembered or generalised, which they call *ideas*. In England, the sensationalism of Locke was developed by Hume into universal scepticism. Since the criticism of Reid and Kant, Empiricism has been revived by James Mill, Bain, J. S. Mill, Spencer, and others.

The Empirical unity is the stream of consciousness, as this is determined by conditions external and internal. This is in a sense broken up, and systematised by the rational process, when concerned with the interpretation of things and of thought. "Incoherence of Empirical Philos.," Sidgwick, *Mind*, vii. 533.

END.—The contemplated and purposed result of activity; *principium in intentione et terminus in executione*. Teleology is the doctrine of ends, as these are traced in the laws of Nature. Hence, as Kant says, the notion End leads us to regard Nature as a system. According to Aristotle, ends of rational conduct are of two kinds—*ἐνέργειαι*, operations; *ἔργα*, productions. *Ἐνέργεια* is end, when the object of a man's

acting is pleasure or advantage in being so employed. An ἔργον is something which is produced by means of the effort. *Nicom. Eth.*, lib. i. cap. i. The conception of end is prominent in Aristotle's *Metaphysics*. The τέλος, is in thought the beginning, though it is the end or result of the evolution of existence. That which is sought for its own sake is the *supreme* and *ultimate end*. That which is sought for the sake of some other end is a *subordinate* and *intermediate end*.

Cicero, *De Finibus Bonorum et Malorum*; Edwards, *The End for which God created the World*; Janet's *Final Causes*; "Of the Ideal of the Summum Bonum as a determining ground of the ultimate end of pure reason," Kant's *Pure Reason*, Meiklejohn's Tr., 487; *Logic* of Hegel, Wallace, 296. "How do we come to assume an aim in Nature?" Hartmann, *Philos. of the Unconscious*, Coupland's Tr., vol. i. p. 43. Muirhead, *El. of Ethics*, bks. iii. and iv.

END-IN-HIMSELF.—"Man and every reasonable agent exists as an end-in-himself, and not as a mere mean or instrument to be employed by any will whatever, not even by his own, but must in every action regard his existence, and that of every other intelligence, as an end-in-itself." *Kritik der Praktischen Vernunft*; *Werke*, Rosencranz, viii. 56; *Kant's Ethics*, Semple's transl., 3rd ed., p. 41; Abbott, 3rd ed., p. 46. Accordingly, man, as moral agent, belongs to a *kingdom of ends*. "By a kingdom I understand the union of different rational beings in a system by common laws." "All rational beings come under the *law*, and each of them must treat itself and all others *never merely as means*, but in every case *at the same time as ends in themselves*." "Metaphysic of Morals," Kant's *Theory of Ethics*, Abbott, 3rd ed., pp. 51, 52.

ENERGY (ἐνέργεια, as distinguished from δύναμις), power operating. These two are placed in contrast by Aristotle. *N. Ethics*, bk. ii. ch. i. Power (δύναμις) is regarded by him as a possession within the mind which may not be brought into action. Energy is the activity of the power, for the accomplishment of an approved end.

In physical science, Energy is applied to power capable of doing work, and stands in contrast with Matter.

ENTELECHY (ἐντελέχεια, ἐντελής, perfect; ἔχειν, to have; and τέλος, an end).—Complete attainment; distinctness of realised existence. E. Wallace, *Psychology of Aristotle*, introd., p. xlii., defines the *Entelechy* of Aristotle as “the realisation which contains the end (τέλος) of a process; the complete expression of some function—the perfection of some phenomenon, the last stage in the process from potentiality to reality.” It is in this sense that the Soul is called by Aristotle the ἐντελέχεια of body—“its perfect realisation or full development.” “Frequently, it is true, Aristotle fails to draw any strict line of distinction between *entelechy* and *energy*; but, in theory at least, the two are definitely separated from each other, and ἐνέργεια represents merely a stage on the path towards ἐντελέχεια.”

Aristotle further distinguishes between a *first* and *second* Entelechy. The former is the *implicit*; the latter, the *actual* realisation. It is in the former sense that the soul is the Entelechy of body—ψυχή ἐστὶν ἐντελέχεια ἢ πρώτη σώματος φυσικοῦ δυνάμει ζῶν ἔχοντος. *De Anima*, lib. ii. cap. i. sec. 6.

“*Entelechy* is the opposite to *potentiality*, yet would be ill translated by that which we often oppose to potentiality, *actuality*. Εἶδος expresses the substance of each thing viewed in repose—its form or constitution; ἐνέργεια its substance, considered as active and generative; ἐντελέχεια seems to be the synthesis or harmony of these two ideas.” Maurice, *Mor. and Metaph. Phil.*

ENTHUSIASM (ὁ θεὸς ἐν ἡμῖν).—Inspiration; ardour of feeling; sometimes, in an evil sense, unregulated excitement.

The word is applied in general to extraordinary excitement or exaltation of mind. The raptures of the poet, the deep meditations of the philosopher, the heroism of the warrior, the devotion of the martyr, and the ardour of the patriot, are so many different phases of *enthusiasm*. More, *Enthusiasmus Triumphatus*; Casaubon, *A Treatise concerning Enthusiasm*; Locke, *Essay on Human Understanding*, bk. iv. ch. xix.; Shaftesbury, *Of Enthusiasm*; Hume, *Essays on Superstition*

and *Enthusiasm*; *Natural History of Enthusiasm*, by Isaac Taylor; Kant's *Ethics*, Semple's Tr., 3rd ed., 215; Abbot's Tr., 3rd ed., 320.

ENTHYMEME (ἐν θύμῳ, in the mind).—An irregular syllogism, in which one of the premises is unexpressed, but kept in mind; as "every animal is a substance, therefore every man is a substance;" in which the premiss, "man is an animal" is suppressed. This, however, is not the Aristotelian meaning of the term. According to him, it is a "rhetorical syllogism," of which the premises are maxims generally true (εἰκότα), or facts which indicate the existence of some other fact (σημεῖα): and which, as generally understood, would be left unstated." Aristotle's *Syllogism* was an inference in matter necessary; his *Enthymeme* was an inference in matter probable. *Anal. Pr.*, ii. 26, 70-72, Bachmann. Cf. Hamilton, *Reid's Works*, p. 704, note.

ENTITY (*entitas*).—Being. The Latinised form is adopted to abstract the metaphysical problem from questions as to species.—*Vide* BEING.

In the Scholastic philosophy, it is synonymous with Essence.—*Vide* ESSENCE.

ENTOPTIC, applied to sensations consequent on variety of excitation within the eye-ball.

ENVIRONMENT.—The whole circumstances external to organism bearing on the activity of the living being. Environment includes position, relations, and all influences *ab extra*.

Darwin's observations have raised into prominence the problem as to the effects in the history of life of its dependence on external conditions.

The main question is the amount of influence which may be assigned to Environment. This must determine the scope of "natural selection." Does Environment act independently on organism; or are all results dependent on the adaptation of the organism to its Environment?

"The changes or processes displayed by a living body are specially related to the changes and processes in its environment. . . . The life of the organism will be short or long, low or high, according to the extent to which changes in the

environment are met by corresponding changes in the organism." Spencer's *Principles of Biology*.

"All evil results from non-adaptation of constitution to conditions." This raises the question as to the limits in power of adaptation. Spencer, *Factors of Organic Evolution*; for reply, Russel Wallace's *Darwinism*, 411; Lotze, *Microcosmus*, Hamilton's transl., i. 19, 136.

ENVY.—Displeasure at the prosperity of another, tending to awaken desire to dispossess him of the advantages possessed, and inducing hatred of the possessor. Butler's *Sermons*, i.; Bacon's *Essays*, essay ix.

Darwin remarks that "dogs are apt to hate both strange men and strange dogs, especially if they live near at hand, but do not belong to the same family, tribe, or clan." He adds that "this feeling would thus seem to be innate." *Descent of Man*, p. 112, note.

EPICHEIREMA (ἐπιχειρέω, to put one's hand to a thing).—An attempted proof—a syllogism confirmed in its major or minor premiss, or in both, by an incidental proposition. This proposition, with the premiss to which it is attached, forms an enthymeme or imperfectly expressed syllogism. The *incidental* proposition is the *expressed premiss* of the enthymeme, and the premiss to which it is attached is the *conclusion*, e.g., "covetousness is sin, for it is a transgression."

EPICUREANISM.—The philosophy of Epicurus and his followers. Epicurus was born in Samos, 341 or 342 B.C. He came to Athens about 306 B.C., and taught philosophy there for more than thirty years, his disciples being gathered in his own garden, afterwards bequeathed to his followers for a meeting-place. His name is specially associated with the doctrine that pleasure is the chief good. His school thus stood out as antagonistic to the Stoics, these two being historically the parting of two streams of thought, represented still in the Utilitarian and Rational Theories of morals. The Stoics and Epicureans represent respectively different tendencies appearing in the Aristotelian Ethics, the Stoics taking the true meaning of Aristotle, and placing in prominence the warning that we are most prone to be led astray by pleasure; the Epicureans taking,

in their most general sense, the earlier statement of Aristotle, happiness is that which all seek after.

The leading Epicureans in Athens were Metrodorus, Polyænus, Hermarchus, and, at a later period, Apollodorus. The school afterwards gained considerable influence in Rome.

In Ethics, Epicurus maintained that pleasure is the chief good, holding that this is proved by the fact that all animals, from the moment of their birth, are delighted with pleasure and offended with pain. By pleasure he means "the freedom of the body from pain, and of the soul from confusion." "Every pleasure is a good on account of its own nature, but it does not follow that every pleasure is worthy of being chosen." "The beginning and greatest good of all these things is prudence, teaching us that it is not possible to live pleasantly unless we also live prudently and honourably and justly." But he adds, "we choose the virtues for the sake of pleasure, as we seek the skill of the physician for the sake of health." See Diog. Laert., bk. x.; Zeller, *Stoics, Epicureans, and Sceptics*, Eng. transl., Reichel, ch. xv. p. 382; Guyan, *La Morale d'Epicure*; W. Wallace, *Epicureanism*.

EPISTEMOLOGY (λόγος τῆς ἐπιστήμης, the science of knowledge), otherwise known as Theory of Knowledge (*Erkenntnistheorie*), is a department of philosophical investigation which has assumed special prominence in modern philosophy, more particularly owing to the influence of Kantian or Critical thought. It has been distinguished from Psychology on the one hand, and from Ontology, or Metaphysics, strictly so called, on the other. Psychology investigates the conditions on which mental states depend, and the laws which govern their combinations and development, but it does not (in its modern acceptation at least) raise the question of the *validity* of the knowledge of which our conscious states are the vehicle. It is the province of Epistemology to investigate the nature of the cognitive relation as such, with a view to discover its essential conditions, and so to determine whether the circumstances of human knowledge are such as to discredit its claims to be a true account of reality. This distinction of point of view between

psychology and epistemology is embodied in the Cartesian distinction between the *esse formale seu proprium* of an idea, regarded only as a specific mode of consciousness, and its *esse objectivum sive vicarium*, when it is taken in its representative capacity, as standing for some object thought of. Locke's *Essay*, whose design, according to its author, was "to inquire into the original certainty and extent of human knowledge, together with the grounds and degrees of belief, opinion, and assent," impressed an epistemological direction upon English philosophy which was maintained in Berkeley and Hume, and which culminated in the critical theory of Kant.

It has been contended, and rightly so, by Hegel and others, that Kant essays an impossible task, seeing that it is impossible to sit in judgment upon our cognitive faculties without employing these very faculties, and thereby implying their trustworthiness. The validity of knowledge as such is an ultimate and inevitable assumption, and therefore the subjectivism of Kant's intellectual theory is unfounded. This is true, and yet the need for a theory of knowledge remains. By unravelling the misconceptions on which sceptical and relativistic theories depend, a true epistemology disengages and makes explicit this very assumption. An agnostic relativism condemns knowledge because it does not satisfy impossible conditions. By exposing the inherently impossible nature of the demands made, epistemological analysis deprives such criticism of its basis, and restores us to the original confidence of reason in itself. For the theory of knowledge, it may be added, is, historically, later in appearing than the theory of Being. It is the conflict of metaphysical theories and the rise of sceptical doubts as to the possibility of knowledge, that first call into existence a systematic theory of cognition. Epistemology, in this sense, includes an investigation into the ultimate nature of proof or evidence, and into what has been called, generally, the foundations of belief. In this aspect its affinities with logic are evident; some writers would identify the two disciplines, or include what is ordinarily called logic as a part of the theory of knowledge.

Besides the general discussion as to the validity of knowledge, Epistemology includes a critical analysis of the categories

or conceptions which we employ to describe and explain the real. Kant's table of the Categories, and Hegel's *Logic*, would be contributions to such a "Kategorienlehre." Many regard such a criticism of categories—a dissection of the ultimate structure of reason, it might be called—as the only possible Metaphysic, and accordingly identify Epistemology and Metaphysics. But though such criticism must form the only sure basis of ontological speculation, the one cannot be converted immediately into the other. The analysis of knowledge when treated as an Ontology reduces us to the position of "a transcendental solipsism." Ethical and teleological considerations must bear their part in shaping our ultimate metaphysical conception of the universe. This is recognised by writers like Mr Shadworth Hodgson in his *Philosophy of Reflection*, and Professor Laurie in his *Metaphysica Nova et Vetusta*; for though they apparently use Metaphysic to designate the theory of knowledge, they expressly leave room for a "constructive" or "speculative" branch of philosophy, to follow upon the analysis of conceptions, which they regard as exhausting metaphysics proper. This constructive theory, however, is precisely what catholic philosophic usage understands by Metaphysics.—Professor A. Seth.

EPISYLLOGISM.—In a chain of reasoning, or *Sorites* (*q.v.*), the individual syllogisms into which it may be resolved are called *pro-syllogisms* or *epi-syllogisms*, according as they are inferences from earlier, or premises of later syllogisms.

EQUATION, correlation of equals.—This is one view of the nature of *Judgment* (*q.v.*). See Jevons, *Substitution of Similars*; Venn, *Symbolic Logic*.

EQUITY (ἐπιείκεια, fairness; or τὸ ἴσον, the equal, as distinguished from τὸ νομικόν, the legal).—The equal between man and man, in view of natural rights, or of voluntary contract. It is described by Aristotle, *Ethics*, bk. v. ch. xv., as that kind of justice which corrects the irregularities or rigours of strict legal justice. All written laws must necessarily speak in general terms, and must rest on the law of justice as ultimate, the true determinator of the spirit of civil law.

"*Equity*, in its true and genuine meaning, is synonymous

with natural justice ; and to this the judge must have recourse where the laws are silent, and there is nothing else to guide his decision." Lord Mackenzie, *On Roman Law* ; cf. Maine, *Ancient Law*.

The equitable may, therefore, be the just, as in contrast with the strictly legal, as Aristotle has said, "a correction of law, where law is defective by reason of its universality."

EQUIVOCATION.—Deliberate use of language in a double sense, with the view of deceiving.

ERROR.—Undesigned flaw in observation, or deviation from the laws of Logic in reasoning. *Error* is not a fault of our knowledge, but a mistake of our judgment, giving assent to that which is not true. The understanding, while liable to error, has a power of self-criticism, fitting it to detect and rectify its own errors.

"The power of judging aright, and of distinguishing truth from error, which is properly called Good Sense or Reason, is by nature equal in all men." Descartes, *Method*, pt. i., transl. Veitch. As to the sources of error,—“I was led to infer that the ground of our opinions is far more custom and example, than any certain knowledge.” *Ib.*, pt. ii. The source of our errors is not found in our perceptions, but in our judgments ; Descartes, *Meditation iv.*, “Of Truth and Error ;” in “sensation itself, or consciousness of seeing or walking, the knowledge is manifestly certain ;” Descartes, *Principles of Philosophy*, pt. i. 9 ; “We shall never err if we give our assent only to what we clearly and distinctly perceive ;” *Ib.*, pt. i. 43 ; Locke, *Essay*, bk. iv. ch. 20 ; On the sources of error, Descartes, *Principles*, pt. i. secs. 71–74 ; Mill, *Logic*, bk. v. ch. i.

The first source of error is inadequate or unwarranted interpretation of our observations ; the second is illegitimate inference, either on account of inadequate test of our premises, or illogical reasoning from them. At the basis of self-criticism, for escape from error, lies confidence in our senses, and in rational inference.

ESOTERIC, opposed to **EXOTERIC** (ἐσωθεν, from within ; ἐξω, from without ; ἐσώτερος, inner).—Secret or hidden doctrine, communicated only to the initiated ; exoteric being

doctrine publicly taught; scientific teaching, in contrast with teaching more popular in form.

The distinction of *esoteric* and *exoteric* among the Pythagoreans appears to have been applied to the disciples, according to the degree of initiation to which they had attained, being fully admitted into the society, or being merely beginners in inquiry. Ritter, *History of Ancient Philosophy*, i. 342.

Aristotle speaks of some of his writings as *exoteric*; and others as *acroamatic*, or *esoteric*. The former treat of the same subjects as the latter, but in a popular and elementary way; while the *esoteric* are more scientific in their form and matter.

In modern literature the terms are used in this last sense. A technical or scientific statement is said to be *esoteric*, a popular one *exoteric*. Grant's *Aristotle's Ethics*, app. B, 3rd ed., i. 397. *Vide* ACROAMATIC.

ESSENCE (*essentia*, from *essens*, the old participle of *esse*, to be).—Being, in its necessary properties, apart from accidental. τὸ τί ἦν εἶναι, Aristotle, *Metaph.*, vii. 7.

The Greeks had but one word for *essence* and substance, viz., οὐσία. The word ὑπόστασις, substance, was latterly introduced. Aristotle insisted on the *imminence* of the form or essence in the matter of the actual phenomenon, as opposed to the *transcendence* of the Platonic Idea, apart from the sensible world. "The word substance (οὐσία) in its primary and proper signification belongs to the concrete and individual; only in a secondary sense can it be applied to the genus." Ueberweg, *Hist.*, Tr., i. 157.

In the Scholastic philosophy, the diversity of theory was expressed in the formulæ *universalia ante rem*,—*universalia in re*,—*universalia post rem*. A distinction began to be established between *essence* and *substance*. *Substance* was applied to the abstract notion of matter—the undetermined subject or substratum of all possible forms, τὸ ὑποκείμενον; *Essence* to the qualities expressed in the definition of a thing, or those ideas which represent the genus and species.

Descartes defined *substance* as "that which exists so that it needs nothing but itself to exist"—*Principles*, part I, sec. 51—a definition applicable to God only, and that which Spinoza

made the basis of his theory. *Essence* he stripped of its logical significance, making it the foundation of all those qualities and modes which we perceive in matter. Among the attributes of every substance there is one only which deserves the name of *essence*, and on which the others depend as modifications—as extension, in matter; or thought, in mind. He thus identified *essence* and *substance*. With Leibnitz *essence* and *substance* were the same, viz., force or power. Spinoza defines *Essence* as “that which being given, the thing is necessarily given, and which being wanting, the thing necessarily ceases to exist; or that without which the thing cannot be conceived to be; or which itself, without the thing, can neither exist nor be conceived.” *Eth.*, pt. ii. def. 2. According to Hegel, “essence” is first the ground of existence; next, of the manifestation in phenomena; finally, of reality, which is the unity of essence, and phenomenon.

“It is important to remark the change of meaning which this word has undergone in its transmission from the ancient to the modern schools of philosophy. Formerly the word ‘essence’ (*οὐσία*) meant that part or characteristic of anything which threw an intellectual illumination over all the rest of it. . . . Nowadays it means exactly the reverse. . . . The ‘essence’ is the point of darkness, the assumed element in all things which is inaccessible to thought or observation.” Ferrier, *Instit. of Metaph.*, p. 249.

ETERNITY.—Infinite Duration, without beginning and without end. Our conception of Eternity implies a present existence, of which neither beginning nor end can be affirmed. The schoolmen spoke of *eternity*, *a parte ante*, and *a parte post*. Plato said, time is the moving shadow of *eternity*. *Timæus*, 37. Spinoza says—*In æterno non datur quando, nec ante, nec post*. If there is but one substance, the one condition of truth is that every thing be thought *sub specie Eternitatis*. Eternity is, according to Spinoza, “existence itself.”

Locke, *Essay*, bk. ii. ch. 14 and ch. 28. Mansel, *Exam. of Maurice's Theory*; The whole discussion of The Infinite, *Limits of Religious Thought*.

“To exist in time is the same thing as to exist imperfectly.

God, in the language of Plotinus, is necessarily *ἄχρονος*, timeless." Jules Simon, *Hist. de. l'École d'Alexandrie*, pref. Kant, in the *Æsthetic*, makes space and time "subjective forms of our mode of intuition," thus avoiding the error, otherwise he thinks unavoidable, of attributing to the Divine intuition the conditions of space and time. *Pure Reason*, p. 43, Meiklejohn, suppl. xi. ; Max Müller, i. 421.

Time is the measure of relations in succession. Eternity is the duration of the Absolute, who is the unchangeable. Eternity, being the transcendence of all relations in succession, is strictly the absence of time.

ETHICS.—Synonymous with "Moral Philosophy," the philosophy of the right in conduct. According to Kant, a philosophy of "the laws of freedom," in contrast with "the laws of nature." According to etymological usage (*ἠθικά*, from *ἔθος*, custom), that department of moral science which treats of practice as tested by moral law. "The derivation of the term is to some extent misleading; for Ethics (*ἠθικά*) originally meant what relates to character as distinct from intelligence. . . According to the Aristotelian view—which is that of Greek Philosophers generally, and has been widely taken in later times—the primary subject of ethical investigation is all that is included under the notion of what is ultimately good or desirable for men." Sidgwick, *Hist. of Ethics*, 1.

Aristotle says that *ἠθος*, which signifies moral character, is derived from *ἔθος*, custom; since it is by repeated acts that character, which is a moral habit, is acquired. *N. Eth.*, lib. ii. Cicero says, *Quia pertinet ad mores quod ἠθος illi vocant, nos eam partem philosophiæ, De moribus appellare solemus; sed decet augentem linguam Latinam nominare Moralem.* *De Fato*, lib. ii.

Custom (*ἔθος*) gives too wide reference, as human practice is wider than right conduct. The natural history of customs is an inquiry quite beyond Ethics proper, yet ultimately related with it, and even involved so far in Ethical science. A philosophy of practice seeks the basis of rational conduct, that is, the rule or law of conduct, which determines the "ought" for a rational agent. For this, we must pass behind custom, to seek the reason for action,—the ultimate reason which must be the test

of all conduct. Hence it is impossible to sever conduct or character from intelligence. Ethics deals with action, and with its end, even with the common end, as that may be expressed in "the common good;" but it does so only by seeking the common reason for acting in a given way, the rational basis for "oughtness" in conduct.

Aristotle, *N. Ethics*, *Eud. Ethics*, *Magna Moralia*; Spinoza, *Ethics*,—Existence interpreted, *sub specie Eternitatis*, Kant, *Metaphysic of Ethics*; Hegel, *Grundlinien der Philosophie des Rechts*; English expounders of Hegelian Ethics; Bradley's *Ethical Studies*; Green, *Prolegomena to Ethics*; Muirhead, *Elements of Ethics*. Intuitionism, Reid, *Active Powers*; Stewart, *Active Powers*; Calderwood, *Handbook of Mor. Phil.*; Porter, *Elements of Moral Science*. Natural Evolution, Spencer, *Data of Ethics*. Bain, *Emotions and Will*; Darwin, *Descent of Man*; Sidgwick, *Methods of Ethics*; Leslie Stephens, *Science of Ethics*; Williams, *Ethics on the Theory of Evolution*; On modes of stating the problems, Sorley's *Ethics of Naturalism*, ch. i.; History, Sidgwick's *Outlines of the History of Ethics*.

ETHNOLOGY (*ἔθνος*, a tribe; and *λόγος*, science).—A scientific account of the comparative organisation of tribes or nations. Spencer's *Descriptive Sociology*; *Ethnological Journal*.—*Vide* ANTHROPOLOGY.

EUDÆMONISM (*εὐδαιμονία*, happiness).—That system of moral philosophy which makes happiness the test of rectitude. On the common basis of the agreeable or desirable, there are two forms of Ethical Theory: (1) the Hedonistic (*ἡδονή*, pleasure, *voluptas* of the Latins), which makes personal pleasure the law of life, and is known as Egoistic Hedonism; (2) the Eudæmonistic (or Eudaimonistic), which makes the general happiness the test, termed also Altruistic Hedonism, and Utilitarianism, its maxim being "the greatest happiness of the greatest number."

Bentham, the original expounder of the Greatest Happiness theory, considers the term "Happiness" not always appropriate, because it "represents pleasure in too elevated a shape" to include the whole requirements of life. *Deontology*, i. 78.

In ancient philosophy, the Socratic view was that "to live well is to live pleasantly." *Protagoras*, 351; Plato's criticism

of the doctrine that pleasure is the chief good, *Philebus*; the Aristotelic view that Happiness is the end, *N. Eth.*, in the successive books of which the definition of Happiness is expanded. That pleasure is the chief good was affirmed by Aristippus of Cyrene; and again by Epicurus, thus becoming a recognised doctrine with the Cyrenaics and Epicureans.

Its modern upholders are Hobbes, who is Egoistic. More recent thinkers take the Altruistic form of the theory,—Bentham, Hume, James Mill, J. S. Mill,—who introduces difference of quality in pleasure,—Bain, Sidgwick.

Hobbes' *Leviathan*; Bentham's *Introduction to the Principles of Morals and Legislation*, and his *Deontology*; Hume's *Inquiry*; Jas. Mill's *Fragment on Mackintosh*; J. S. Mill's *Utilitarianism*; Bain's *Emotion and Will*, and *Moral Science*; Sidgwick's *Methods of Ethics*.

For criticism of this philosophy, Kant's *Ethics*, Semple or Abbott; Grote's *Exam. of Utilit. Phil.*; M'Cosh's *Exam. of Mill's Phil.*; Lorimer's *Institutes of Law*; Calderwood's *Handbook of Moral Philosophy*; Bradley's *Ethical Studies*; Green's *Proleg.*

“The principle of happiness may, indeed, furnish maxims, but never such as would be competent to be laws of the will, even if universal happiness were made the object. For, since the knowledge of this rests on mere empirical data, since every man's judgment of it depends on his own particular point of view, which is itself, moreover, very variable, it can supply only *general* rules, not *universal*.” Kant's *Practical Reason*; Abbot's *Kant's Theory of Ethics*, p. 125.

EVIDENCE (*e*, from; and *video*, to see).—Testimony for reality. For the facts of consciousness, we need no evidence; for recognition of any existence beyond, evidence is required. Evidence is direct, that of the senses; indirect, the result of observations, and inductions, and testimony of others. J. S. Mill makes *Logic* “a connected view of the Principles of *Evidence*.” Locke, *Essay*, bk. iv. ch. xv.; Butler, *Analogy*, introd.; Glassford, *Essay on Principles of Evidence*; Campbell, *Philosophy of Rhetoric*, bk. i.; Gambier, *On Moral Evidence*; Sir G. C. Lewis, *On Authority in Matters of Opinion*.—*Vide* TESTIMONY.

Administration under Civil Law is largely dependent on critical regard to the laws of evidence. This need arises from the imperfection of evidence in cases submitted for judicial test, and from common practice of deception. Advance in judicial procedure is associated with more exact interpretation of the laws of evidence, in acceptance of the fundamental maxim, that a man is to be held innocent until he is proved guilty.

EVIL.—1. *Physical.*—Suffering in every form,—that from which sentient existence shrinks ; in human experience, that which requires voluntary endurance, and even moral courage, to bear. 2. *Moral.*—Wilful transgression of moral law,—wrong-doing in every form,—violation of the rights of others. Besides these uses, “Evil” is employed in a Metaphysical sense to apply to *limitation*, the absence of power to accomplish results such as intelligence may contemplate as desirable.

The great perplexity for philosophy is the existence of moral evil,—of a state of will at variance with moral law, involving the awful consequences apparent in society. The final form of the problem is,—Why does the Absolute Being allow the continuance of moral evil? The question seems transferable into this other: Why does a Being of Absolute Goodness provide for the powers and possibilities of moral life? This is the root perplexity, aggravated by the large significance given to it, under the laws of social life and of heredity, involving the innocent with the guilty, in the terrible consequences of Evil-doing. Does Divine power pervade all, so that all is the expression of the necessity of the Divine perfection?

The problem of the origin of Evil has engaged philosophic thought from the earliest ages. Sometimes it has been taken in wider form, as concerning pain ; sometimes in the higher form, as concerned with moral evil. Philosophic thought has been turned towards every possible hypothesis. Seeking the explanation of existence in some material principle, Evil has been traced to matter regarded as eternal,—the material (*ὕλη*, *materia*) on which the First Cause operates. Plato, *Timæus*, 28 *seq.* Under this hypothesis of Pre-Socratic philosophy, Evil is limitation, defect in the Universe. An Eternal Dualism is represented in a more extreme antagonism of coeval

powers. Good and Evil, under the Manichean doctrine, which is the product of Eastern thought; and has been accepted in our day by J. S. Mill, *Essays on Religion*, 116. This implies limitation of Divine power, restriction of the First Cause. The next alternative is the transition from Dualism to Monism, in which God is all, and all things are thought as in God. The result is Pantheism, with an optimistic view of things, so that "evil" is included in the good, as if it were merely limitation. This is the product of Spinoza's doctrine of Substance; and of Hegel's doctrine of the Idea. Under both schemes, the Universe is the manifestation of the Divine: moral Evil is denied. Reaction against this has produced Pessimistic thought, which represents existence itself as an evil, to cease to exist being the one good,—Schopenhauer, Hartmann. The next alternative holds that the First Cause is the Eternal One,—the Creator of the Universe, and its sustainer under fixed law,—involving Dualism in history; the supernatural and nature. With origin of moral life comes appearance of moral evil, as a product of free-will. An irrational principle does not rule the world, but an intelligent. There is no absolute individualism in human history, but man is responsible under rational law, and "a man just and pious and entirely good" is a man "loved of God." Plato, *Philebus*, 84. "The Good is not the cause of all things, but of the good only. Then God, if he be good, is not the author of all things, as the many assert, but he is the cause of a few things only, and not of most things that happen to men; for few are the goods of human life, and many are the evils; and the good is to be attributed to God alone. Of the evils, the causes are to be sought elsewhere, and not in him. Plato, *Republic*, ii. 379, Jowett; Plato, *Timæus* and *Gorgias*; Aristotle, *Metaph.*, i. 6; Cicero, *De Finibus*; On the problem of Evil; King, *Origin of Evil*, Government of the World; Butler, *Analogy of Religion to the Constitution and Course of Nature*; Lotze, *Philos. of Relig.*, ch. 7, "Of Government." Vindication of Hegelianism, Green, *Proleg. to Ethics*; E. Caird, *Evolution of Religion*, vol. ii. p. 82,—"On the Unity of Pantheism and Monotheism."

EVOLUTION.—Progress of being in continuity by development from within, under external conditions conducive to

advance. Evolution has been held as applicable to the Universe as a whole ; or as an interpretation of the history of life on the earth, a hypothesis in natural history.

Evolution was a conception which ruled Pre-Socratic thought in the early Elemental Theories, as preliminary to the search for the first principle of movement. Throughout all this speculation the material universe was most in thought ; ethical considerations were little in view. The object of study was nature ; the search was for the ἀρχή, the principle of things ; and the range of inquiry concerned the natural elements, water, air, and fire. This inquiry engaged Anaximander, Anaximenes, Heraclitus, and others. The philosophy of Socrates was the reaction against this form of speculation, by concentrating on thought itself, and on the main problems of the rational life.

Modern Philosophy, stimulated by advance in all departments of science, shows everywhere the influence of the conception of Evolution ; giving Synthesis precedence in philosophy.

Herbert Spencer has developed a "Synthetic Philosophy" of the Universe, stimulated and sustained by the success of Darwin in his theory of the natural history of species. Herbert Spencer's starting-point is the assumption that there is "throughout the universe an unceasing redistribution of matter and motion." His main contention is that "this redistribution constitutes evolution," working throughout the entire universe, including the planetary system, and leading everywhere to "a transformation of the homogeneous into the heterogeneous." Behind all this, lies the unknown and unknowable Absolute, without which the evolution of the universe were unthinkable. We must regard every phenomenon as "a manifestation of an unlimited and incomprehensible power." In this conclusion Religion and Science are reconciled. The "rhythm of evolution and dissolution, completing itself during short periods in small aggregates, and in the vast aggregates distributed through space, completing itself in periods which are immeasurable by human thought, in so far as we can see, universal and eternal." This general scheme is illustrated in the history of life on the earth. Matter and motion are presented in a higher phase. Movement is seen within each life for its unfolding ;

dependence on external conditions gives activity wider scope ; the activity of organic life shows "acts adjusted to ends," life and environment act and react ; out of this comes advancing differentiation. The application of this appears "in the aggregate of organisms throughout geologic time ; in the mind ; in society ; in all products of social activity." Human life and activity are included under the single law, and in this way Ethical thought is interpreted. At this stage, intelligence becomes an instrument for securing "completeness," the "adjustments" which secure gain to the individual life, or to that of the species. "Ethics has for its subject-matter that form which universal conduct assumes during the last stages of its evolution." Herbert Spencer's Works, *First Princ. ; Biology ; Psychol. ; Data of Ethics*. See Collins, *Epitome of the Synthetic Philos.*, preface by Spencer, containing summary of the Theory.

Darwin deals with Evolution as a theory explanatory of the origin of species by natural selection. In all its main features, the theory belongs to observational science within the department of natural history. It enters the field of philosophy proper only when seeking to include Man. Its fundamental considerations are these,—rapid multiplication of life in all forms ; variations manifest in the history of species ; struggle for existence in view of the limitation of supplies ; survival of the strongest or fittest for enduring the struggle ; consequent advance by natural selection. The struggle concerns each individual life, and next each species, so leading to a modification of species in the history of the earth. Beyond this arises the question as to the law of heredity, and the transmission of variations. This has led to the dispute as to Pangenesis, as held by Darwin, *Origin of Species*, implying transmission of acquired characteristics ; and continuity of Germ-Plasm, as held by Weismann, *Essays on Heredity*, implying non-transmission of acquired characters. Whichever theory prevail, "natural selection" is a self-acting process, leading to incessant change in the history of life ; and so acting, leads to the preservation of favourable variations. Natural history is the history of the modification of species ; and amongst species the struggle is

severest between allied species. Embryology, with its evidence for continuity, is auxiliary to the theory.

Darwin's entrance on the sphere of Philosophy is by way of "comparison of the mental powers of man and of the lower animals,"—*Descent of Man*, chaps. iii. and iv.,—and consideration of the "development of the intellectual and moral faculties during primeval and civilised times," ch. v. His method is still observational, and does not sufficiently include Psychological Analysis and Synthesis. The distinction between neurosis and psychosis, between nerve sensibility and rational reflection, is not clearly held; and on this account the evolution of thought from sensation is not formally elucidated. For Darwin, the Ethical Problem is one of social life and interest, rather than of ultimate principle.

Darwin, *Origin of Species*; *Descent of Man*; Alf. Russell Wallace, *Darwinism*; Haeckel, *General Morphology*; *Evol. of Man*; Huxley, *Man's Place in Nature* and *Essays*; Romanes, *Darwin and after Darwin*; Hartmann, *Philos. of the Unconscious*, transl., ii. 298; Murphy's *Habit and Intelligence*, 2nd ed.

On the inadequacy of the theory, Lloyd Morgan, *Animal Intelligence*, chap. xii., "Mental Evolution"; Calderwood, *Relations of Mind and Brain*; *Evolution and Man's Place in Nature*; Huxley, *Evolution and Ethics*; Pollock, *Mind*, i. 334; and Sidgwick, *Mind*, i. 52; Spencer, *Defence of Data of Ethics*, *Mind*, vi. 82.

On Hegel's scheme of *Dialectic Evolution*, by manifestation of the Idea in Nature and in Spirit, see DIALECTIC.

EXCLUDED MIDDLE (Principle, Law, or Axiom of), *Principium exclusi medii inter duo contradictoria*.—"By the principle of 'Contradiction' we are forbidden to think that two contradictory attributes can both be present in the same object; by the principle of 'Excluded Middle' we are forbidden to think that both can be absent. The first tells us that both differentia must be compatible with the genus: I cannot, for example, divide animal into animate and inanimate. The second tells us that one or the other must be found in every member of the genus." Mansel, *Prolegom. Logica*, ch. vi. p. 208.

The formula of this principle is—"Everything is either A or not A : everything is either a given thing, or something which is not that given thing." That there is no mean between two contradictory propositions is proved by Aristotle. *Metaphysics*, bk. iii. ch. vii. "So that if we think a judgment true, we must abandon its contradictory ; if false, the contradictory must be accepted." Thomson, *Laws of Thought*, pt. iv. sec. 114. Hegel maintains that all existence being a development, truth lies in the synthesis of the diverse. Ueberweg, in defence of the axiom, says that Hegel's attack arises from a confusion of *contrary* with *contradictory*. *System of Logic*, pp. 263 ff., Lindsay's transl.

EXISTENCE.—*Vide* BEING, and ESSENCE.

EXOTERIC.—Philosophic teaching popular in substance and form, in contrast with ESOTERIC.

EXPECTATION.—The mind's forecast. Anticipation of recurrence of experience in accordance with the fixed laws of nature ; and farther, of increase of knowledge because of the recognised rational basis of things.

Kant speaks of the conditions of sensation, as "the anticipations of sensation" or "Anticipation of Perception." "All cognition by means of which I am enabled to cognise and determine *a priori* what belongs to empirical cognition, may be called an anticipation." *Pure Reason*, Tr. Meiklejohn, 126. "Perception is empirical consciousness, that is to say, a consciousness which contains an element of sensation." *Ib.*

According to the more common usage, expectation is the assurance the mind has of the recurrence of events ; and the hope of possible good as the reward of effort. So J. S. Mill, in dealing with "the stream of consciousness," admits that it is a stream which must be represented as having reference both to what is behind and what is before. "That the human mind is capable of expectation." *Exam. of Hamilton's Philos.*, ch. xi. Relations of Memory and Expectation, Sully's *Psychology*, 252.

EXPERIENCE (*ἐμπειρία*, *experientia* ; German, *Erfahrung*).—The knowledge involved in the facts of consciousness ; *a posteriori* knowledge, in contrast with *a priori* ; knowledge accumulated by observation, and by induction from observation.

According to Aristotle, *Analyt. Poster.*, ii. 19, from sense comes memory, but from repeated remembrance of the same thing we get *experience*. Bacon and Spinoza characterise our ordinary unsystematic sense-knowledge as *experientia vaga*. On the other hand, "my experience is what I agree to attend to." James, *Prin. of Psychol.*, i. 402.

"*Experience*, in its strict sense, applies to what has occurred within a person's own knowledge. More frequently the word is used to denote that judgment which is derived from *experience in the primary sense*, by reasoning from that in combination with other data." Whately's *Logic*, app. i.

The Experiential Philosophy makes observation the sole test of reality, denying the *a priori* recognition of universal truth. Locke was the leader of this school, in open antagonism to Descartes.—See EMPIRICAL.

The reaction against Experientialism was led by Reid in Britain, and by Kant in Germany. The Critical Philosophy of Kant, conspicuous in Modern Philosophy, is due to the scepticism which roused him from dogmatic slumber, and led to the criticism of Knowledge for discovery of its *a priori* conditions. Since Kant, it stands a leading question in Epistemology,— "What are the conditions of certainty in experience?" Still more recently, in the revival of Psychological study, as a reaction against Hegel, "Selective attention" has become a leading feature in Epistemology. In this connection it may well be urged "how false a notion of experience that is which would make it tantamount to the mere presence to the senses of an outward order." James, *Principles of Psychol.*, i. 402.

"The 'simple impression' of Hume, the 'simple idea' of Locke, are both abstractions, never realised in experience." *Ib.*

The place which experience holds under a scheme giving prominence to an *a priori* basis for Epistemology will appear from this sentence of Kant: "The possibility of experience is that which gives objective reality to all our *a priori* cognitions." *Pure Reason*, Meiklejohn's transl., 118. For Kant's view that "the objects of experience are not things in themselves," *ib.*, 308.

In Britain, the leaders of the Experiential School have been

Locke, Hume, Jas. Mill, J. S. Mill, Bain, Herbert Spencer. Its critics have been Reid, Stewart, Hamilton, Mansel, Martineau, in Britain; M'Cosh and Noah Porter in America. Kant is the conspicuous leader, with whatever force he is himself criticised, as by Hutchison Stirling and the Neo-Kantian school. "Experience is trained by *both* association and dissociation, and psychology must be writ *both* in synthetic and in analytic terms." James, *Prin. of Psychol.*, i. 487. Cycles, *Progress of Experience*.

EXPERIMENT.—Application of tests for the discovery of truth, in cases in which direct observation is possible. Repetition of experiments supplies the data for induction.

In *experiment* we do not passively observe Nature, we *interrogate* her (Bacon). "Reason must approach nature with the view, indeed, of receiving information from it, not, however, in the character of a pupil, who listens to all that his master chooses to tell him, but in that of a judge, who compels the witnesses to reply to those questions which he himself thinks fit to propose." Kant, *Pure Reason*, pref. to 2nd ed., p. xxvii., Meiklejohn's transl. "For the purpose of *varying the circumstances*, we may have recourse (according to a distinction commonly made) either to observation or to experiment; we may either *find* an instance in nature suited to our purposes, or, by an artificial arrangement of circumstances, *make one*." Mill, *Logic*, bk. iii. ch. vii. sec. 2. "When, as in astronomy, we endeavour to ascertain causes by simply watching their effects, we *observe*; when, as in our laboratories, we interfere arbitrarily with the causes or circumstances of a phenomenon, we are said to *experiment*." Thomson and Tait's *Natural Philosophy*, vol. i. sec. 369. Observation proceeds from effect to cause: experiment from cause to effect. Some sciences are most observational, as Astronomy; others are more experimental, as Chemistry. But the two methods run into one another; and the distinction between them is one rather of degree than of kind.—*Vide*. EXPERIENCE.—[J. S.]

EXTENSION (*extendo*, to stretch from), **Physical**, is that essential property of matter by which it occupies space; it implies length, breadth, and thickness. According to the Cartesians, *extension* is the essence of matter, as *thought* is the

essence of mind (*res extensa* and *res cogitans*). Spinoza made Thought and Extension the attributes of the One Substance. According to Locke, Extension is one of the *primary qualities* of matter.

Locke, *Essay on Human Understanding*, bk. ii. ch. xiii., also ch. xv.; Reid, *Inquiry*, ch. v. secs. 5, 6; *Intellectual Powers*, essay ii. ch. xix.; Hobbes, *Phil. Prima*, pars ii. cap. viii. sec. 1; Kant, *Pure Reason*, *Æsthetic*.

Logical.—The number of objects included under a term. *Intension* or *comprehension* means the common characters belonging to such objects.

“I call the *extension* of an idea those subjects to which that idea applies . . . as the idea of triangle in general extends to all the different sorts of triangles.” *Port Roy. Logic*.

EXTERNALITY or **OUTNESS.**—Separateness from self; known object as distinct from the knower, and from his experience. In contrast with self, it is the not-self. In contrast with experience through sensation, it is the cause of nerve excitation apart from the conditions of consciousness. It has two aspects—externality to consciousness, and externality in space. Our perceptions are not in space, while the objects of perception are.

“The things perceived by sense may be termed ‘external,’ with regard to their origin, in that they are not generated from within by the mind itself.” Berkeley, *Principles of Knowledge*, part i. § 90; Fraser’s *Selections*, 4th ed., 107.

“By means of the external sense (*das äussern sinnes*) (a property of our mind) we represent to ourselves objects as without us.” Kant, *Pure Reason*, *Transc. Æsth.*, sec. 1.

“Object is not the other side of the subject, but the larger circle which includes it.” Lewes, *Probs. of Life and Mind*, i. 195. We are “in direct contact with nature through sense, and indirect contact through thought.” *Ib.*, ii. 121; Criticism of Lewes, Watson, *Kant*, 92; Spencer’s view of an external world, *First Principles*, part ii. c. 3, p. 158; Criticism of it, Watson, *Kant*, c. ix.; Ferrier, “Crisis of modern speculation,” *Lectures*, vol. ii. p. 261; “Consciousness of External Reality,” Hodgson, *Mind*, x. 321; “Every thing or quality felt is felt in

outer space," James, *Text-Book of Psychology*, p. 15. "The recognition of things as external . . . seems to imply *outness* in relation to the bodily organism." Sully, *Psychol.*, 204.

EYE.—The terminal organ for vision is the most complex of all the apparatus of special sense. In front is a translucent cornea, consisting of layers of soft fibres; behind this, a chamber filled with watery fluid; next, the iris; next, the crystalline lens; behind this, the large chamber known as the vitreous body; spread over its membrane is the fine network of nerve fibre, known as the retina, the sensitive terminal fibrils of the optic nerve. Opposite the pupil is the yellow spot, occupied with slender cones and rods. Behind this, the optic nerve passes away to the basis of the brain. Foster's *Physiology*, b. iii, c. iii.

FACT (*facio*, to do).—That which is done or accomplished; occurrence; that which is known as existing.

"By a matter of *fact*, I understand anything of which we obtain a conviction from our internal consciousness, or any individual event or phenomenon which is the object of sensation." Sir G. C. Lewis, *Essay on Influence of Authority*.

FACTITIOUS (*factito*, to make).—The result of human work or art, as distinguished from a product of nature; self-produced in consciousness.

Descartes calls those ideas *factitious* which are the product of imagination, originated by ourselves, as opposed to *innate* and to *adventitious*.

Among ideas, "some appear to me to be innate, others adventitious, and others to be made by myself (factitious);— . . . inventions of my own mind." Descartes, *Meditation*, iii, p. 38, Veitch's transl.

FACULTY.—A power of the mind, to the action of which a distinct class of facts in consciousness may be referred. The correlative designation is *capacity*, susceptibility to impression from action, whether external or internal, thus including physical sensibility and emotion.

Analysis of experience leads to the recognition of distinct orders of phenomena; classification of these guides to the discrimination of powers and capacities not immediately known. As the stream of consciousness is one, all facts within

it must be regarded as the outgoing of the energy of life, with attendant susceptibilities. "Faculties" are not separate entities in mind, but distinct phases of potentiality, known as contributing to the history of experience.

Modern psychology is antagonistic to construction of philosophy of mind on the basis of Faculties; first, because the completion of the work begun in analysis must be discovery of the natural synthesis of experience; and second, because of the dangers of abstraction which beset reasoning on the basis of faculties. A philosophy of the structure of experience must be the main object of psychology. Hence, *Synthesis* is the leading characteristic of modern philosophy. This does not involve a negative to the recognition of faculties, previously common, but criticism of the references made to these, and insistence on the canon that the coherence of phenomena must present the ultimate problem in psychology.

Thought-power is the central and dominant power of rational life, by use of which the life itself, as well as all that belongs to the external world, is to be interpreted. Allowing for a physical basis in *neurosis*, thought-power is the basis of *psychosis*, faculties being potentialities, not separate entities. Locke, *Essay*, ch. xxi. secs. 17, 20; Reid, *Intellectual Powers*, essay i. c. 1; Hamilton, *Metaph.*, Lect. x.; Feuchtersleben, *Medical Psychol.*; Morell, *Psychol.*; Kant, *Pure Reason*, Meiklejohn's Tr., 81, 237; Hutchison Stirling, *Text-Book to Kant*, 30; Lotze, *Microcosmus*, transl., 169; Mansel's *Proleg. Log.*, 38; Martineau, *Types of Ethical Theory*, ii. 10.

FAITH.—*vide* BELIEF.

FALLACY (A).—An *apparent* argument, professing to decide the matter at issue, while it really does not. Fallacies were arranged by Aristotle in two classes—according as the *fallacy* lay in the *form*, *in dictione*; or in the *matter*, *extra dictionem*. They have been variously arranged by subsequent logicians, but Aristotle's classification has been generally adopted. Fallacy may occur in either *Deductive* or *Inductive* inference. In the former, it may be (1) formal or (2) material.

I. Fallacies in *Deduction*:—

(1) *Formal*, or strictly logical. (a) Those arising from the

breach of any of the rules of syllogism, as *Illicit Major* or *Undistributed Middle*. (b) Those which do not directly break any syllogistic rule, and therefore may be called *semi-logical*. The *fallacies*, in form or expression, are the following :—

Fallacia Æquivocationis, arising from the use of an equivocal word ; as, the dog is an animal ; Sirius is the dog ; therefore Sirius is an animal.

Fallaciæ Amphiboliæ, arising from doubtful construction ; *quod tangitur a Socrate illud sentit ; columna tangitur a Socrate ; ergo columna sentit*. In the major proposition *sentit* means “Socrates feels.” In the conclusion, it means “feels Socrates.”

Fallacia Compositionis, when what is proposed in a *divided* sense, is afterwards taken collectively ; as, two and three are even and odd ; five is two and three ; therefore five is even and odd.

Fallacia Divisionis, when what is proposed in a *collective*, is afterwards taken in a divided sense ; as, the planets are seven ; Mercury and Venus are planets ; therefore Mercury and Venus are seven.

Fallacia Accentus, when the same thing is predicated of different terms, if they be only written or pronounced in the same way, *e.g.*, the commandment “Thou shalt not bear false witness against thy neighbour,” may be made by a slight emphasis of the voice on the last word to imply that we are at liberty to bear false witness against other persons (Jevons, *Logic*, p. 174).

Fallacia Figuræ Dictionis, when, from any similitude between two words, what is granted of one is, by a forced application, predicated of another ; as, projectors are unfit to be trusted ; this man has formed a project, therefore this man is unfit to be trusted.

(2) *Material* fallacies, or fallacies *extra dictionem* :—

Fallacia Accidentis, when what is *accidental* is confounded with what is *essential*. This occurs in the application of general rules to particular cases, where the peculiarity of the given case invalidates the application. We are forbidden to kill ; using capital punishment is killing ; we are forbidden to use capital

punishment. The *converse fallacy of accident* occurs when we argue from a particular case (ignoring its peculiarity) to a general rule.

These two fallacies are sometimes termed respectively, *a dicto simpliciter ad dictum secundum quid* and *a dicto secundum quid ad dictum simpliciter*.

Fallacia a Dicto Secundum quid ad Dictum Simpliciter, when a term is used in one premiss in a limited, and in the other in an unlimited sense ; as, the Ethiopian is *white as to his teeth* ; therefore he is *white*. The converse *a dicto simpliciter ad dictum secundum quid* is also fallacious—Whatever gives pain should be abstained from ; therefore surgical operations should be abstained from.

Fallacia Ignorationis Elenchi, or *Irrelevant Conclusion* (literally, ignorance of the refutation), is when the point in dispute is intentionally or ignorantly overlooked, and the conclusion is therefore irrelevant. The principal forms of it are :—

1. Mistaking the question or the point at issue, as when the *existence* of the external world is proved against Berkeley, who did not *deny* its existence, but put forward a theory of the *nature* of that existence.

2. Imputing consequences, or the constructive sophism ; as, “Phrenology leads to Materialism, therefore it is not true.”

3. Introduction of rhetorical expedients, as irony, personalities, appeals to the passions, &c. Such are the *argumenta ad hominem, ad populum, &c.*

Fallacia Petitionis Principii (begging the question), when that is taken for granted which ought to have been proved. This fallacy generally occurs in a lengthened argument, and is called *argument in a circle*.

It may occur, however, in a single *proposition*, e.g., *circulus in definiendo*, where a term is defined by its synonym ; or even in a single *term* or *Question-begging Epithet*, as *innovation*, a term which, to the minds of many, implies the idea of wrongness, and therefore, when applied to any proposal, is sufficient without argument to condemn it.

Mill maintains that, “in every syllogism, considered as an argument to prove the conclusion, there is a *petitio principii*.

When we say, *All men are mortal, Socrates is a man, therefore Socrates is mortal*, it is unreasonably urged by the adversaries of the syllogistic theory, that the proposition *Socrates is mortal*, is presupposed in the more general assumption, *All men are mortal*; that we cannot be assured of the mortality of all men, unless we are already certain of the mortality of every individual man; that, in short, no reasoning from generals to particulars can, as such, prove anything, since from a general principle we cannot infer any particulars but those which the principle itself assumes as known." *Logic*, bk. ii. ch. iii. sec. 2.

Fallacia a non Causa pro Causa, appears in the following forms:—(1) *Non vera pro vera*; as, when Descartes explains sensation by animal spirits, the existence of which is not ascertained. (2) *Non talis pro tali*; as, when the Norwegians attributed the disappearance of the fish from their coast to the introduction of inoculation. (3) *Post hoc ergo propter hoc*, when accidental antecedence and subsequence are regarded as cause and effect, e.g., the superstition of sailors that it is unlucky to start on a Friday, because such starts have been followed by accidents.

Fallacia Plurium Interrogationum, when two or more questions, requiring each a separate answer, are proposed as one, so that if *one* answer be given, it must be inapplicable to *one* of the particulars asked. The *fallacy* is overthrown by giving to each particular a separate reply. It is the *Fallacia Compositionis* in an interrogative form.

II. Fallacies of *Induction*. These are classified by Fowler as follows:—

(a) Fallacies incident to the subsidiary processes—(1) Fallacy of non-observation; (2) of mal-observation; (3) errors in Classification, Nomenclature, Terminology, and Hypothesis.

(b) Fallacies incident to the Inductive process itself, or Fallacies of Generalisation—(1) *Inductio per Enumerationem simplicem*; (2) Errors common to the employment of the various Inductive Methods; (3) False Analogy.

On Inductive Fallacies,—Fowler's *Inductive Logic*, c. 6; Mill, *Logic*, bk. v.

FAMILY (The).—In the order of nature, the beginning of

social organisation. The family is the social unit, by its constitution, guiding us in social organisation on a wider scale. From the family, as from a root, spring wider relations of social life. Beyond these, the will of the community determines the form of civil organisation.

Ethics investigates the duty of man in all the relations of life—those of the Family, Society, and the State.

Duty first appears as represented in natural relations. The bond of union, which is natural, is of necessity also Ethical. The feeling which attaches parents and children is natural feeling, such as appears in animal life in a germinal form, specially in *maternal* feeling as that is characteristic of animals. Such speciality disappears in the human family, because of the rational basis of action. Duty is a conception superior to feeling, and calling forth deeper and more sacred forms of feeling in family life. In this appears the distinctiveness in human life of the marriage relation, and the constitution of the family, disclosing the ethical basis of social life.

FANCY (*φαντασία*, a making visible).—A play of thought and feeling around a subject, lending to it human interest.

“It is obvious that a creative imagination, when a person possesses it so habitually that it may be regarded as forming one of the characteristics of his genius, implies a power of summoning up, at pleasure, a particular class of ideas; and of ideas related to each other in a particular manner; which power can be the result only of certain habits of association which the individual has acquired. It is to this power of the mind, which is evidently a particular turn of thought, and not one of the common principles of our nature,” that we are to apply the name *fancy*. “The office of this power is to collect materials for the imagination; and therefore the latter power presupposes the former, while the former does not necessarily suppose the latter. A man whose habits of association present to him, for illustrating or embellishing a subject, a number of resembling or analogous ideas, we call a man of *fancy*; but for an effort of imagination various other powers are necessary, particularly the powers of taste and

judgment; without which we can hope to produce nothing that will be a source of pleasure to others. It is the power of *fancy* which supplies the poet with metaphorical language, and with all the analogies which are the foundation of his allusions; but it is the power of imagination that creates the complex scenes he describes, and the fictitious characters he delineates. To *fancy* we apply the epithets of rich or luxuriant; to imagination, those of beautiful or sublime." Dugald Stewart's *Elements*, c. v., Hamilton's ed., vol. ii. 259.

Fancy was called by Coleridge "the aggregative and associative power." Wordsworth says:—"To aggregate and to associate, to evoke and to combine, belong as well to *imagination* as to *fancy*. But *fancy* does not require that the materials which she makes use of should be susceptible of change in their constitution from her touch; and, where they admit of modification, it is enough for her purpose if it be slight, limited, and evanescent. Directly the reverse of these are the desires and demands of the *imagination*. She recoils from everything but the plastic, the pliant, and the indefinite." Wordsworth, preface to *Works*. "The contrast between *passive* and *active* imagination appears to correspond to one aspect of the ill-defined and much-discussed distinction between *Fancy* and *Imagination*." Sully, *Outlines of Psychology*, p. 304, note.

FATALISM (*fatum*, the thing spoken).—The doctrine that all human actions and forms of experience are inevitably determined in the sequence of events, being fixed by an irrevocable decree. "*Fatum* is derived from *fari*; that is, to pronounce, to decree; and in its right sense it signifies the decree of Providence." Leibnitz, *Fifth Paper to Dr Clarke*. *Fate* or destiny has commonly been regarded as a power superior to gods and men—swaying all things irresistibly. Hence, the personification,—The Fates.

"Fatalists, that hold the necessity of all human actions and events, may be reduced to these three classes:—*First*, such as asserting the Deity, suppose it irrespectively to decree and determine all things, and thereby make all actions necessary to us. . . . *Secondly*, such as suppose a Deity that, acting

wisely, but necessarily, did contrive the general frame of things in the world, from whence, by a series of causes, doth unavoidably result whatsoever is so done in it; which *fate* is a concatenation of causes, all in themselves necessary, and is that which was asserted by the ancient Stoics, Zeno and Chrysippus. And, *lastly*, such as hold the material necessity of all things without a Deity; which *fate* Epicurus calls τὴν τῶν φυσικῶν εἰμαρμένην." Cudworth, *Intell. Syst.*, bk. i. ch. i.

Cicero, *De Fato*; Plutarch, *De Fato*; Grotius, *Philosophorum Sententiæ De Fato*.

FECHNER'S LAW.—*Vide* PSYCHO-PHYSICS.

FEELING.—The word is used to describe all forms of sensibility, whether physical or mental in origin. It stands as the general term for all passive experience in consciousness. In a more restricted sense, it is applied to the pleasurable and painful as these depend on the conditions of intelligent life. The distinction between *neurosis* and *psychosis*, in the matter of feeling, depends upon our distinguishing of the source or occasion of experience, as external to consciousness or restricted to consciousness. Feeling belongs to every sensori-motor system; in higher form, it depends on intelligence.

Mental phenomena have been classified as Cognitions, Feelings, and Volitions. Feelings so included belong to the conscious life.

Occasionally, consciousness itself has been represented as a phase of feeling. James Mill, *Analysis*, i. 10, or i. 12. But consciousness must belong to the cognitive; it is the characteristic of the activity of the intelligent life.

In no case can subjective feeling be a test of objective truth. At the utmost, it is an accompaniment of intelligence.

The classification of our feelings is beset with difficulties, on account of their number and variety. Beyond those which are physical, feelings vary according to the exercise and application of intelligence. Bain has given prominence to the problem of the development and relations of the feelings, *Emotions and Will*, distinction of Egoistic and Social Feelings. Sully, *Human Mind*, ii. 90; Development of Moral Feeling, *ib.*, ii. 163. Darwin, in the interest of Evolution, deals with the moral

sense as if it were matter of social instincts, or of sociability. *Descent of Man*, c. iv. p. 98. His general proposition is,—“Any animal whatever, endowed with well-marked social instincts, the parental and filial affections being here included, would inevitably acquire a moral sense.”

James proposes a wide use of the term “feeling,” so as to include under it “mental states at large, irrespective of their kind.” “We ought to have some general term by which to designate all states of consciousness merely as such, and apart from their particular quality or cognitive function.” *Prin. of Psychology*, i. 185. He adds—“My own partialty is for either feeling or thought.” It is doubtful if any term can be found serviceable, which is descriptive of a distinct class of phenomena, and is nevertheless arbitrarily extended so as to designate all, under warning in the context that the wider usage is meant.

FELICIFIC (*felix*, happy, *facio*, to make).—In Utilitarianism, applied to actions productive of happiness. All *felicific* action is included within the morally right. Sidgwick, *Methods of Ethics*, b. iv. iii., has adopted the term to escape from undue expansion of the formula “the greatest happiness of the greatest number,” by allowing reference to “disposition generally felicific.” “The measurement that ethical Hedonism requires” needs, however, to be accounted for.

FIGURATIVE CONCEPTION.—A Hegelian expression for popular, as opposed to philosophical, thought. “In our ordinary state of mind, thoughts are overgrown and combined with the sensuous or mental material of the moment; and in reflection and ratiocination we blend our feelings, intentions, and conceptions with thoughts.” “The specific phenomena of feeling, perception, desire, and will, so far as they are *known*, may be in general described under the name of Conception, as picture-thinking or materialised thought; and it may be roughly said, that philosophy puts thoughts, categories, or, in more precise language, adequate notions, in the place of semi-pictorial and material conceptions. Conceptions such as these may be regarded as the metaphors of thoughts and notions. But to have these figurate conceptions does not imply that we know their significance for thinking, or the thoughts and rational

notions to which they correspond. Conversely, it is one thing to have thoughts and general ideas, and another to know what conceptions, perceptions, and feelings correspond to them." *Logic of Hegel*, Wallace, ch. i. sec. 3.—[J. S.]

FINAL CAUSE.—The end of action as contemplated by an intelligent agent. The "Final Cause" is the fourth in Aristotle's enumeration of causes. *Metaph.* iii. 1, where it is identified with "the good." The final cause is the end, τὸ τέλος; that on account of which the action is done, τὸ οὖ ἐνεκα. The word "Cause" is used in this case with regard to purpose as an element in causality. As purpose and end are correlative, their harmony in nature is indicated by the phrase "final cause." The end as contemplated is described as the *design*.

When applied to the Universe as related to the First Cause, the argument from design is an argument as to final causes, inasmuch as the purpose of the Intelligent First Cause may be interpreted by recognition of the adaptation of means to ends. Teleology is an essential part in the history of thought concerning known existence. Its problem is this,—Are there ends in Nature?

Spinoza, in accordance with his monistic theory, strongly opposes a doctrine of Final Causes,—Appendix to part i. of the *Ethics*. Cudworth's *Intellectual System*, bk. i. c. 5; Berkeley's *Principles of Human Knowledge*, § 107,—Fraser's *Selections*, 2nd ed., p. 105; 4th ed., p. 118; Janet, *Final Causes*; Flint, *Theism*.—*Vide TELEOLOGY*.

FITNESS and UNFITNESS.—These terms belong to the phraseology of the Ethical theory, finding the basis of morals in the order of things under the moral government of the world. The Stoics introduced the formula which made virtue conformity with nature,—τῇ φύσει ὁμολογουμένως ζῆν,—*convenienter naturæ vivere*.

In the history of British thought, prominence was given to this representation early in the 18th century, when Clarke, upholding the eternal and immutable obligations of morality, represented that these were "incumbent on men from the very nature and reason of things themselves." Thus "right" was "the fitness of things," *aptitudo rerum*; wrong, "the unfitness

of action," to the order of the universe. Samuel Clarke, *The Being and Attributes of God*, and *The Obligations of Natural Religion*.

"Our perception of vice and its desert arises from, and is the result of, a comparison of actions with the nature and capacities of the agent. And hence arises a proper application of the epithets incongruous, unsuitable, disproportionate, unfit, to actions which our moral faculty determines to be vicious." Butler, *Dissertation on Virtue*.

Every theory cast in this form depends upon an accepted interpretation of "Nature," for "fitness" and "unfitness" are only relative terms.

FORCE.—The efficiency of energy in moving objects, or effecting some change in the relations of things. Force is the measure of "Energy" when acting in given circumstances.

According to Leibnitz, force and substance are inseparable. Leibnitz, *De primæ Philosophæ emanatione et de notione substantiæ*.

According to the Atomic Theory, the phenomena of matter were explained by attraction and repulsion. Modern Materialism explains all changes by these two factors—matter and force. Büchner's *Matter and Force*; Spencer's *First Principles*; Tait's *Recent Advances in Physical Science*.

FORM.—(1) The outward figure or shape of a material object; (2) the model or ideal of an object according to its species; (3) the law of activity, appearing in procedure; (4) the condition of knowledge in contrast with the *material* of knowledge.

Aristotle placed *Form* (τὸ εἶδος) in contrast with *Matter* (ἡ ὕλη). *Form* was his substitute for Plato's *Idea*. It has not, like the latter, an existence apart from the sensible thing, but is realised in its *matter*. It is defined by Aristotle as λόγος τῆς οὐσίας.

In the Critical Philosophy of Kant, *form* is the *a priori* condition of knowledge.

"That which in the phenomenon corresponds to the sensation, I term its *matter*; but that which secures that the content of the phenomenon can be arranged under certain

relations, I call its *form*." Kant, *Pure Reason*, Meiklejohn's transl., p. 21. Stirling, *Text-Book to Kant*, pp. 24-34. "Any individual object is to us," "a compound of matter from the senses, and of form from the mind," p. 24. The Kantian distinction between Form and Matter is criticised by Lotze, *Logic*, 457, Bosanquet's transl. Caird's *Philos. of Kant*, vol. i., 227.

Aristotle, *Metaphysics*, bks. vii., viii.; Ueberweg's *History*, i. 157; Schwegler's *History*, 8th ed., i. 105. For Scholastic usage, Ueberweg's *History*, i. 399.

FORTITUDE.—*Vide* COURAGE.

FREE-WILL.—Power of self-determination, under guidance of intelligence, involving rational superiority to sensibilities and motive forces. The ability to act according to principle or rule, in the government of impulses and restraints.

"The will is that kind of causality belonging to living agents in so far as they are rational, and freedom is such a property of this causality as enables them to originate events, independently of foreign determining causes." Kant, *Metaphysic of Ethics*, ch. iii., Semple's Tr., 3rd ed., p. 57; Abbot's, 3rd ed., p. 65. Calderwood's *Handbook of Mor. Phil.*, early editions, p. 165, 14th ed., p. 170. On the genesis of the doctrine of Free-Will, Sully, *Sensation and Intuition*. On "Conation or Volition" in relation to organic experience, Sully's *Human Mind*, ii. pp. 172-295. Sidgwick regards Free-Will as an unsolved problem,—*Methods of Ethics*, p. 45. Bain's *Emotions and Will*, part ii. c. vii. and chap. xi. Spencer, *Principles of Psychology*, part iv. c. ix.; J. S. Mill, *Exam. of Hamilton's Philosophy*, c. xxv. and note, *Logic*, bk. iii. c. 5, vol. i. 419; Bradley, *Ethical Studies*, Essay i.; Green's *Proleg.*, b. ii. c. i.; Höffding, *Psychology*, ch. vii.; Lotze, *Practical Philos.*, div. i. ch. iii.; *Microcosmus*, bk. i.; James, *Principles of Psychology*, ii. 569.

"Freedom" has had a double reference in philosophy. 1. Freedom from the dominion of external force,—freedom "from co-action"; 2. Freedom in and by intelligence, first in the regulation of thought itself, and further, in the government of motive forces in accordance with the dictates of intelligence. This is the Libertarian doctrine. "Liberty of indifference" is an inconsistency, which has no representation in the philosophy

of our day. To attribute this to Libertarians, as some still do, is to misunderstand the accepted theory of Free-Will.

Difference as to the mode of attaining knowledge of moral distinctions involves nothing in fact or in theory, bearing on the question of freedom in willing. Whether our knowledge is intuitively or inductively reached, nothing is in either case decided affecting the psychology of will. "As soon as the knowledge of the value of different forms of conduct exists, it is precisely by this means that the Will of the spirit, who decides for one form or the other, becomes responsible." Lotze, *Pract. Philos.*, transl. Ladd, § 22, p. 46.

"Freedom of Will" does not imply a breach of relation between motive and volition. The contrary allegation comes more frequently from the Utilitarian school, than from the Hegelian school. Nevertheless, the law of *continuity* suggests antagonism to a doctrine of free-will, involving "deliberate preference." On the other hand, we have to explain "those long deliberations" to which Herbert Spencer refers. *Data of Ethics*, p. 105.

Whether a man deliberates, and decides in accordance with deliberation, is a distinct problem in the history of rational life. It is quite independent of any genetic theory, whether biological or dialectic. Hegel's theory of Free-Will as "realised intelligence" is inadequate. Development or unfolding of intelligence is a problem quite distinct from the conditions of regulation of conduct in view of moral law. "A necessary sequence between motive and volition, and again between volition and act, may not be a necessitated sequence, as sensation is a necessitated sequence from contact of an external object with the healthy human organism, or as the understanding is necessitated to use the categories, if it is to work at all. Will is essentially different in nature from nerve-sensibility, and also from understanding; but however such difference be expressed, there can be no exception to the law that all changes are caused." Green, "On Freedom," *Works*, vol. ii. 308. This statement throughout harmonises with the Libertarian position.

For criticism of Kant's theory, Lotze, *Practical Philos.*,

transl. Ladd, § 18, p. 38. E. Caird, *Critical Philos. of Kant*; Noah Porter, *Kant's Ethics* (Griggs, Chicago, U.S.A.).

Physico-Psychology cannot include the phenomena of Will. To deal with "the feeling of effort," is to leave untouched the history of effort, as known in consciousness. Muscular movement coming under laws of motor action, belongs to the field of *neurosis*. Whether it is "voluntary," cannot be decided by means of physiological observation. The experimentalist's observations are of only one side of the activity. The dependence on Will remains. "The only ends which follow *immediately* upon our willing seem to be movements of our own bodies." "Voluntary movements must be secondary, not primary functions of our organism." James, *Principles of Psychology*, i. 486-7. These are results of observation *ab extra*. The conditions of "our willing" remain undiscovered. For this, we need a philosophy of "a supply of ideas," and of their use in consciousness.

Carpenter's *Mental Physiology*, c. viii.; Wundt, *Ethik*, lect. iii.; Münsterberg, *Die Willenshandlung*.

FRIENDSHIP.—Special attachment between individuals. On its Ethical significance, Greek thought dealt with much fulness. Aristotle, *N. Ethics*, bks. viii. and ix.; Cicero, *De Amicitia*. For the Greek mind, Friendship stood as the most definite form of benevolence.

FUNCTION (*fungor*, to perform; *functio*, an executing).—The form of activity proper to an organ or power, when operating for the attainment of an end. Action indicates the nature of the power at work.

The proper action of a power is sometimes taken to indicate the specific character of the power. "To say that contraction is the function of the muscle only means that it is a certain form and a certain condition of the muscle in movement." Höffding, *Psychol.*, ch. ii. § 8, *b*; Tr., p. 60; G. H. Lewes, *Psychol.*, 27; cf. *Physical Basis of Life*, p. 280; Hamilton, *Metaph.*, lect. x.

GANGLION.—"A swelling or knot from which nerves are given off as from a centre." Glossary to Darwin's *Origin of Descent*, p. 408.

There is a unifying process at every advanced point in the nerve-system. "The nerve strand for a special muscle or order of muscles is connected with other strands further up the system ; and thus, in order to secure co-ordination or symmetrical movement of the several parts of the limbs, the arrangement of the nerve plexus becomes more complicated." Calderwood, *Relations of Mind and Brain*, p. 41. In accordance with this general plan, the grand nerve-centres are made up of ganglionic masses.

GENERALISATION "is the act of comprehending, under a common name, several objects agreeing in some point ;" or of drawing a general conclusion from repeated observations. It is also used to *designate* the general proposition or truth which results.

Generalisation proper is almost synonymous with *Induction*. The law of gravitation, *e.g.*, is a great generalisation. Experience gives the particular ; from the particular we rise to the general, affirming that all heavy bodies gravitate. In this is implied a belief that there is order in nature, that under analogous circumstances the same phenomena will occur.

"The establishment of general propositions" is Induction, "a process of inference ; it proceeds from the known to the unknown." "A general proposition is one in which the predicate is affirmed or denied of an unlimited number of individuals." Mill, *Logic*, bk. iii. ch. i. ii. "When once the differentiation of the individual-idea from the class-idea has advanced far enough, the process of generalisation proper, or the grasp of common or general qualities, is able to be carried out." Sully, *Human Mind*, i. 418.

GENERIC IMAGES.—*Vide* CONCEPTION.

GENIUS (from *geno*, the old form of the verb *gigno*, to produce).—(1) In ancient usage, a tutelary god or spirit, appointed to watch over an individual. (2) As the character and capacities of men were supposed to vary according to the higher or lower nature of their *genius*, the word came to signify the natural powers and abilities of men. (3) In modern usage a high degree of productive or inventive mental power ; spiritual gift appearing in original production.

It is "the intellect constructive which we popularly designate by the word genius." "To genius must always go two gifts, the thought and the publication. The first is revelation, always a miracle. . . . It is the advent of truth into the world, a form of thought now for the first time bursting into the universe, a child of the old eternal soul, a piece of genuine and immeasurable greatness." Emerson, *Essays*, first series.

On relations to the laws of Heredity, Galton, *Hereditary Genius*, 1892, in which, however, the author regretting his previous choice of title, restricts now his references to ability "such as a modern European possesses." Preface.

GENUS.—A higher class which includes a lower, called its *species*. The genus has the larger extension; the species the larger intension. The distinction between genus and species is a relative one, the class which is called a species in reference to the next higher becoming in turn a genus in reference to the next lower class. The *summmum genus* is defined as that genus which, being a genus, can never become a species; *i.e.*, it is the term in any series whose extension is the largest possible. It has been denied that there is any *summmum genus*; but whether there be any such absolutely or not—as *Being*—each science, at all events, and each particular inquiry, has its own *summmum genus*, beyond which it never goes in the ascending series of species and genera, *e.g.*, *Organism* is the *summmum genus* of Biology. Those genera which become in turn species are called *subalternate*. The *proximate* genus of any species is that between which and the species no other genus intervenes, *e.g.*, *animal* is the proximate genus of man.—[J. S.]

GERM-PLASM.—"That substance which contains all the primary constituents of the whole organism." Weismann, *Germ-Plasm*, transl. by Parker and Rönnefeldt.—*Vide* HEREDITY.

Herbert Spencer, *Principles of Biology*; Darwin, *Variation of Animals and Plants*; Francis Galton, "Theory of Heredity," *Journal of the Anthropological Institute*, 1875; Brooks, *Laws of Heredity*, 1883; Weismann, *Continuity of Germ Plasm*, 1885; *Essays on Heredity*, 2 vols.; *Germ Plasm*, 1892. Calderwood, *Evolution and Man's Place in Nature*, ch. 5.

SNOSTICISM (γνώσις, knowledge, as distinct from πίστις,

faith).—A general name for the speculation of the first and second centuries of the Christian era, in attempting to develop a Christian philosophy. This speculation was concerned mainly with the questions of creation, imperfection, and moral evil. The Jewish Christians and the Alexandrian had a conspicuous share in this movement. It was largely influenced by Platonic thought, and by Hellenic and Pagan mythology. The theories included the hypotheses of a Demi-urge or world-creator, and supra-mundane Æons, occupying an intermediate position between the First Cause,—the One, and the universe. These Æons were represented as active agents in the government of the world.

After the authors of *Clementines* and *The Epistle of Barnabas*, the most important leaders were Cerinthus, Saturninus, Carpocrates, Basilides the Syrian, and Valentinus.

Ueberweg's *Hist. of Phil.*, i. 280; Neander's *Church History*, vol. ii., Eng. transl.; Bunsen's *Analecta Ante-Nicæna*; Schaff's *History of the Christian Church*, vol. i.; Schaff's *Religious Encyclopædia*, based on the *Real-Encyclopædie* of Herzog.

GOD, Anglo-Saxon, *G. Gott*,—the Supreme Being,—*Deus*, Θεός, the Eternal,—the First Cause. The Greek and Latin terms were applied also to spiritual beings superior to man.

The true conception of God and of His relation to the universe is the supreme problem of philosophy.—*Vide* ABSOLUTE, INFINITE.

ANCIENT PHILOSOPHY.—The *Fragments of Xenophanes* include the following passage:—"There is one God, the greatest among gods and men, neither in form nor in thought like unto mortals," Frag. i. The received mythology sufficiently accounts for the contrast with gods and men. Ueberweg, *Hist. of Philos.*, i. 52; Burnett, *Early Greek Philosophy*, 115.

Socrates, in rebutting the charge of Atheism, grants that he does not believe in the "gods which the city recognises." *Apology*, 26. He maintains, however, that "the God orders him to fulfil the philosopher's mission," 28. He adds,—“I do believe there are gods, and in a far higher sense than that in which any of my accusers believe in them,” 35.

For Plato's several representations of God as First Cause, Zeller's *Plato and the Older Academy*, 267, note. Plato's view

of God, *Republic*, bk. ii. 364, 379, 380, 382. "God is one and the same, immutably fixed in his own proper image." "God is perfectly simple and true, both in word and deed."

MODERN PHILOS.—DESCARTES makes "the idea of God" the fundamental certainty. *Method*, pt. iv.; *Meditations*, iii. and v.; *Principles of Philos.*, sec. xiii.

KANT considers the Idea of God, as related with that of the Soul, and the Universe. *Pure Reason*, Transcendental Dialectic, bk. i. sec. iii., "System of Transcendental Ideas" Arguments for the Being of God, bk. ii. c. iii. sec. 3, Meiklejohn's transl., p. 225 and p. 359.

HEGEL names the absolute source of all, "The Idea," "The Notion," "The Ego." "The concrete totality we name God." *Werke*, vi.; *Encyclopädie*, § 51, p. 113; Wallace's *Hegel*, p. 92. "Very obscure certainly in many respects is the system of Hegel, and in none, perhaps, obscurer than in how we are to conceive God as a subjective spirit, and man as a subjective spirit; and God and Man in mutual relations." Hutchison Stirling's *Secret of Hegel*, i. 244. Proofs for the existence of God, Lotze, *Philos. of Relig.*, chap. i.

GOOD.—(1) Common term for the desirable; (2) the quality of an action which is in harmony with moral law; (3) "The Good," *Summum Bonum*, the chief end of life,—that which all seek after (Aristotle); (4) "The Good," the Absolute,—God (Plato). *Good* under an evolution theory, see Spencer, *Data of Ethics*, p. 21.

The discussion of The Chief God, the *Summum Bonum*, that which constitutes the true end and blessedness of human life, is the main characteristic of the discussion of Ethics under the ancient philosophy.—*Vide* BONUM.

GRAMMAR (Universal).—The Greeks included under τέχνη γραμματιστική the art of writing and reading letters. Language, as the expression of thought, becomes a manifestation of the laws of thought.

In Greek, the same word, λόγος, means reason and language. In Latin, reasoning is called *discursus*; hence discourse; man is a being of "large discourse."

Plato, *Cratylus*. Aristotle, *Analytics*. Max Müller, *Science*

of *Language*. "Language as a human function." James, *Principles of Psychology*, ii. 356.

HABIT (ἔξις, *habitus*).—(1) The law, "Practice gives facility;" (2) the physical or mental acquisition resulting from repeated action. In *Ethics*, a virtue, or acquired tendency, favouring well-doing. By Aristotle ἔξις is defined, *Metaph.*, lib. iv. cap. xx., to be, in one sense, the same with διάθεσις, disposition, a bias of the nature. In the *N. Ethics*, ii. 5, Aristotle uses the term as equivalent to virtue, a personal excellence resulting from deliberate regard to the great end of life.

Mental *Habits* or excellences of disposition are distinguished by Aristotle into intellectual and moral. The Intellectual virtues are intelligence, wisdom, prudence. The Ethical are liberality and self-control. Aristotle, *N. Ethics*, lib. i. ch. xiii.; ii. ch. v. and vi.; v. cap. i.

"Habit is a principle which obtains in the whole of our mental life." Sully, *The Human Mind*, i. 57. The application of the law appears first, however, in the history of physical processes. "There is no other *elementary* causal law of association than the law of neural habit." James, *Text-Book of Psychology*, 256.

HALLUCINATION (*alucinator*, to wander in mind).—A delusion consequent on a diseased condition of brain, abnormal excitement, or confusion of mind.

Hallucination is connected with erroneous interpretation of impression, or of experience. Its physical basis is excitability of sensory nerves; its mental, imagination. Excitation of sensory nerves may occur in other than the usual ways. Such action may be interpreted as if it were normal. Excitation of the nerve system by application of electricity has shown that the nerve-fibre can be artificially thrown into a state of activity. The experiments of Fritsch and Hitzig in 1870, and of Ferrier in 1873,—Ferrier's *Functions of the Brain*,—illustrated strikingly the possibility of abnormal excitation. I have given a detailed account of these experiments in *The Relations of Mind and Brain*. Their value as contributions towards explanation of Hallucination is obvious. Stimulation of the nerve of vision

will convey to us a sense of light, when light has not acted on the terminal organ. So it may happen with other nerves of special sense—hearing, smell, taste. The demand for guarded judgment is constant. The phenomena of brain disorder, of dreaming, and of hypnotism supply in three distinct groups evidence of delusion. The first group gives results of disease; the second group shows the activity of thought and imagination during physical repose; the third group shows the results of playing upon the sensibilities of the nerve system, and voluntarily inducing nerve excitation in an abnormal manner. The practice of this last leads readily to chronic excitability, entailing Hallucination, from which escape is not easy.

HAPPINESS.—(1) Agreeable experience in its widest sense; (2) the higher phases of such experience, resulting from harmonious action of our powers, under guidance of intelligence. For this higher experience the word Happiness (*ἔνδαιμονία*) is more commonly reserved, while pleasure (*ἡδονή*) is used to designate the lower and more transient forms of agreeable experience. *Happiness* is desired for its own sake. But “it is only the pleasure of a definite moment which is perfectly obvious to us.” Lotze, *Pract. Philos.*, p. 11. On the ambiguity of the term “Happiness,” see Sidgwick, *Methods of Ethics*, p. 128; Green’s Intro. to *Hume’s Ethical Works*, vol. ii. 12.

The Greeks called the sum-total of the pleasure allotted to a man *εὐτυχία*, that is, good hap (*εὖ*, well; *τυγχάνω*, to hit); or, more religiously, *εὐδαιμονία*, that is, favourable providence (*εὖ*, well; *δαίμων*, a genius, or divinity). Coleridge’s *Aids to Reflection*.

To live well and to act well is synonymous with being happy. Aristotle, *N. Ethics*, lib. i. cap. iv. Happiness, according to Aristotle, is the blessedness of a perfect state, in which the whole powers of the agent are in full activity.

HAPPINESS THEORY OF MORALS.—That which finds in the agreeable, the criterion of rectitude; on a lower and wider basis, Hedonism; on a higher and more restricted, Eudaimonism. In accordance with its fundamental position, all agreeable experience is included within the area of morals. But, in a rational life, comparisons are inevitable. The agree-

able, considered in itself alone (fulfilled desire), cannot supply the rule of life. The necessity for limitation becomes apparent. For an intelligently directed life, there must be regard to our good on the whole. Prudential considerations direct attention to the utility of actions. Hence the theory is named *Utilitarianism*. The standard of morals under this scheme thus becomes the agreeable, as determined by a rational nature, with regard to our good on the whole. After the discrimination of pleasures, with computation of their comparative value, must come the reference to the interests of all moral agents, as these may be involved in the results of individual conduct.

The earlier phase of this theory made *individual* happiness the test of right conduct, hence named Egoistic Hedonism, Individualism. Hobbes, while stating and expounding "eternal laws of nature," says, "whatsoever is the object of any man's appetite or desire, that is it which he for his part calleth good." *Leviathan*, pt. i. c. 6.

The later phase makes the *general happiness* the basis for judging of action. This is Altruistic Hedonism or Eudaimonism, having as its formula—"The Greatest Happiness of the Greatest Number." Ethical thought here assumes the form of a process of calculation, stimulated by desire of satisfaction. Bentham, J. S. Mill, Bain, Sidgwick, and Leslie Stephen are its chief supporters. J. S. Mill distinguishes between pleasures by reference to their quality. He gives the preference to the higher or more intellectual pleasures, constituting those who have had experience of all kinds the sole judges. Bain criticises adversely this position, alleging that J. S. Mill has given to opponents "important strategic positions," and maintaining that he "ought to have resolved all the so-called nobler or higher pleasures into the one single circumstance of including, with the agent's pleasure, the pleasure of others. This is the only position that a supporter of Utility can hold to." *J. S. Mill: A Criticism*, p. 113. Sidgwick, *Methods of Ethics*, has combined an intuitional element with the Utilitarian Ethics, and has critically examined the rival claims of Utilitarianism and Intuitionalism. Sidgwick's object is to secure at the outset

a basis for moral obligation. Criticism of Sidgwick, Bain, *Mind*, i. 179; Calderwood, *Mind*, i. 197.

The Socratic philosophy contained a large Eudaimonistic element. The *Ethics* of Aristotle rests on the basis that Happiness, as connected with the perfection of human life, is the end of action. Modern Utilitarianism stands in relation with the Cyrenaic and Epicurean Schools of Ancient Philosophy. Modern Utilitarianism,—Hobbes, *Leviathan*; Paley, *Moral Philosophy*; Bentham, *Principles of Morals and Legislation*; J. S. Mill, *Utilitarianism*; Bain, *Moral Science*, and *Criticism of J. S. Mill*; Sidgwick, *Methods of Ethics*; Leslie Stephen, *Science of Ethics*.

There are various forms of presentation. "Actions are right in proportion as they tend to promote happiness; wrong as they tend to produce the reverse of happiness." Mill, *Utilitarianism*, p. 9. "Conduct is a whole, and, in a sense, it is an organic whole, and aggregate of interdependent actions performed by an organism." Spencer, *Data of Ethics*, p. 5. "Ethics has for its subject-matter that form which universal conduct assumes during the last stages of its evolution." *Ib.*, p. 19. "The good is universally the pleasurable." *Ib.*, p. 30. "Morality is utility made compulsory." Bain's *Emotions and Will*, 3rd ed., p. 276. "Morality is an institution of society. The powers that impose the obligatory sanction are Law and Society, the community acting through the Government, by public judicial acts, or, apart from the Government, by the unofficial expressions of disapprobation, and the exclusion from social good offices." *Ib.*, p. 264.

As to the analysis and interpretation of the notion Duty,—Mill says,—“The ultimate sanction of all morality is a subjective feeling in our mind.” “The internal sanction of Duty, whatever our standard of duty may be, is one and the same,—a feeling in our own mind, a pain more or less intense, attendant on a violation of duty.” “This feeling, when disinterested, and connecting itself with the pure idea of duty, . . . is the essence of conscience.” *Utilitarianism*, pp. 41, 42. “It is, in fact, very idle to talk about duties; the word itself has in it something disagreeable and repulsive.” Bentham, *Deontology*,

1, 10. Bain restricts obligation to "the class of actions enforced by the sanction of punishment." *Emotions and Will*, 254. "The imperious word *ought* seems merely to imply the consciousness of the existence of a persistent instinct." Darwin, *Descent of Man*, 116.

HARMONY.—The conception that a philosophy of life can be found in the harmony of relations, guiding action according to definite laws of computation, was a favourite one in Ancient Philosophy. It is a natural outcome of the Pythagorean theory of numbers, leading to their doctrine that the soul is a harmony, and consequently that "Virtue is harmony, and also health, and universal good, and God; on which account everything owes its existence and consistency to harmony." Diog. Laert., lib. viii. ch. i.; Zeller, Ueberweg, Schwegler, *in loc.* This conception is prominent in Plato's Ethics, as he makes melody and harmony symbolic of true discipline, music and gymnastic being the two sides of education. *Republic*, bk. iii. 410.

Pre-established Harmony is the designation of Leibnitz for the divinely established relations in the Universe,—the movements of monads, and the relation between body and mind. *Syst. Nouv.*, p. 14; Erdmann's ed., pp. 127–133 *seq.*, *Théodicée, La Monadologie*.

HATE.—Revsulsion and antagonism of feeling in presence of evil, real or supposed. Ethical Hate is antagonism to moral evil, as the object of condemnation, but includes desire for the good of the agent who is condemned. In this lies the harmony of Natural and Christian Ethics, with its distinctive maxim,— "Love your enemies." Ethical Hate is the force of antagonistic feeling in harmony with moral law, and working for its vindication.

HEDONISM (*ἡδονή*, pleasure) is the doctrine that the chief good of man lies in the pursuit of pleasure. According as personal pleasure alone is considered, or general happiness, it is Egoistic Hedonism or Altruistic Hedonism.—*Vide* HAPPINESS THEORY.

HEREDITY (*hereditas*, inheritance).—The laws of reproduction of life, in accordance with which each individual life is

an inheritance through progenitors. Life comes from life ; its origin is the blending of elements from both parents ; the germ is according to the species of the parents ; it contains family characteristics according to the doctrine of *amphi-mixis*. All life is a heritage.

Scientific investigation into the laws of heredity belongs to the nineteenth century. Inquiry has been largely quickened under the influence of the hypothesis of evolution.

“Germ-plasm” is the name for the substance which provides for reproduction of organic existence. The cell which is the centre of life is so minute as to render investigation very difficult, thus involving us in much uncertainty. The size of the germ-cell is not greater than one-hundredth part of an inch ; it may be much less. Reproduction in its simplest form arises from division of the cell itself, so constituting two distinct cells. This gives the most vivid illustration of continuity. When difference of sex has appeared, the origin of a new life is by the fusion of the nuclei of two parent cells, constituting a germ cell. In the natural history of this cell, under fixed conditions, organic life will be unfolded according to the species to which the germ-cell belongs. “Like produces like.” As to possible variation, diversity of sex provides for increase of this. Each individual life is in some measure a continuity of life from both parents. Characteristics of both parents belong to its history. Beyond this we are left in uncertainty as to the scientific explanation of diversities in family groups, as these depend on undiscovered details in the unfolding of the germ-cells.

How “a single cell, out of the millions of diversely differentiated cells which compose the body,” having become “specialised as a sexual cell,” obtains its characteristics, and unfolds them, is a question involving a host of perplexities.

Herbert Spencer assumed “physiological units,” alike in kind, of which the body is composed. *Principles of Biology*. Germ-cells he takes to be certain small groups of these units, having the power of reproducing the whole. Darwin propounded a theory of *Pangensis*,—transference through the blood of “gemmules” from all parts of the parent organism,

which, being gathered into the germ-cell, make it capable of reproducing the parent form. *Variations of Animals and Plants*. Weismann denies that the germ-plasm is produced from the parent body in this way. He has substituted the hypothesis of continuity of germ-plasm, through successive generations, giving off from its substance so much for the origin of each fresh life. He holds that "each determinant occupies a fixed position in the germ-plasm," and each "must form a complete unit by itself, from which nothing can be removed, and to which nothing can be added." This is the basis on which he has denied the transmission of acquired characteristics.

I have stated these theories more fully, and have considered their value, in *Evolution and Man's Place in Nature*, c. v.

Herbert Spencer, *Principles of Biology*; Darwin, *Variation of Animals and Plants*; Galton, "Theory of Heredity," *Journal of the Anthropological Institute*, 1875; Brooks, *Laws of Heredity*, 1883; Weismann, *Continuity of Germ-Plasm*, 1885; *Essays on Heredity*, 2 vols.; *Germ-Plasm*, 1892.

Outstretching all this investigation as to the relation of the Germ-cell to Organism, there is the large question as to the genetic theory of *Mind*. Mind seems distinct from the functions of organism; at the same time, "mind," immanent in organism, yields its own witness for heredity.

HETEROGENEITY (ἕτερος, other; γένος, kind).—Separateness of nature, in contrast with homogeneity, likeness of nature. According to Spencer's definition, the transition in Evolution is "from an indefinite, incoherent *homogeneity*, to a definite, coherent *heterogeneity*." *First Principles*, p. 396.

HETERONOMY (ἕτερος, other; νόμος, law).—An accepted law of conduct which is inconsistent with our Reason. This is Kant's designation for a false principle of morals. "If the Will seeks the law which is to determine it, *anywhere else* than in the fitness of its maxims to be universal laws of its own dictation; consequently, if it goes out of itself and seeks this law in the character of any of its objects, there always results *heteronomy*." Kant's *Ethics*, Abbott's transl., p. 59; Semple's, p. 93.

HISTORY (Philosophy of).—The system of rational

principles guiding the development of events in History. Vico and Hegel are conspicuous as leaders in developing the philosophy of History. The conception of Evolution, both in its physical and dialectical forms, has been brought to bear upon History. Historians of Philosophy also have traced in the development of philosophical systems the necessary march of reason. Hegel, *Philosophy of History*, transl. in Bohn's series; Flint, *Vico*, in *Philosophical Classics*; Zeller, *History of Greek Philosophy*, introd.; Schwegler, *History of Philosophy*, introd., Stirling; Flint, *Philos. of History in Europe*; Flint, *Historical Philosophy in France, and French Belgium and Switzerland*, 1893.

HOLINESS.—Moral purity. "The perfect accordance of the Will with the moral law is holiness." Kant, *Practical Reason*, bk. ii. ch. ii. sec. 4; Abbott's transl. *Kant's Ethics*, 218.

HOMOGENEITY (ὁμοιος, like; γένος, kind).—Likeness of nature. Applicable (1) to such similarity among organisms that they can be classified as a species; (2) to parts of organic existence; (3) to thoughts closely allied.

HOMOLOGUE (ὁμός, like; λόγος).—"The corresponding parts in different animals are called *homologues*." Whewell.

"A *homologue* is defined as the same organ in different animals, under every variety of form and function. Thus, the arms and feet of man, the fore and hind feet of quadrupeds, the wings and feet of birds, and the fins of fishes, are said to be *homologous*." M'Cosh, *Typical Forms*, p. 25.

Homology is "that relation between parts which results from their development from corresponding embryonic parts." Darwin's *Origin of Species*, Glossary, Dallas, p. 409.

HOMOTYPE (ὁμός, like; τύπος, type).—"The corresponding or serially repeated parts in the same animal are called *homotypes*. Thus, the fingers and toes of man, indeed the fore and hind limbs of vertebrate animals generally, are said to be *homotypal*." M'Cosh, *Typical Forms*.

HUMANITY (Religion of).—See POSITIVISM.

HYLOZOISM (ὑλη, matter; and ζωή, life).—The doctrine that life and matter are inseparable; frequently appearing in

Ancient Philosophy with speculation as to the soul of the world, and the producing power of nature. Strato of Lampsacus held that the ultimate particles of matter were each and all of them possessed of life. Ueberweg, *Hist.*, i. 183. The Stoics, without attributing life to every particle of matter, held that the universe, as a whole, was a being animated by a principle which gave to it motion, form, and life. Zeller, *Stoics*, etc., 125. This doctrine appeared also among the followers of Plotinus, who held that the soul of the universe animated the least particle of matter. Spinoza asserted that all things were alive in different degrees. *Omnia quamvis diversis gradibus animata tamen sunt.*

HYPOSTASIS.—*Vide* ENTITY, SUBSISTENTIA.

HYPOTHESIS (*ὑπόθεσις*, supposition).—In Logic, Aristotle gave the name *θέσις* to every proposition which, without being an axiom, served as the basis of demonstration, and did not require itself to be demonstrated. *Anal. Post.*, i. 2, 72. He distinguished two kinds of thesis, the one which expressed the essence of a thing, and the other which expressed its existence or non-existence. The first is the *ὀρισμὸς* or definition; the second, the *ὑπόθεσις*. The *Hypothesis* he defines as “the taking one of two opposite alternations as true, while it might either be true or false.” *Anal. Post.*, i. 2. He thus distinguishes between *demonstrative* and *hypothetical* inference (*ἡ δεικτικῶς ἢ ἐξ ὑποθέσεως*).

The scientific significance of *Hypothesis* could not be appreciated till the advance of science had shown the necessity of a logic of Science or of Induction, of which the doctrine of Hypothesis is an important part. Accordingly, it is only in modern times that the nature and importance of Hypothesis have been carefully attended to.

Mill defines Hypothesis as “any supposition which we make (either without actual evidence or on evidence avowedly insufficient) in order to endeavour to deduce from it conclusions in accordance with facts which are known to be real. It is, in short, an *assumed* law or cause.”

“Since an hypothesis framed for the purpose of scientific inquiry must relate to something which has real existence (for

there can be no science respecting non-entities), it follows that any hypothesis we make respecting an object, to facilitate our study of it, must not involve anything which is distinctly false, and repugnant to its real nature." Mill, *Logic*, bk. ii. c. v. § 2.

When a phenomenon that is new to us cannot be explained by any known cause, we try to reconcile it to unity by assigning it *ad interim* to some cause which may appear to explain it.

"An hypothesis sufficiently confirmed establishes a *Theory*, *i.e.*, the explanation of phenomena from their universal laws." Ueberweg, *Logic*, p. 506, Lindsay's transl. "Nearly everything which is now theory was once hypothesis." Mill, *Logic*, bk. iii. ch. xiv. sec. 5. As to the relative value of conflicting hypotheses, Ueberweg says, *Logic*, p. 506, Lindsay's transl. :—"The hypothesis is the more improbable in proportion as it must be propped up by artificial *auxiliary hypotheses* (hypotheses subsidiaræ). It gains in probability by *simplicity*, and *harmony* (or partial) *identity* with other probable or certain presuppositions (. . . . causæ præter necessitatem non sunt multiplicandæ). The content of the hypothesis acquires absolute certainty, so far as it succeeds in recognising the supposed reason to be the only one possible by excluding all others conceivable, or in proving it to be the consequence of a truth already established." The course of science is through successive hypotheses to more adequate knowledge. "We arrive, by *means* of hypotheses, at conclusions *not* 'hypothetical.' Sometimes a single case is sufficient to decide between two rival hypotheses—a case which cannot be explained by the one, and can *only* be explained by the other." Such a case is called an *Experimentum Crucis*. Reid, *Intellectual Powers*, Essay i. ch. iii. ; Bacon, *Nov. Org.*, i. 104 ; Leibnitz, *Nov. Ess.*, 4, ch. xii. ; Whewell's *Nov. Org. Renov.* ; Mill, *Logic*, bk. iii. ch. xiv. ; Ueberweg, *System of Logic*, sec. 134.—[J. S.] "The discipline of Pure Reason in Hypothesis." Kant, *Pure Reason*, Meiklejohn, transl., p. 467.

HYPOTHETICAL.—Applied both to Propositions and to Syllogisms. The hypothetical *proposition*—sometimes called *conjunction*—is a species of conditional proposition. It consists of two propositions—called respectively antecedent and con-

sequent—related to each other as condition and conditioned, the truth of the one depending on the truth of the other, *e.g.*, “If it rains I shall not go.” The hypothetical or conjunctive *syllogism* is one whose major premiss is a hypothetical proposition, its minor premiss and conclusion being categorical. It is either *constructive* (*modus ponens*) or *destructive* (*modus tollens*); in the former case the antecedent is affirmed, in the latter the consequent denied. There is no other alternative. Hence the fallacies of *affirming the consequent* and *denying the antecedent*.

—[J. S.]

HYPOTHETICAL DUALIST.—*Vide* COSMOTHEMIC IDEALIST.

IDEA (*ἰδέα εἶδος, forma, species, image*).

I. Common modern usage. In its widest sense, every product of intellectual action, or even every modification of consciousness. In more restricted use, a mental image of an external object, or class of objects. II. Special usage. According to Plato, Ideas are the archetypes of the manifold varieties of existence in the universe. These archetypes belong to the supersensible world. In the philosophy of Kant, Ideas are products of the Reason (*Vernunft*), transcending the conceptions of the understanding, and named by him “transcendental ideas.” In the system of Hegel, the Idea is the Absolute from which all comes and toward which the Evolution of being is moving.

I. *Common Modern Usage.*—Descartes used the word to designate any impression made upon the brain, but more commonly a representation in consciousness, of an external object,—“All that is in our mind when we conceive a thing, in whatever manner we may conceive it.” Descartes, *Lett.* lxxv.; Garnier IV. 319. He even applies it “to the thing represented.” Pref. to the *Medit.* See Veitch’s note ii., 3rd ed., p. 276.

“It is the term which, I think, serves best to stand for whatsoever is the object of the understanding, when a man thinks; I have used it to express whatever is meant by *phantasm, notion, species*, or whatever it is which the mind can be employed about in thinking.” Locke, *Essay*, bk. i. ch. i.

Mill has said:—"The always acute and often profound author of *An Outline of Sematology* (Mr B. H. Smart) justly says: 'Locke will be much more intelligible if, in the majority of places, we substitute "knowledge of," for what he calls "the idea of." Among the many criticisms of Locke's use of the word Idea, this is the only one which, as it appears to me, precisely hits the mark.' *Logic*, i. 154, note, bk. i. ch. vi. sec. 3.

"The word is often applied to any kind of thought, or notion, or belief; but its proper use is restricted to such thoughts as are *images* of visible objects, whether actually seen and remembered, or compounded by the faculty of imagination." Taylor's *Elements of Thought*.

Berkeley first uses it in Locke's sense, as equivalent to *phenomenon*; but later he distinguishes between *idea* and *notion*, saying that "the term *idea* would be improper by being extended to signify everything we know or have any notion of." *Principles of Human Knowledge*, sec. 89. We have a *notion*, not an *idea*, of spirits and of relations.

Hume limits the use of the term still further, distinguishing between *impressions* and *ideas*. "The difference betwixt these consists in the degrees of force and liveliness with which they strike upon the mind, and make their way into our thought or consciousness. These perceptions which enter with most force and violence, we name *impressions*; and under this name I comprehend all our sensations, passions, and emotions, as they make their first appearance in the soul. By *ideas* I mean the first images of these in thinking and reasoning." *Treatise on Human Nature*, bk. i. pt. i. sec. 1. *Enquiries*, Selby-Bigge, p. 17.

Spinoza defined *idea* "a concept of the mind." *Ethics*, pt. ii. def. 3.

Reid protested against the use of the term *idea* to designate a representation of the object known, as favouring a false view of external perception, holding that "the English words thought, notion, apprehension, answer the purpose as well as the Greek word Idea, with this advantage that they are less ambiguous." *Intell. Powers*, Essay i. c. i.

Apart from the theory of external perception, the psychological problem remains. If our conception of the object is to

be criticised and verified, how is this to be done? If idea is identified with a particular state of Consciousness, changing sensations and thought processes must be considered. "No state once gone can recur and be identical with what it was before." James, *Prin. of Psychol.*, i. 230. "What is got twice is the same object. We hear the same *note* over and over again; we see the same *quality* of green, or smell the same objective perfume, or experience the same *species* of pain." *Ib.*, i. 231.

II. *Special Usage*.—According to Plato, things are only shadows of realities beyond; ideas are the archetypes of the manifold of sense. Ideas are the *essences* of things; and till we penetrate beyond the manifold to unity, beyond the many beautiful things, which we see, to the idea of Beauty (*αὐτὸ τὸ καλόν*) which, hidden from the eye of sense, reveals itself to the eye of the soul, we have no true knowledge. "In the course of the discussion, we have referred to a multitude of things that are beautiful, and good, and so on; and also to an essential beauty, and an essential good, and so on (or, beauty in itself, or good in itself), reducing all those things before regarded as manifold to a single form or entity in each case. The manifold are seen, not known; the ideas are known, not seen." Plato's *Republic*, bk. vi. p. 507, Jowett's transl.; Davies and Vaughan's transl., p. 228.

Kant applies the term Idea to the "pure conceptions of the Reason." The "transcendental ideas" are three in number, God, Soul, Universe. These are "conceptions formed from notions."

The Metaphysical problem as stated by Kant is this,—On what warrant can we refer to the field of objective existence that which we call ideas in us?

Pure conceptions of the understanding, that is, the categories, "do not present objects to the mind, except under sensuous conditions. . . they may, however, when applied to phenomena be presented *in concreto*. . . But *ideas* are still further removed from objective reality than *categories*; for no phenomenon can ever present them to the human mind *in concreto*. They contain a certain perfection, attainable by no possible empirical cognition; and they give to reason a systematic unity, to which the unity of experience attempts to approximate, but can never

completely attain." "Of the Idea in General," *Pure Reason, Transc. Dial.*, ii. 3. i. ; Meiklejohn's Tr., p. 350. "A conception formed from notions, which transcends the possibility of experience, is an idea, or conception of reason," *ib.*, 225. "I understand by idea a necessary conception of reason, to which no corresponding objects can be discovered in the world of sense. Accordingly, the pure conceptions of reason are transcendental ideas. They are conceptions of pure reason, for they regard all empirical cognition as determined by means of an absolute totality of conditions. They are not mere fictions, but natural and necessary products of reason, and have hence a necessary relation to the whole sphere of the exercise of the understanding." *Ib.*, 228. "Although experience presents the occasion and the starting-point, it is the transcendental idea of reason which guides it in its pilgrimage, and is the goal of all its struggles." *Ib.*, p. 364.

Practical reason, dealing with duty, is otherwise placed, inasmuch as it does not depend on phenomena. "Virtue and wisdom in their perfect purity, are ideas." "Here the idea provides a rule." *Ib.*, 351. "Hence we cannot say of wisdom, in a disparaging way, *it is only an idea*. For, for the very reason that it is the idea of the necessary unity of all possible aims, it must be, for all practical exertions and endeavours, the primitive condition and rule." *Ib.*, 229.

"For logical purposes, ideas are symbols, and they are nothing but symbols." "We perceive *that* a thing is, and *what* it is. But in anything that is a symbol, we have also a third side, its signification, or that which it means." "Idea is a product of abstraction." Bradley, *Logic*, p. 9.

Hegel employs the term Idea as the designation of the Absolute. "The Idea is truth in itself, and for itself; the absolute unity of the notion and objectivity. . . . In the Idea we have nothing to do with the individual, nor with figurative conceptions, nor with external things. And yet, again, everything actual, in so far as it is true, is the Idea, and has its truth by and in virtue of the Idea alone. Every individual being is some one aspect of the Idea. . . . The Idea itself is not to be taken as an idea of something or other,

any more than the notion is to be taken as merely a specific notion. The Absolute is the universal and one Idea, which, as discerning, or in the act of judgment, specialises itself to the system of specific ideas; which, after all, are constrained by their nature to come back to the one Idea where their truth lies." *Logic of Hegel*, Wallace's Tr., pp. 304-5. "The Idea may be described in many ways. It may be called reason (and this is the proper philosophical signification of reason); a subject-object; the unity of the ideal and the real, of the finite and the infinite, of soul and body; the possibility which has its actuality in its own self; that by which the nature can be thought only as extant. All these descriptions apply, because the idea contains all the relations of understanding, but contains them in their infinite return and identity in themselves." *Ib.*, p. 306. "The Idea as a process runs through three stages in its development. The first form of the idea is life; that is, the idea in the form of immediacy. The second form is that of mediation or differentiation; and this is the idea in the form of knowledge, which appears under the double aspect of the Theoretical and Practical idea. The process of knowledge eventuates in the restoration of the unity enriched by difference. This gives the third form of the idea, the Absolute Idea; which last stage of the logical idea evinces itself to be at the same time really first, and to have a being due to itself alone." *Ib.*, p. 309.

IDEAL.—That which the mind contemplates as a representation of the normal excellence of any being, or form of action. In intelligent life, what *ought* to be, in contrast with what is, or is done. In art, the conception present to the imagination, which the artist seeks to depict. In conventional usage, the representation in a single individual of the excellences of an order.

An Ideal is a representation which stands before the mind as a test of all that is presented to observation.

"We were inquiring into the nature of absolute justice, and into the character of the perfectly just, and into injustice and the perfectly unjust, that we might have an ideal." Plato, *Republic*, v. 472, Jowett's transl.

“As the idea provides a rule, so the ideal serves as an archetype for the perfect and complete determination of the copy.” Kant, *Pure Reason*, Meiklejohn’s transl., 351. “Even the Holy One of the Gospels must first be compared with our ideal of moral perfection before we can recognise him as such.” Kant, *Groundwork*, Abbott’s transl., p. 25.

“Nature or experience gives me the occasion for conceiving the *ideal*, but the *ideal* is something entirely different from experience or nature ; so that, if we apply it to natural, or even to artificial figures, they cannot fill up the condition of the *ideal* conception, and we are obliged to *imagine* them exact. The word *ideal* corresponds to an absolute and independent idea, and not to a collective one.” Cousin, *The True, Beautiful, and Good*.

IDEAL LEGALITY.—Kant’s phrase to designate the form of moral law as simple or direct command,—“Thou shalt.” Its formula is,—Act from a maxim at all times fit for law universal. *Groundwork of Metaphysic of Ethics*.

IDEALISM.—A theory of “external existence” of the Universe as a whole. The former makes our knowledge of the external indirect by restricting knowledge to ideas. *Realism* is the term for all theories of external perception which maintain immediate knowledge of the external. Idealism treats the so-called “external” as the objectifying of subjective conditions. In its more extended application, Idealism is a unifying of reality ; a representation of the totality of being as explained under a single conception, or according to an ideal scheme.

Idealism wears a variety of aspects.

1. *Subjective Idealism.*—This regards the subjective phenomena as the only phenomena of which we can be assured. It holds that the existence of an outer world cannot be demonstrated, the hypothesis of such a world depending on interpretation of mental phenomena. All things known to us are the phenomena included in the succession of our own conscious states. The *esse* of what we name external, material, or non-thinking things, is *percepti*. This has also been named Psychological or Phenomenal Idealism ; and by Kant “Material Idealism,” declaring the existence of objects without us to be

“either (1) doubtful and indemonstrable, or (2) false and impossible.” “The first is the problematic idealism of Descartes; the second is the dogmatic idealism of Berkeley.” Kant, *Pure Reason*, Meiklejohn’s Tr., p. 166; supplement xxi. in Rosenkranz’s edition of Works; Berkeley, *Principles of Human Knowledge*; Fraser’s *Selections from Berkeley*; Fichte, *Wissenschaftslehre*; Ueberweg’s *History*, ii. 88; Schwegler’s *History*, p. 176.

2. *Critical Idealism* maintains that the objects known are the facts of sensuous experience according to their synthesis as determined by the categories of the understanding; therefore “things in themselves” cannot be known. This is the position of Kant’s Critical Philosophy, in contrast with “material idealism.” According to this view, the external may exist apart from consciousness, but it cannot be known as thus existing. Kant has therefore been classified as an Idealist, and the allegation has occasioned considerable controversy. That Kant objects to a subjective or “psychological idealism” appears from the reference above; that he holds to the existence of an outer world is obvious from what he says of sensuous experience, and the dependence of all knowledge upon such experience; but, the positions that the “thing-in-itself” cannot be known, and that mind must in a sense be said to originate Nature, favour the allegation that his theory is a Transcendental Idealism. The second edition of the *Critique* was modified in many passages so as to obviate the suggestion that his philosophy was analogous with that of Berkeley. In the preface to the second edition he says:—“The only addition . . . consists of a new refutation of psychological *Idealism*. . . . However harmless Idealism may be considered—although in reality it is not so—in regard to the essential ends of metaphysics, it must still remain a scandal to philosophy and to the general human reason, to be obliged to assume as an article of mere belief, the existence of things external to ourselves.” *Critique*, Meiklejohn’s Tr., xl. For the leading points in the discussion affecting our interpretation of the Kantian theory of knowledge of the external, see Ueberweg, *History*, ii. 169, and addenda, p. 526; Hutchison Stirling’s *Text-Book to Kant*, commentary, pp. 446–452.

3. *Absolute Idealism*.—According to Hegel, the Absolute, or the Idea, as pure thought manifests itself first in Nature, next in Spirit, and through this returns upon Itself. The unity of being is thus essential to the system. The representation of outer and inner in consciousness as if they were distinct is only an abstract, or one-sided representation. The relation of the two is the real, for there is no reality save in the movement of Being in accordance with the logical order of the categories. This is the Absolute Idealism of Hegel.

“The Idea is the Truth : for Truth is the correspondence of objectivity with the notion. By that correspondence, however, is not meant the correspondence of external things with my conceptions, for these are only correct conceptions held by me, the individual person. In the Idea we have nothing to do with the individual, nor with figurative conceptions, nor with external things. And yet, again, everything actual, in so far as it is true, is the Idea, and has its truth by and in virtue of the Idea alone. Every individual being is some one aspect of the Idea. . . . The Absolute is the universal and one Idea which, as discerning, or in the act of judgment, specialises itself to the system of specific ideas, which, after all, are constrained by their nature to come back to the one Idea where their truth lies.” *Logic of Hegel*, Wallace, p. 304.

“The Idealism of Philosophy consists in nothing else than in recognising the individual as not a true being.” Hegel, *Werke*, iii. 171 ; *Wissenschaft der Logik*, bk. i. c. 2 ; Anmerk. 2 ; Hutchison Stirling, *Secret of Hegel*, i. 423.

Faults of Idealism,—Seth, *Scottish Philos.*, 192 ; Seth, *Hegelianism and Personality*. “Who but an Hegelian philosopher ever pretended that reason in action was *per se* a sufficient explanation of the political changes in Europe.” James, *Principles of Psychology*, i. 553.

IDEATION.—The term employed generally by the Experimental school, and especially by Evolutionists, to describe exercise of intelligence. It is also used to indicate the product, as if *ideation* were a natural evolution from *sensation*.

“The word Idea denotes an individual idea ; and we have not a name for that complex notion which embraces, as one whole,

all the different phenomena to which the term *Idea* relates. As we say *sensation*, we might also say *ideation*; it would be a very useful word; and there is no objection to it, except the pedantic habit of decrying a new term. *Sensation* would, in that case, be the general name for one part of our constitution; *ideation* for another." Jas. Mill, *Anal. of Phen. of Human Mind*, ch. ii., 1st ed., vol. i. p. 40.

"Carpenter, *Prin. of Hum. Phys.*, applies the adjective *ideational* to a state of consciousness excited by a sensation. Impressions through the special senses, whether sights, sounds, tastes, smells, or feelings, become *idealised* and *registered*; that is *perceived*, *remembered*, and *associated*; where, too, the *ideation* of outward *individualities* is effected. . . . *Ideation* is the first step in the intellectual progress of man. *Ideas* are the *pabula* of thought, and form equally a constituent element in the *composite nature* of our animal propensities, and of our emotional and moral feelings. *Ideation* is as essential to the very existence of memory, as memory is to the operation of thought. For what, in reality, is memory but the fact of *retained idealised impressions* in the mind? And without these retained idealisations, embodied in the memory as *representative ideas*, where are the materials of thought? and how are the processes of thought to be effected?" *Jour. of Psych. Med.*, Jan. 1857, pp. 139, 144.

The requirements of Epistemology include an adequate synthesis of all that is "idealised, registered, perceived." This includes two questions,—Is there a physical basis of ideation, as of sensation? What is the intellectual process? Or by what means is the synthesis of experience accomplished? If we take the representation of a class, such as horse, what is "that spiritual activity which actually *puts together* in consciousness the sensations." Ladd, *Phys. Psychol.*, p. ii. c. 10, § 23. In addition to this, "how are we to explain our conception of abstraction, or of any purely intellectual exercise, quite in advance of sensation? Is there any difference in these cases in our conclusions in relation to the statement that "brain-processes occasion knowledge"? James, *Prin. of Psychol.*, i. 689. "The assumption that ideational and sensorial centres

are locally distinct appears to be supported by no facts drawn from the observation of human beings." *Ib.*, ii. 73. Is there a physical basis for Ideation? Granting that "there are mechanical conditions on which thought depends, and which, to say the least, determine the order in which is presented the content or material for her comparisons," *ib.*, i. 553, how are the comparisons to be explained as processes of thought? "Properly speaking, there is before the mind at no time a plurality of ideas, properly so called." *Ib.*, i. 405. "Each feels the total object in a unitary, undivided way. This is what I mean by denying that in the thought any parts can be found corresponding to the object's parts." *Ib.*, i. 279.

IDEATUM.—Spinoza's term for the existing object, or thing perceived, of which the Idea is the representation; the correlate. "Idea vera est diversum quid a suo ideato," *De Intellectus Emendatione*, p. 11. Cf. *Ethics*, pt. ii., props. 40–43. Prop. 43 runs thus:—"He who has a true idea is aware at the same time that he has a true idea, and cannot doubt of the truth of the thing perceived." Prop. 43, schol., "to have a true idea signifies nothing less than to know a thing intimately, perfectly." There is ambiguity in his use of "true idea," for in a sense every idea is a true idea as a reality in consciousness; in another sense "All ideas are true in so far as they are in God." Prop. ii. 32, "for all ideas that are in God accord entirely with their ideates." Demonstr. According to prop. vii., "The order and connection of ideas is the same as the order and connection of things." But how this is made good is not quite apparent by reference to the relation between the idea and the Ideatum. "Spinoza does not say, be it observed, that every apparent certainty is true knowledge, but that there is no true knowledge without certainty, and the certainty is given in the knowledge itself." Pollock's *Spinoza*, p. 129. "At the same time, there is no reason to doubt that Spinoza did underrate (as almost all constructive philosophers have underrated) the difficulty of ascertaining what the ultimate data of sense and thought really are." *Ib.*, p. 130. "It does not seem to strike him that, in the absence of causation, it is incumbent on him to explain how we can be sure of agreement between idea and

ideatum, belonging as they do to spheres incapable of communication." Martineau, *Types of Ethical Theory*, i. 303.

IDENTICAL PROPOSITION.—A proposition in which the attribute is contained in the subject, so that the subject cannot be conceived as not containing the attribute, as when we say "a body is solid."

"It is Locke, I believe, who introduced, or at least gave currency to the expression *identical proposition*, in philosophic language." Cousin, *Hist. of Mod. Phil.*, lect. xxiv. It is, according to Locke, one of the class of "trifling propositions" which "bring no increase to our knowledge." *Essay*, bk. iv. ch. viii. sec. 2. Cf. the distinction between *Analytic* and *Synthetic* Judgments, as defined by Kant. *Pure Reason*, introd., sec. 4. "Analytic judgments are those in which the connection of the predicate with the subject is cogitated through identity; those in which this connection is cogitated without identity are called synthetic judgments."

We must, however, distinguish between *analytic* and *tautologous* judgments. Whilst the *analytic* display the meaning of the subject, and put the same matter in a new form, the *tautologous* only repeat the subject, and give us the same matter, in the same form, as, "Whatever is, is." Thomson, *Laws of Thought*, p. 187, 3rd ed.

IDENTITY (Philosophy of), (*idem*, the same).—See ABSOLUTE IDEALISM.

Schelling applied this term to his own philosophy. "By reason," he says, "I mean absolute reason, or reason so far as it is thought as total indifference of subjective and objective." All the differences of spiritual and material existence, even the difference between spirit and matter themselves, are but "potencies" of that which is in itself *indifferent* or *identical*.

IDENTITY (Law of).—It is usually expressed thus—a thing is what it is; A is A, or $A = A$. Like the principle of contradiction, of which it is the positive expression, it is a necessary law of self-consistent thought.

IDENTITY (Personal).—The continuity of personal experience in the exercise of intelligent causal energy, the results being associated in memory.

“Consciousness is inseparable from thinking; and since it is so, and is *that* which makes everyone to be what he calls *self*, and thereby distinguishes himself from all other thinking beings, in *this alone consists personal identity, i.e.*, the sameness of a rational being. And as far as this consciousness can be extended backwards to any past action or thought, so far reaches the *identity* of that person.” Locke, *Essay*, bk. ii. ch. xxvii.

Hume would account for the idea of Identity by the easiness of the transition of the mind from one idea to another in the series. “The smooth and uninterrupted progress of the thought readily deceives the mind, and makes us ascribe our identity to the changeable succession of connected qualities.” *Treatise of Human Nature*, pt. iv. sec. iii.

Leibnitz (*Theodicée*) called it a metaphysical communication by which soul and body make up one *suppositum*, which we call a person.

“Though consciousness of what is past does *ascertain* our personal identity to ourselves, yet to say that it makes personal identity, or is necessary to our being the same persons, is to say that a person has not existed a single moment, nor done one action but what he can remember.” Butler, *Dissertation*, i.

As recognition of personal identity is matter of consciousness connected with recollection and use of acquisitions, the knowledge of identity belongs to the conscious life. Only as collateral to this does it apply to the bodily life, known as our own life. As this is independent of consciousness and will, it is not included in our knowledge of personal identity, not being an essential part in personality. But our knowledge of bodily sensibility and power, being matter of consciousness, our knowledge of personal identity carries with it a knowledge of the identity of bodily life. But these are two lives. The loss of a limb is not a breach of personal identity. In its strict sense, personal identity is the unity and continuity of intelligent existence, as represented in each state of consciousness.

The relation of somatic and psychic life is, however, so close, that disturbance of the normal conditions of body, and specially of the nerve-system, readily occasions disturbed consciousness.

According to the persistence of an unnatural experience, occasioned by a disturbed physical condition, there may arise faulty interpretation, on account of ignorance of causes. Abnormal experiences, however, cannot be regarded as "mutations of the Self," but only as faulty attempts at the interpretation of the abnormal, rendered more likely of acceptance in consciousness, by reason of failures in memory, and distraction under suffering. James includes under "Mutations of the Self," "Alterations of memory; and alterations in the present bodily and spiritual selves." But in this case, Self is used in a wider sense, as if changes of experience were changes of the self. Thus, when it is said "Alterations of memory are either losses or false recollections;" and "in either case the *me* is changed," no more is implied than a changed experience. No one forgetting the address of a friend considers on this account that "the *me* is changed." It was the same *me* who knew the address, and is now conscious of having forgotten it. "These losses of memory are a normal incident of extreme old age, and the person's *me* shrinks, in the ratio of the facts that have disappeared." James, *Prins. of Psychology*, i. 373. This means only restriction of brain action,—and consequent restriction of experience, just as when one is blinded by accident. To speak of "mutation of the self" on these grounds, would imply change in the *me*, with every acquisition, as with every loss, of knowledge, as if the *me* were not the cause operating.

Insane delusions illustrate aggravated disturbance, influencing more or less seriously both feeling and imagination, leading the distracted person to speak as if he were a different person at one moment from what he is at another. The facts of Hypnotism show how readily this can be induced under brain excitation in abnormal conditions. When a person has been thrown into the Hypnotic state, suggestion suffices to lead a man to imagine himself young or old, a soldier or a civilian, a prince or a mechanic. Under insane delusions, the suggestion comes from neural excitement, interpreted by the sufferer as if experience were normal.

IDIOSYNCRASY (*ἴδιος*, one's own; *σύν*, with; and *κρᾶσις*, a mixture). The combination of powers and capacities

constituting the individual; individuality; commonly, distinctiveness of temperament. Distinctive characteristics marking the individual life.

IDOL (εἶδωλον, an image, or phantom, from εἶδος, figure).—Something set up as a representation of the real. Bacon calls those false notions, and prejudices, by which men are led into error, *idols*. According to Bacon, these idols are four in number:—"The first sort I call *idols* of the nation or tribe; the second, *idols* of the den or cave; the third, *idols* of the forum; and the fourth, *idols* of the theatre." *Novum Organum*, bk. i. aph. 38.

These are current fallacies,—mistaken interpretations, consequent on judging of things by reference to their usefulness to us; or to their adaptation to individual preferences, or to the suggestions of others, or to prevalent traditions.

"The wise Bacon gave a new direction to physical studies, or rather, as others were already on the right track, imported fresh vigour to the pursuit of this new direction." Kant, pref. to second ed. of *Pure Reason*, 1787, Meiklejohn's Tr., xxvi.

IGNORANCE, *ignorantia*, absence of knowledge.—The acknowledgment of ignorance, implies some knowledge as its condition. (1) In an intellectual reference, the recognised consequence of the limits of our intellect,—*Agnosticism*. (2) Ethical,—such want of knowledge of facts, as modifies responsibility. Aristotle, *N. Ethic.*, lib. iii. cap. i., distinguishes between an action done *through ignorance* (διὰ ἀγνοίαν), and an action done *ignorantly* (ἀγνόων). In the former case the agent acts in ignorance of the facts; in the latter, the agent acts not knowing what he is doing. (3) *Juridical*, regarded in two aspects, *ignorantia juris* and *ignorantia facti*. *Ignorantia facti excusat*. This is ignorance of what is legally involved, as when a contract is signed under a wrong impression as to the meaning of the terms. *Ignorantia juris quod quisque tenetur scire neminem excusat*. Every man is supposed to know the laws of the land in which he lives, and is not excused if he transgress any of them.

ILLATION (*illatum*, from *infero*, to bring in).—Logical inference.

ILLICIT.—In Logic, a term is said to be used *illicitly* when it is distributed in the conclusion, although undistributed in the premises.

ILLUMINATION.—The peculiar intellectual development of the 18th century in France and Germany is variously designated as the *Illumination*, *Enlightenment*, or *Aufklärung*.

In *France*, the movement took the form of extreme materialism, the issue of the sensationalism of Condillac. Its spokesmen were Voltaire, the Encyclopædists, and especially La Mettrie and Von Holbach in the *Système de la Nature*. The attitude towards religion was not merely negative, it was a period of sheer atheism. Ueberweg's *Hist of Philos.*, ii. p. 122; Schwegler's *Hist. of Philos.*, xxxii. p. 187; Flint, *Historical Philos. in France*, p. 289.

In *Germany* this same century was the period of negative Rationalism, the outcome of the extreme subjectivity of the time. All dogma, especially religion, was subjected to the judgment of the individual, and simply rejected if it did not stand the test.—[J. S.]

ILLUSION.—A deceptive appearance, as of the representation of an object, occasioned by organic or functional disorder. Sully's *Illusions*; James, *Principles of Psychol.*, ii. p. 86; his *Text-Book*, 317.—*Vide* HALLUCINATION.

IMAGINATION (*imaginor*, to picture to oneself).—The faculty of representation by which the mind keeps before it an image of visible forms. This power is (1) simply reproductive; (2) creative. “Nihil aliud est *imaginari* quam rei corporeæ figuram seu imaginem contemplari,” Descartes, *Medit. Secunda*. Experience depends largely on imagination, still more on rational power.

Imagination is associated with Memory. While a past knowledge is being recalled, objects in themselves and their relations are figured to the mind. In advance of this, new combinations are presented as visions of the mind. In a higher form of original activity, imagination contributes to the elevation of intellectual life in the exercise of literary and poetic gift.

“*Memory* retains and recalls the past in the form which it

assumed when it was previously before the mind. *Imagination* brings up the past in new shapes and combinations." M'Cosh, *Typical Forms*.

"In so far as imagination is spontaneity, I sometimes call it also the *productive* imagination, and distinguish it from the *reproductive*, the synthesis of which is subject entirely to empirical laws, those of association namely." Kant, *Pure Reason*, Meiklejohn's Tr., 93.

Imagination is thus a power connected with sensuous impression, reproduction of knowledge or memory, and conception, for this last also depends upon imagination. "In truth, it is not images of objects, but schemata, which lie at the foundation of our pure sensuous conceptions. No image could ever be adequate to our conception of a triangle in general. . . . The *image* is a product of the empirical faculty of the productive imagination,—the *schema* of sensuous conceptions (of figures in space, for example) is a product, and, as it were, a monogram of the pure imagination *à priori*, whereby and according to which images must first become possible." *Ib.*, pp. 109, 110. "The necessity of imagination towards the possibility of what synthetic processes are involved, is obvious; for through that faculty only can the past be reproduced for summation with the present." Hutchison Stirling, *Text-Book to Kant*, Reproduction, p. 97. "Imagination holds at once of sense and of intellect; it is sensuous in that it exhibits, and it is intellectual in that it is self-determinant and can exhibit an object, even when no object is presented to it." *Ib.*, commentary, p. 416.

"I look upon imagination as the active portion of the intelligence, that in which the life of the intelligent consists, and from which, as the intelligence advances, new deposits are ever made of actual knowledge, which thenceforward loses a portion of its interest, and becomes for some purposes dead." J. Grote, *Moral Ideals*; 43.

Spinoza distinguishes *imagination*, as passive; understanding, as active; and traces all error to the neglect of this distinction. Cf. Pollock, *Spinoza*, p. 144.

According to Wordsworth, "*Imagination*, in the sense of the poet, has no reference to images that are merely a faithful copy,

existing in the mind, of absent external objects ; but is a word of higher import, denoting operations of the mind upon these objects, and processes of creation or composition governed by fixed laws." Preface to his *Works*, 1836.

To *imagine* in this sense, is to realise the ideal, to make intelligible truths descend into the forms of sensible nature, to represent the invisible by the visible, the infinite by the finite.

Hunt, *Imagin. and Fancy* ; Wordsworth, pref. to *Lyrical Ballads* ; Hamilton, *Metaph.*, lect. xxxiii. ; Tyndall, *Scientific Uses of the Imagination*.

IMMANENT (*immaneo*, to remain in ; *in* and *maneo*).—Indwelling, in contrast with transcending, transitive. Applied to such mental operations as are restricted to consciousness, but specially to the First Cause, as connected with the universe, not by external relations, but as an indwelling power.

The doctrine of Spinoza, *Ethic.*, pars i. prop. 18, is, *Deus est omnium rerum causa immanens, non vero transiens*. All that exists, exists in God. There is no difference in substance between the universe and God ; therefore God is truly immanent.

Kant's use of the word is applicable to the functions of intelligence. "We shall term those principles, the application of which is confined entirely within the limits of possible experience, *immanent* ; those, on the other hand, which transgress these limits, we shall call *transcendent* principles." *Pure Reason*, Meiklejohn's Tr., p. 210. By transgression here, he does not point to "misuse of the categories," or errors of judgment. He refers to "real principles which exhort us to break down all barriers, and to lay claim to a perfectly new field of cognition, which recognises no line of demarcation."

"Immanence" with Kant describes principles restricted by their nature to the constitution of experience.

IMMATERIALISM.—The doctrine of Berkeley, that there is no material substance. "Berkeley's philosophy, in its most comprehensive aspect, is a philosophy of the causation that is in the universe, rather than a philosophy of the mere material world." Fraser, *Life of Berkeley*, p. 365. See also Fraser's *Berkeley in Philosophical Classics*, where he distinguishes

between Berkeley's "Visual Immaterialism," in the *Essay towards a New Theory of Vision* and the *Dialogue on Divine Visual Language*, and his "Universal Immaterialism," in the *Principles of Human Knowledge*.

IMMEDIATE (*in*, not ; *medius*, middle ; German, *Unmittelbar*).—Direct relation, analogous to contact ; generally applied to Knowledge. "Immediate Knowledge" is knowledge of the thing itself, in contrast with knowledge of one thing by the intervention of another.

Consciousness is a perfect example of Immediate Knowledge, constituting experience. The intervention of the sensory, as the condition of knowledge of the external, interposes a difficulty for philosophy, giving rise to the complicated discussions as to External Perception. What is meant by immediate knowledge of the external may be explained thus: The sensory does not give us our knowledge, but only by excitation carries an impression to consciousness ; it does not convey an image of the thing to the mind, from the presence of which we gather our knowledge of the object. Even the organ of vision, with its picture on the retina, does not by aid of the nerve of vision transfer a picture to the brain. The mind itself forms the knowledge, by comparing the sensations resulting from contact of organism with the external, for all sensibility results from contact. Our knowledge is concerned with the thing itself, notwithstanding that it is obtained through the intervention of the sensory system. It is knowledge by the agency of sensory, but not knowledge of the thing through an image of it, as if by a reflection on a mirror. The impressions on the sensory have no resemblance to the qualities of the object ; our knowledge is thus gathered by exercise of an intelligent nature, interpreting the experience awakened. Knowledge of impressions in consciousness is distinct from the knowledge in consciousness of the object giving occasion to these impressions. This gives the knowledge of observation, as distinct from knowledge by inference.

"The psychologist's attitude towards cognition" involves "a thoroughgoing dualism. It supposes two elements, mind knowing and thing known, and treats them as irreducible.

Neither gets out of itself or into the other, neither in any way is the other, neither *makes* the other. They just stand face to face in a common world, and the one simply knows, or is known to its counterpart." James, *Princ. of Psychol.*, i. 218.

For a criticism of the distinction between *Immediate* and *Mediate* Knowledge, see *Logic of Hegel*, by Wallace, pp. 103-121.

IMMORTALITY.—The doctrine of immortality has its philosophic basis exclusively in the distinctive characteristics of the rational nature.

Organism has no place within the circle of facts raising the problem of a life beyond the present. As concerns the life of man, philosophy contemplates two distinct lives in the one life,—an organic life subject to the common laws of organism passing from germ to maturity, from that to decay; and a life for which advance in knowledge and in virtue is the sole test of development. For such life, limits are not visible, as in the case of organism; and the philosophic problem concerning immortality is thus before us.

Neglect of this contrast, places out of range much of the reasoning of the ancient philosophy, as when the argument proceeds upon motion, and on the assumption that the soul brings life to the body. These inconsistencies appearing in the *Phædrus*, *Phædo*, *Timæus*, and *Republic* of Plato, need to be eliminated, in order to assign their true logical and ethical value to Plato's otherwise strong reasoning on the subject of immortality.

Socrates, facing the question as one whose life was threatened, and who regarded human virtue as involving a demand to surrender life itself rather than do a dishonourable deed, reasons altogether on ethical grounds for the common belief in immortality. *Apology*, 41.

"Wherever a man's post is, . . . there it is his duty to remain, and face the danger, without thinking of death, or of any other thing, except dishonour." *Ib.*, 28, Church's transl. As to departure to the other world, he says, "If death is a journey to another place, and the common belief be true, that there are all who have died, what good could be greater than this?" *Ib.*, 40.

Plato continues on this course of thought. "The whole period of three score years and ten is surely but a little thing in comparison with eternity," and "the soul of man is immortal and imperishable." *Republic*, x. 608.

The force of the common conviction in favour of immortality rests on a moral basis. The data on which the expectation of future life rests, are presented in the distinction between right and wrong; in individual duty; and in our recognition of responsibility. The logical worth of such thought is not affected by the history of organism; or by reference to the limits of knowledge, sustaining a doctrine of agnosticism; or by modern substitutes for individual immortality under a law of continuity, which finds a quasi immortality in the race. The conditions of personal life, including man's relation to moral law and government, imply a relation to the Deity, the full significance of which is not found in the present life. As clearly as the physical life is a finished life here, the moral is a life unfinished here. The discussion of Justice, which has exercised philosophic thought from its rise, points human expectation to a tribunal before which the doings of man have yet to be tested. In the implications of moral law, rather than in the distinctive nature of the soul, the evidence for future life is found. In so far as modern thought has contemplated human life as the life of organism alone, capable of being interpreted by physiological laws, there has been surrender of the hopes of immortality. What such surrender involves has been indicated by J. S. Mill in these words:—"One advantage, such as it is, the supernatural religions must always possess over the Religion of Humanity; the prospect they hold out to the individual of a life after death. For, though the scepticism of the understanding does not necessarily exclude the Theism of the imagination and feelings, and this again gives opportunity for a hope that the power which has done so much for us may be able and willing to do this also, such vague possibility must ever stop far short of a conviction. . . . Nor can I perceive that the sceptic loses by his scepticism any real and valuable consolation except one: the hope of reunion with those dear to him who have ended their earthly life before him. That loss, indeed, is

neither to be denied nor extenuated." *Essays on Religion*, pp. 118, 120.

IMPERATIVE (*imperatum*, command, from *impero*, to enjoin, to order).—The "ought," the "Thou shalt," of moral law; the demand of ethical law, regarded as a dictate of the reason, known to all, and placing all rational agents under common obligations. The distinctive characteristic of ethical law lies in this, that it is of the nature of a command, its fulfilment depending on intelligence and will.

"The representation of an objective principle, so far as it necessitates the will, is called a commandment (of reason); and a formula expressing such is called an *imperative*. An *imperative* commands *hypothetically* or *categorically*. The former expresses that an action is necessary as a mean towards somewhat further; but the latter is such an *imperative* as represents an action to be in itself necessary and without regard had to anything out of and beyond it, *i.e.*, objectively necessary. . . . When we attend to the dissimilar grades of necessitation expressed by the *imperative* they might be called (1) Rules of art, (2) Dictates of prudence, (3) Laws of morality. The first and second are hypothetical imperatives. The third involves a conception of an immediate and objective and universally valid necessity." Kant, *Groundwork of Metaphysic of Ethics*, ch. ii.

Thus in Ethical Law, we have a simple direct command;—the *right* contains the *ought*;—Justice means "thou shall be just;" all rational agents use it in this sense, making thus their demand upon others, owning also an equivalent demand upon themselves.

The authority which Butler attributes to Conscience, belongs to the law itself. Kant's Ethical philosophy, resting on the analysis of the notion "duty,"—as a notion admitted under every scheme, experiential and intuitional,—gives the most thorough elaboration of its implications. But he connects this notion with "inward hindrances." "An *Imperative* is no more than a formula, expressing the relation betwixt objective laws of volition and the subjective imperfection of particular wills (*e.g.*, the human)." Kant, *Metaphysics of Ethics*, ch. ii.; Semple, 3rd ed., p. 24; Abbot, 3rd ed., p. 31; *Werke*, viii. 38.

“The *Categorical Imperative* is single and one, ‘Act from that maxim only when thou canst will law universal.’” *Ib.*, Semple, 31; Abbot, 38; *Werke*, viii. 47.

IMPRESSION (*imprimo*, to press in, or on).—Any effect on the susceptibilities of life, consequent on contact with the external, or on agency from without, or from within.—(1) The effect on the sensory system arising from contact of an external object. (2) The effect of thought upon mental sensibility, or “sentiment.” Thus, we speak of moral *impressions*, religious *impressions*, *impressions* of sublimity and beauty.

Hume divided all modifications of mind into *impressions* and *ideas*. “All the perceptions of the human mind resolve themselves into two distinct kinds, which I shall call Impressions and Ideas. The difference betwixt these consists in the degrees of force and liveliness, with which they strike upon the mind and make their way into our thought or consciousness.” Under impressions “I comprehend all our sensations, passions, and emotions, as they make their first appearance in the soul. By Ideas I mean the faint images of these in thinking and reasoning.” “All our simple Ideas on their first appearance are derived from simple impressions, which are correspondent, and which they exactly represent.” Hume, *Treatise of Human Nature*, pt. i. bk. i. c. 1. *Enquiries*, Selby-Bigge, 12, 17, 49.

Green, *Introduction to Hume*; Huxley, *Hume*; Porter, *Criticism of Huxley's Hume*; *Science and Sentiment*, 293. “Words corresponding to *impression* were among the ancients familiarly applied to the processes of external perception, imagination, etc., in the Atomistic, the Platonic, the Aristotelian, and the Stoic philosophies; while, among modern psychologists (as Descartes and Gassendi), the term was likewise in common use.” Hamilton, *Reid's Works*, p. 294, note.

IMPULSE (*impello*, to drive on).—A vital force, urging to action. The term is applied to desire, appetite, and passion, as well as to affections dependent on intellectual action. In primordial form it is “the impulse to seek that which is agreeable and beneficial; and to avoid what is painful and harmful.” Sully, *Mind*, ii. 179. Green distinguishes *Impulse* from *Desire*;

hunger, *e.g.*, as a "force of nature," from desire of self-satisfaction. *Proleg. to Ethics*, p. 90.

Impulses of the nature are their own reason until they conflict with reason, which is the guide to higher activity.

Ethical impulse is the sense of duty, involving natural reverence for moral law, and desire to accomplish the end prescribed, in acknowledgment of personal obligation.

"Impulse" is synonymous with *motive* ; and as a term has the advantage of restricting to vital force, physical or mental. This twofold reference, however, involves a measure of ambiguity, leaving it doubtful whether the primordial principle is somatic in character, or belongs to consciousness. Sully's *Human Mind*, ii. p. 179 and p. 186. There are three phases of impulse, as it is the origin of automatic movement, of instinctive movement, or of voluntary movement.

INDEFINITE (*in*, not, and *definitum*, distinct).—The undefined; applicable to inadequate knowledge, in a case in which the object is known, without exact inclusion of its limits or bounds. The *definite* or defined, is that of which the form and limits are determined and are apprehended by us. The *indefinite*, is that of which we do not know the limits. Indefinite is a characteristic of our knowledge; Infinite is not, but is a characteristic of the Absolute Being.

INDIFFERENT, applied to vital action which is not differentiated as moral.—An action is said to be *indifferent*, that is, neither right nor wrong, when, *considered in itself* or *in specie*, it does not come under moral law. But such an action may become dutiful when regard is had to the end for which it is to be done. It is then contemplated in *individuo*, as a means to an end.

In the field of action, the word has no application to a state of mind which determines activity. "Liberty of indifference" is an inconsistent representation of freedom in willing. There can be no such experience as *indifference*. To determine, yet not determine, is a contradiction. It is to move while unmoved.

INDIVIDUALITY (from *in*, and *divido*, to divide).—(1) A distinct, circumscribed existence; such as a molecule, or atom, or living being; (2) distinctiveness of being belonging to

personality, rendering it possible to distinguish from each other the members of the race.

INDIVIDUALISM.—The theory of knowledge, or of practice, which reduces all to individual sensibility, as the sole ultimate test of the knowable, or the dutiful. It presents the doctrine of relativity in such a form as to make diversities of individual sensibility, or of impressions, equally reliable as tests of truth, and of rectitude. Individual experience becomes the sole test of truth, not the universal,—not even the *consensus gentium*. The theory necessarily involves scepticism, by assigning equal authority to contradictory affirmations. This theory is that involved in the commonly received view of the doctrine of Protagoras, *Homo mensura*,—"Man is the measure of the universe,"—*πάντων χρημάτων μέτρον ἄνθρωπος*. Plato, *Theætatus*, 152; Diog. Laert., xi. 51; and also in some types of modern sensationalism.

Individualism in Ethics, makes individual preference the rule of conduct, disregarding social organism; so representing each man as a law to himself, that Egoistic Hedonism is taken as an adequate theory of the right in conduct.

INDUCTION (*ἐπαγωγή*, *inductio*, *in duco*, to lead into).—Reasoning from particulars to generals.

The warrant for the general conclusion is not found in a perfect induction, but in an induction sufficiently wide to warrant a belief in the uniformity of the occurrence contemplated.

"*Induction* is that operation of mind by which we infer that what we know to be true in a particular case or cases, will be true in all cases which resemble the former in certain assignable respects. In other words, *induction* is the process by which we conclude that what is true of certain individuals of a class, is true of the whole class, or that what is true at certain times will be true, under similar circumstances, at all times." Mill, *Logic*, bk. iii. ch. ii. sec. 1.

Aristotle, *Metaph.*, xiii. 4, attributes the discovery of induction to Socrates, who, in his search for true ethical notions, inquired what was the common characteristics of things and actions otherwise diverse. Aristotle himself, from the limited

view he took of the nature of induction, did little to advance the science. Nor was it till the modern scientific spirit awakened in Bacon that its importance was appreciated. He boldly proclaimed the necessity of substituting for the old Aristotelian and scholastic method of deduction the new method of inductive inquiry. *Spes una est in inductione vera* (*De Augm. Scient.*, i. 18). Bacon, however, did not himself build the system of inductive logic. This task was reserved for Mill, who formulated the methods of inductive inference.

The *ground* of induction, is the principle of the Uniformity of Nature, of the constancy of the causal relation among phenomena. In the language of Newton, *Effectuum naturalium ejusdem generis eadem sunt causæ*. The same causes produce the same effects. According to some, our belief in the established order of nature is recognition of the law of causality as a first principle of knowledge. According to others, this belief is an inference derived from experience, the highest generalisation from experience. On the different views as to this point, *cf.* Mill, *Logic*, bk. iii. ch. iii., with Whewell's *Philosophy of Inductive Sciences*, bk. i. ch. vi. On the subject of *Induction* in general, see Bacon, *Novum Organum*, *De Augmentis Scientiarum*; Mill, *Logic*, bk. iii.

INDUCTIVE CANONS, are rules for legitimate inference of general laws from particular facts. Bacon, in the second book of the *Novum Organum*, approximated to a statement of these; and Herschel, in his *Discourse on the Study of Natural Philosophy*, stated them. Mill, however, was the first to formulate them clearly and accurately, and to signalise their importance for inductive investigation. He calls them (1) the method of *agreement*, (2) the method of *difference*, (3) the *joint or double method* of agreement and difference, (4) the method of *residues*, and (5) the method of *concomitant variations*. Mill, *Logic*, bk. iii.; Fowler, *Inductive Logic*, ch. iii., with notes.

IN ESSE: IN POSSE.—Equivalent to actual and possible.

INFINITE (*in, finitum*).—Unlimited, limitless. According to Spinoza's definition, God is Being absolutely infinite; substance consisting in infinite attributes of which each one expresses an eternal and infinite essence.

“The *Infinite* expresses the absence of all limitation, and is applicable to the one *infinite* Being in all His attributes. The *Absolute* expresses perfect independence both in being and in action, and is applicable to God as self-existent. The *Unconditioned* embraces both, and indicates entire freedom from every restriction, whether in its own nature, or in relation to other beings.” Calderwood, *Philosophy of the Infinite*, p. 37 ; 3rd ed., p. 179.

Knowledge of the *infinite* has been declared impossible, simply on the ground of the limitation of our faculties. But this is mere logical definition of opposites,—antithesis of naming.

Granting a First Cause, knowledge of the universe implies knowledge of the cause. The laws of knowledge imply this. Recognition of the self-existent, implies an idea, notion, or conception of God. According to some, the idea of the *Infinite* is purely negative. On the other hand, it is held that the idea of the *infinite* is the idea of an objective reality. By Descartes, *Medit.*, iii., it was regarded as a necessary condition of knowledge.

While we cannot *comprehend* the Infinite, or reach it by enlarging of the finite, we may *apprehend* it in relation with the finite. This the common sense of men rests in, without attempting the metaphysical difficulty of reconciling the existence of the *infinite* with that of the *finite*.

Descartes, *Meditations* ; Cousin, *Cours de Phil. et Hist. de la Phil.* ; Hamilton, *Discussions on Philosophy*, etc. ; Mansel's *Limits of Religious Thought* ; Calderwood's *Philosophy of the Infinite* ; Herbert Spencer's *First Principles*, chap. i. ; Lotze, *Microcosmus*, i. 381–387.

INHIBITION (*inhibeo*, to curb, or check).—Restraint of action. First, a power common to organic life, belonging to the whole motor system, providing for immediate check on movement when sensibility induces recoil, or withdrawal from the disagreeable or injurious. This is essential to healthy organic existence. In analogy with this, psychic life has also its natural restraints, operating spontaneously, as involuntary checks on activity ; and taking advantage of the inhibitory power belonging to the nerve system.

When the unity in dualism characteristic of human life is considered, a healthy ethical condition has associated with it vigorous inhibitory power in the muscular system. The laws of health for man involve the unity of the somatic and psychic. The "thou shalt not" of moral law, has associated in normal somatic life an inhibitory power which favours moral restraint. Discipline of mind and body must keep pace. Physical development has in itself value for the intellectual and moral life. The restraining power belonging to the motor nerves, to the controlling processes in the brain, and to physical instincts, is all, though quite unconsciously, in the service of rational life. The inhibitory power in the physical nature is so distributed that inhibition is "exerted by different parts of the nerve centres, when excited, on the activity of distant parts." James, *Princ. of Psychol.*, i. 67. See Sully, *Human Mind*, ii. 246; Foster and Langley's *Practical Physiology*.

INNATE (*innatus*, inborn, —*innascor*).—Native to the mind; rational principle, so given in mental constitution, that development will disclose it as essential to the rational life; *a priori*, in the logical relations of knowledge, as antecedent to experience,—even given as the condition of experience. In this we have the basis of Intuitionism.

The claim was latent in the ancient philosophy, in the "general conceptions" of Socrates, and in the "Ideas" of Plato. Cicero, in various passages of his treatise *De Natura Deorum*, speaks of the idea of God and of immortality as being *inserted*, or *inborn* in the mind. "*Intelligi necesse est, esse deos, quoniam insitas eorum, vel potius innatas cognitiones habemus*," lib. i. sec. 17. This has been the common position of the Christian Fathers, "That men would not be guilty, if they did not carry in their mind common notions of morality *innate* and written in divine letters." Origen, *Adv. Celsum*, lib. i. cap. iv.

Descartes, in making a beginning for modern philosophy, by using doubt as an instrument for test of thought, developed a doctrine of "innate ideas." The "idea of God" was for him the first certainty, after "*cogito, ergo sum*,"—the certainty of self-consciousness. In this idea, he found the assurance of the

existence of the Deity, inasmuch as the thinker could not himself be the source of this idea, and the sensory could not give it. The idea of God thus stands with him as the symbol of "innate ideas."

Ideas were distinguished by Descartes into *adventitious*, or such as we receive from the objects of external nature; *factitious*, or such as we frame out of ideas already acquired; and *innate*, or such as are inborn and belong to the mind from its birth, the idea of God being symbolic. *Meditation*, iii. Veitch's transl. 6th ed., p. 118.

The expression "innate *ideus*" is unsuitable, since "idea" is used for image or representation, a meaning which cannot be associated with any knowledge which can be warrantably classified as native to the mind. "By *innate idea*, Descartes meant merely a mental modification which, existing in the mind antecedently to all experience, possesses, however, only a *potential* existence, until, on occasion of experience, it is called forth into *actual* consciousness." Veitch, *Works of Descartes*, note vi.

Locke's polemic against "innate ideas," rests on the contention that there are no principles "universally agreed upon by all mankind." *Essay*, bk. i. c. 2. He maintains that truths alleged to be innate are not so, because "they are not assented to by those who understand not the terms;" and because, they are not "the first that appear" in the mind. His position is that "the Senses at first let in particular ideas, and furnish the yet empty cabinet." "Let us then suppose the mind to be, as we say, white paper, void of all characters, without any ideas, how comes it to be furnished?" bk. ii. c. 1. His reply is "from experience." . . . "Our observation employed either about external sensible objects, or about the internal operations of our own minds, perceived and reflected on by ourselves, is that which supplies our understanding with all the materials of thinking," *ib.* The one phase of experience he calls sensation, the other reflection.

The recoil against a pure Sensationalism came from the Scepticism of Hume, showing that mind and matter are equally subjects of doubt, if all is included in the series of sensations.

Verification is impossible, if it be impossible to transcend the series.

The defence of necessary truth, for guidance of intelligence, was led by Reid and by Kant, the one the leader of the Scottish School, the other of the German. Reid's defence of necessary truth was that there is truth incapable of proof, and independent of experience, axiomatic in nature.

Kant changed the whole aspect of Epistemology by insisting that the question could be settled only by investigating the conditions of knowledge itself. The central point here is the action of the understanding. We seek a philosophy of Thought. Sensation is not knowledge. If it supply materials for knowledge, knowledge can be had only on conditions which experience cannot supply. The understanding cannot act except by use of its own categories. These general notions are necessary in order that the understanding may deal with differences in extension and in succession. Thus *a priori* conditions are essential for a beginning in experience. The whole question of "innate ideas" is permanently widened and deepened. The polemic of Locke has become historic merely. Modern philosophy has no place for a representation of mind as an unfurnished cabinet, or a surface of white paper. "Innate" now includes all that is essential to the constitution of mind.

From the days of Kant, "innate" concerns the conditions of activity belonging to the intellectual life itself. These conditions include "forms" of the understanding; use of categories, such as quantity and quality; use of necessary principles,—first of pure intelligence, such as the law of causality; second, of practice, such as the law of justice. The intricacy of Thought, as appears from these conditions, is such that sensation and reflection are only single elements. Epistemology requires a philosophy of their relations, and of much which completely transcends experience. The inlet of simple ideas to furnish an empty cabinet, is left behind as an antiquated curiosity.

The modern question is the *synthesis* of knowledge,—the conditions in accordance with which our knowledge is constructed. There is no knowledge without experience, and

there can be none if we depend on experience alone. Neither sensation, nor consciousness of the impressions thereby awakened, can give us a philosophy of knowledge. A rational life has the principles of rational procedure given in its own movements. The sensory is not an avenue for inlet of ideas, but an instrument for use of intelligence under given conditions, provided in the rational life.

Hegel has lifted a protest against drawing a hard and fast line between experience and its conditions native to mind. "One thing may be observed with reference to the immediate knowledge of God, of abstract right, and of social morality (including under the head of immediate knowledge, what is otherwise termed Instinct, Implanted or Innate Ideas, Common Sense, Natural Reason, or whatever form, in short, we give to the original spontaneity), that it is a matter of common experience that education or development is required to bring out into consciousness what is therein contained. . . . The adherents no less than the assailants of the doctrine of Innate Ideas have been guilty throughout of the like exclusiveness and narrowness as is here noted. They have drawn a hard and fast line between the essentially immediate or spontaneous union (as it may be described) of certain universal ideas within the soul, and another union which has to be brought about in an external fashion, and through the channel of objects and conceptions given to us. There is one objection borrowed from experience which is raised against the doctrine of Innate Ideas. All men, it is said, must have these ideas—such, for example, as the maxim of contradiction—present to the mind ; they must know them ; for this maxim, and others like it, were included in the class of Innate Ideas. The objection may be set down to misconception ; for the ideas or characteristics in question, though innate, need not on that account have the form of ideas or conceptions of something known. Still the objection completely meets and overthrows the crude theory of immediate knowledge, which expressly asserts its formulæ in so far as they are in consciousness." *Werke*, vi. § 67, p. 135. *Encyclopædie*, Wallace's transl. ; *The Logic of Hegel*, p. 111.

M'Cosh, *Method of Divine Govt.*, p. 508, 7th ed. ; Sully's

Outlines of Psychology, p. 60 ; Lotze, *Microcosmus* (Hamilton's transl.), i. 236 ; Lotze, *Logic*, § 324, transl. Bosanquet, p. 454.

INSTINCT (*instinguo*, to incite, to impel).—Immediate stimulus to action, apart from prior experience and intelligence. The term includes every impulse, organic and psychic, fulfilling its function directly of itself. It is named “blind impulse,” because it does not wait upon intelligence for its rise, nor does it find aid from intelligence in reaching its end. “Every instinct is an impulse.” James, *Principles of Psychology*, ii. 383. This appears in “purposive action without consciousness of the purpose.” Von Hartmann, *Hist. of the Unconscious*, Tr. i. 79. Even within consciousness, where its presence is known, its purpose is not intelligently contemplated and guided. “Instinct is usually defined as the faculty of acting in such a way as to produce certain ends, without foresight of the ends, and without previous education in the performance.” James, *Princ. of Psychol.*, ii. 383 ; Sully, *Human Mind*, i. 136 ; Martineau, *Types of Ethical Theory*, 2nd ed., i. 137. Comparison of Instinct in Animal and in Man, Darwin, *Descent of Man*, 12mo, p. 67 ; A. Russel Wallace, *Darwinism*, 441.

For *classification of instincts*, attention must be directed on the functions of different phases of life. The term may be applied even to plants in their search for nourishment, and their turning towards the light. Most obviously and extensively it applies to animal life ; in a more restricted degree, but quite markedly, to the action of feeling in mind, in so far as this is independent of the exercise of our intelligence. When comparison is made between these, the force of Darwin's observation is apparent : “The fewness and the comparative simplicity of the instincts in the higher animals are remarkable in contrast with those of the lower animals.” *Descent of Man*, 12mo, 67.

If instinct is more wonderful lower in the scale than it appears to be “in the higher animals,” the claim that instinct is preparatory for intelligence, or is a phase of power from which intelligence may be evolved, must be abandoned. The logical necessity for this I have dwelt upon elsewhere,—*Relations of Mind and Brain*, 262 ; *Evolution and Man's Place in Nature*, 191. We cannot appeal to instinct as a testimony

for intelligence. There are many inconsistencies in familiar representations of instinct. "Those insects which possess the most wonderful instincts are the most intelligent." Darwin, *Descent of Man*, 67. "The more complex instincts seem to have originated independently of intelligence," *ib.*, 67. It is difficult to find a harmonious reading of these two sentences. Wallace is not more fortunate in this suggestion,—“Much of the mystery of instinct arises from the persistent refusal to recognise the agency of imitation, memory, observation, and reason as often forming part of it.” *Darwinism*, 442. What have these to do with the skill of a bird in beginning the work of nest building; or with the peck of a chicken when emerging from its shell; or with the first action of maternal care in a ewe towards her lamb? For theoretic requirements, we must get behind “imitation, memory, observation, and reason.”

Towards a *theory of instinct*, there is more help in the reference to “reflex action.” Spencer’s *Prin. of Psychol.*, 418; Darwin, *Descent*, 67. “Reflex action” is the most simple and common illustration of instinctive action. The prick of a pin induces instantaneous recoil. Action and reaction is provided for by a nerve centre as a medium of communication, and an instrument of vital activity. Sensory and motor nerves respond to each other by reason of their relation in the centre. Differentiation will involve increase in reflexes. Amplification of the central organ will carry with it “multiplication and co-ordination of reflex actions.” Lobes of special sense expand the susceptibilities, and enlarge the possibilities. Action in response to vision is instinctive. An enlarged olfactory lobe will give proportionate facility in smell, with extended range of instinctive action. Acute smell is in no way connected with intelligence. Impregnation, growth of offspring in the uterus, lactation, all lead up to the instinctive action of the mother manifested after the birth of the young; but there is no intelligence implied; and when, with physiological changes, maternal interest and care pass away, there has been no loss of intelligence.

More difficult of explanation are the phenomena indicating adaptation of means to ends in a manner impossible to us, save

by action of intelligent purpose. The perplexity is considerably increased by the fact, that these phenomena are observed in the activity of insects, even more than in the life of higher animals, as in the history of bees, wasps, and ants. Very marked specialties in structure are accompanied by specialties in action. An ant is much more wonderful in its doings than an ox. "Much of the mystery of instinct" remains unexplained; but the evidence of observation is sufficient to convince us that "imitation, memory, observation, and reason" lie quite apart from the lives most marked for the singularity of results secured. An ant may travel quite needlessly for what it seeks, but it makes astonishing use of what it does gather.

Instinctive action extends largely into the history of *rational life*. The superiority of reason, great as that is, allows for exceedingly varied forms of instinctive action. The spontaneous is the instinctive. Of this, there is much in intelligent life, in association, memory, and thought, while feeling common to the race, and deeper emotion, are spontaneous in rise, exercising a large influence distinct from the ordinary course of reflective and voluntary determination. The race is largely swayed by emotion, reverential, sympathetic, or antagonistic, rising spontaneously with changing circumstances.

As to instinct in animals, Darwin, *Origin of Species*,—*Variation of Animals*,—*Descent of Man*; Wallace, *Darwinism*; Lubbock, *Ants, Bees, and Wasps*, International Scientific Series; M'Cook, *The Agricultural Ant of Texas*; and *The Honey Ants and the Occident Ants*; Cheshire, *Bees and Bee-keeping*; Romanes, *Animal Intelligence*, 2 vols.; Lloyd Morgan, *Animal Life and Intelligence*; Garner, *Speech of Monkeys*; Calderwood, *Relations of Mind and Brain*, chap. vii.; *Evolution and Man's Place in Nature*. As to instinct in mental life, Carpenter's *Mental Physiology*; Sully, *Human Mind*, i. 136; James, *Principles of Psychology*, ii. 383.

INTELLIGENCE (*intelligo*, to understand, to compare so as to comprehend).—Power of interpretation of sensible experience. In a higher phase, power of reasoning, so as to reach general truth by induction from particulars, or to ascertain by deduction particular applications of a general principle.

“Intelligence” has been used as the general term under which may be included all that belongs to the rational life as it exercises a power of interpretation. In this way it includes everything in our life, which may not be attributed to feeling on the one side, and to will on the other.

Within intelligence itself, there has from ancient times been drawn a distinction among intellectual powers, or phases of intellectual actions. Greek thought distinguished *νοῦς*, from *διάνοια*, the former indicating intelligence in a higher phase, the latter in a lower; but as the higher includes the lower, *νοῦς* has been taken for mind itself. When the two are set in contrast, the one signifies the higher faculty of the soul, reason proper; the other, the rationalising or discursive power, engaged in comparisons, and by comparison reaching its results. Aristotle, *De Anima*, bk. ii. By Aristotle, *νοῦς* is used “in two principal significations.” 1. “Our higher faculties of thought and knowledge.” 2. The faculty, habit, or place of principles, that is, of self-evident and self-evidencing notions and judgments.

“The schoolmen, following Boethius, translated it by *intellectus* and *intelligentia*; and some of them appropriated the former of these terms to its first or general signification, the latter to its second or special.” Hamilton, *Reid's Works*, note A, sec. 5.

“On the essential imperfections of the intellect,” Schopenhauer, *The World as Will and Idea*, transl., ii. 330.

The modern problem introduces a wider range, so as to include comparative intelligence, thus directing attention to the relations of animals to men. This range of inquiry is in harmony with the modern tendency, assigning to synthesis a value in advance of analysis. The hypothesis of Evolution has lent its influence towards formulating this new statement of the problem concerning intelligent life on the earth. When we attribute intelligence to animals and to man jointly, what are the common characteristics included under the term? Experimental Psychology includes the whole action of the sensory and motor systems within its scope. Definition of Intelligence cannot be found within this sphere, where observation deals only with movements. Sensory excitation and mere

motor action supply no features of intelligence. Nor can the definition be found by reference to phenomena of Instinct, whether Instinct belongs to the somatic life, or to the intelligent life. Instinct does not illustrate a phase of intelligence, but the absence of intelligence, appearing in spontaneity of impulse. The need for rigid definition here is as obvious, as is the difficulty of obtaining it. James says Instinct is usually defined as "the faculty of acting in such a way as to produce certain ends, without foresight of the ends, and without previous education in the performance." *Principles of Psychol.*, ii. 383. This marks an absence of Intelligence. When the definition of Intelligence is sought, James says, "with intelligent agents, altering the conditions changes the activity displayed, but not the end reached," *ib.*, i. 8. This is marked when "inorganic" is in contrast with "intelligent." It must be restated when Instinct, animal or mental, appears; and this is not so readily done. James says,—“The pursuance of future ends, and the choice of means for their attainment, are the mark and criterion of mentality in a phenomenon.” However true this may be, there is a double disadvantage in such a statement. It defines Intelligence in the language of results, passing even to the field of external action; and it does not adequately distinguish it from Instinct. Either "mentality" includes more than Intelligence, and the definition of the latter is abandoned; or the definition itself is not clear. We have still to express the difference between instinctive actions, and intelligent. Compare the two statements above, and it will appear that education is excluded from the definition of instinct; and education is only one phase of the experience of "intelligent agents"; yet there is a clear sense in which Instinct, such as in the building of a nest, is "the pursuance of future ends, and the choice of means for their attainment." The consequence of this vagueness is apparent when "Goltz ascribes intelligence to the frog's optic lobes and cerebellum."

Intelligence as known to us in consciousness needs to be defined, and that in such manner as to include its lowest phase, which may conceivably be found present in some of the higher animals. The definition should be of the procedure itself,—

not of the sensory, as its auxiliary, providing materials of knowledge,—nor of its End, or the results of its interposition. “Intelligence” appears in the interpretation of signs so as to recognise their meaning. By this its field in “mentality” is defined, being distinguished from “feeling,” resulting from excitation of sensitive organism; from “End,” as this is fixed after comparison of interests, and of means for their realisation; and from “results” as these emerge in the history of external events. This definition is inadequate as a representation of “human intelligence,” but it presents the specific distinction of intelligence, which may be the possession of other forms of life than the human. Intelligence is the interpretation of the meaning of feeling, or sign, or thing, or relations of things.

INTENTION (*in-tendo*, to stretch towards).—Cherished purpose, taking effect in directing the use of means for the attainment of a selected end.

In morals and in law, intention is the design of the agent, and is the key to the responsibility involved in action.

INTEREST (*inter*, between; *esse*, to be).—The pleasure the agent feels in his occupation. Interest, as a motive, usually means the stimulating power of individual happiness.

Butler applies the term as equivalent to self-love. “Men form a general notion of interest, . . . which is owing to self-love.” “The very idea of an interested pursuit, necessarily presupposes particular passions or appetites.” Preface to *Sermons*.

“*Interest* is that by which reason becomes practical, *i.e.*, a cause determining the will. Hence we say of rational beings only, that they take an interest in all things; irrational beings only feel sensual appetites. Reason takes a direct interest in action, then, only when the universal validity of its maxims is alone sufficient to determine the will. Such an interest alone is pure.” Kant, *Practical Reason*, Abbot, p. 116, note; Semple, p. 73.

“The interests in whose favour” consciousness exerts itself, “are its interests and its alone, interests which it creates, and which, but for it, would have no status in the realm of being whatever.” James, *Prins. of Psychol.*; his *Text-Book of*

Psychology, p. 170. Lotze, *Métaphysic*, § 264, Bosanquet's transl, p. 464.

INTROSPECTION (*intro*, within; *specio*, to see).—Observation directed upon personal experience. The exercise in which consciousness turns upon itself,—or notes its own procedure.

Consciousness is direct knowledge of the facts of experience; Introspection is voluntary concentration of consciousness on our states of experience, apart from the objective significance of what is felt, thought, or purposed.

In practical life, its familiar exercise is in self-scrutiny with a view to decide the worth of one's motive in acting. In philosophy, it is the reflective process by which the mind turns its attention upon itself, so as to distinguish the constituent elements in any state of consciousness. Internal observation is the condition on which it is possible to discriminate the facts present in consciousness, to consider their relations, and to understand the synthesis giving unity to rational procedure.

Comte maintained that any attempt at self-observation must involve disturbance of the mental activity to be contemplated. Comte, *Positive Philos.*, Martineau's transl., i. 11. There is escape from this. The power needs to be acquired; facility in the exercise is gained by practice.

“Introspective observation is what we have to rely on first and foremost and always. The word introspection need hardly be defined—it means, of course, the looking into our own minds and reporting what we there discover.” James, *Prins. of Psychol.*, i. 185.

INTUITION (from *intueor*, to behold; German, *Anschauung*).—Immediate knowledge, as in the presentation of the object. Intuitions are of two orders, lower and higher: (1) The presentations of the senses,—direct sensuous experience is intuition; (2) The presentations of the Reason, in its knowledge of necessary truth. Direct recognition of self-evident truth illustrates intuition. Between these, intuition of sense, and intuition of reason,—what is evident to the senses, and what is evident to the reason,—lies the range of discursive and inferential thought. “There are only two conditions of the

possibility of a cognition of objects: firstly, *Intuition*, by means of which the object, though only as phenomenon, is given; secondly, *Conception*, by means of which the object which corresponds to this intuition is thought." Kant, *Pure Reason*, Meiklejohn's Tr., 77.

There is direct knowledge in observation and in consciousness. The main philosophic problem connected with intuition concerns immediate knowledge of the universal. Intuition of the lower order recognises an individual object; the further question stands thus,—Is there an immediate knowledge of general truth? Are the first principles of knowledge directly known? The principle of Causality, and the principle of Justice, may be taken as symbols of the class of truths named "necessary," or "universal" truths. Immediate knowledge of these is intuition.

By the Intuitional School, it is held that the higher intuitions are at once elements of knowledge, and conditions for attainment of wider knowledge. Knowledge of first principles is *a priori*,—independent of experience,—given as a prior condition for attainment of knowledge through experience; but *a priori* has a wider application, inclusive of formal conditions of knowledge, such as the categories, and the spontaneous impulses of human life.

Variations in usage will appear from the following references and quotations.

According to Spinoza, Intuitive Knowledge "depends on the mind itself, as its real cause (*formalis causa*), in virtue of the mind itself being eternal." Spinoza, *Ethics*, v., prop. 29, Schol. "Intuitive knowledge is the perception of the certain agreement or disagreement of two ideas, immediately compared together." Locke, *Essay*, bk. iv. ch. ii. sec. 17. "In this, the mind is at no pains of proving or examining, but perceives the truth as the eye doth the light, only by being directed towards it." *Ib.*, sec. 1.

Kant's position is disclosed in the following passages.

"By means of sensibility objects are given to us, and it alone furnishes us with intuitions. By the understanding, they are thought, and from it arise conceptions. . . . That sort of intui-

tion which relates to an object by means of sensation, is called an *empirical intuition*." Kant, *Pure Reason*, intro. to *Transc. Æsthetic*.

"That presentation which can be given previously to all thought, is called intuition. All the diversity or manifold content of intuition has therefore a necessary relation to the *I think*, in the subject, in which this diversity is found." *Ib.*, Meiklejohn's transl., 81.

"*Intuition*, in English, is restricted to perceptions *a priori*; but the established logical use and wont applies the word to every incomplex representation whatever; and it is left for further and more deep inquiry to ascertain what *intuitions* are founded on observation and experience, and what arise from *a priori* sources." Semple, introd. to Kant's *Metaphysics of Ethics*.

"Certainly the highest ideas of reason, the eternal, the divine, are not to be attained or proved by means of demonstration; but this indemonstrableness, this inaccessibleness, is the very nature of the divine." Schwegler, *Hist. of Philos.*: "On Jacobi."

"*Intuition* is used in the extent of the German *Anschauung*, to include all the products of the perceptive (external or internal) and imaginative faculties; every act of consciousness, in short, of which the immediate object is an *individual* thing, act, or state of mind, presented under the condition of distinct existence in space or time." Mansel, *Proleg. Log.*, p. 9, note; Hamilton, *Reid's Works*, note B.

"Every concrete, actually performed psychological result is an intuition, or knowledge of an individual." Dewey, *Psychol.*, 236.

"The name prepares us to meet some mode of apprehension at a glance, in which all process is dispensed with, and the end is struck by a flash." Martineau, *Types of Ethics*, i. 331.

"Experiences of utility, organised and consolidated during all past generations of the human race, have been producing nervous modifications, which, by continued transmission and accumulation, have become in us certain faculties of moral intuition, certain emotions responding to right and wrong

conduct, which have no apparent basis in the individual experience of utility." Herbert Spencer, *Letter to Mill*; Bain, *Mental and Moral Science*, 721.

Intuitionism, whether in Intellectual Philosophy or in Ethical, rests on an immediate knowledge of necessary truth, the recognition of which is the natural function of reason, the highest power of the rational life. This is the basis of the Rational School in Epistemology and in Ethics, as opposed to Sensationalism and Utilitarianism.

"According to intuitionism, the mind does not at birth possess ready-made intuitions; on the contrary, the material of experience as supplied by the senses are necessary to the proper development of these intuitions. . . . As between recent experientialists and intuitionists, the question may be put as follows,—Is knowledge a mere outcome of sensations conjoined according to known psychological laws, or does it involve, as a further factor, the co-operant activity of rational principle?" Sully, *Human Mind*, ii. 351.

For a presentation of Intuitionism, see Price, *Review*; Reid, *Intellectual and Active Powers*; Kant, *Ethics*; M'Cosh's *Method of Divine Government*; Martineau, *Types of Ethical Theory*, Calderwood, *Handbook of Moral Philosophy*; Porter, *Elements of Moral Science*.

For criticism of the theory, refer to Sidgwick, *Methods of Ethics*, bk. iii. For reply to this, see Martineau, *Types of Ethical Theory*, ii. 277.

"Intuitive Judgments" is a contradiction in terms, even though we admit "automatic" action in mind.

For Physiological and Physico-psychical relations, Carpenter's *Mental Physiology*, ch. xi. p. 478. Herbert Spencer, as above; Sully, *Human Mind*, i. 465, ii. 330; on higher intuition, 351.

JUDGMENT (*judico*, to declare or decide; *jus*, right; *dico*, to say).—(1) The act of comparison, (2) its result. Comparison may, however, be more or less complex. It may be (1) the comparison of individual qualities, the result being the formation of a *Concept*; (2) the comparison of concepts, the result being the affirmation of their agreement or the reverse, which is strictly called a *Judgment*; (3) the comparison of Judgments

themselves, the result being an *Inference*. All these are instances of the same operation, viz., Judgment or Comparison, though only the second is called *Judgment*.

The Judgment (called, when expressed in language, the *Proposition*) consists of three parts: the *Subject*, *Predicate*, and *Copula* (*q.v.*).

There are two main views as to the *Nature* of Judgment—(1) the *Attributive* view, (2) the *Equational* view.

(1) The *Attributive* theory is that of Aristotle and of most subsequent logicians. On this view, the subject is to be taken extensively and the predicate intensively, and the judgment is to be regarded as an assertion or denial that the individual or class denoted by the subject-term possesses the attribute or attributes connoted by the predicate-term.

(2) The *Equational* theory is upheld by Jevons and others. It takes both the Subject and Predicate in an extensive sense, and regards the Judgment as an assertion of the *co-extension* of the *classes* denoted by the Subject and Predicate terms respectively.

Judgments have been classified with reference to (1) *Quantity*, (2) *Quality*, (3) *Modality*.

They have further been classified as *Analytic*, *Synthetic*, and *Identical*, or *Tautologous* (*q.v.*). See Ueberweg, *System of Logic*, Lindsay's transl., pt. iv. pp. 187–224, Lindsay's app., A and B).—[J. S.]

“Judgment in general is the faculty of thinking the particular under the universal.” Kant, *Critik of Judgment*, Bernard's transl., 16.

“Judgment is impossible when truth and falsehood, with their difference, are not known; and this difference cannot be known when ideas are not recognised, and where nothing exists for the mind but fact.” Bradley, *Logic*, § 18, p. 30.

JURISPRUDENCE (*jurisprudentia*; *jus*, law; *prudentia*, foresight, knowledge).—The science of law, as the expression of individual and social rights. Personal rights are based upon what is right in conduct. Jurisprudence is thus in closest relation with Moral Philosophy.

Jurisprudence is the science of law in general, and “investigates the principles which are common to all positive systems

of law." Only in a subordinate way, as illustrative of its principles, is it concerned with the laws of particular states.

Jurisprudence and Moral Philosophy both rest upon the great law of right and wrong as made known by the light of nature. Moral Philosophy is the philosophy of our knowledge and of our application of the laws of right conduct. *Jurisprudence* is the philosophy of the applications of the law of justice, as these provide for a system of personal rights essential to organisation of society; and as they may find expression in general principles, or in formal enactments.

Jurisprudence seeks to ascertain the principles of legislation, as these ought to regulate the legislation of all nations.

"To say that there is nothing just or unjust but what is commanded or prohibited by positive laws, is like saying that the radii of a circle were not equal till you had drawn the circumference." Montesquieu, *Spirit of Laws*.

Grotius, *De Jure Belli et Pacis*; Puffendorf, *De Officio Hominis et Civis*; Leibnitz, *Jurisprudentia*; Montesquieu, *Spirit of Laws*; Mackintosh, *Discourse of the Laws of Nature and of Nations*; Bentham, introd. to *Principles of Morals and Legislation*; Austin, *The Province of Jurisprudence Determined*; Lorimer's *Institutes of Law*.

JUSTICE (δικαιοσύνη, *justitia*; *jus*, law, right).—The equal between man and man as equal, in so far as all are subject to moral law. The definition applies in the *abstract*, as expressing law, or rule of conduct; in the interpretation of *Ethical life*, as the motive in action, or the virtue of character; and in the adjustment of personal rights and claims, as the end secured.

When we ask what is the thing we name justice, our ultimate appeal must be to the rule of conduct itself. An obligation superior to our choice, must become subject of choice, in order that Justice may be done, securing the rights of all concerned. In the abstract, Justice is universal law; in the concrete, it includes the minutest detail in human interest.

The range of application belonging to Justice, as the guardian of all human rights and interests, has secured for it, from ancient times till now, the largest place in ethical discussion. In ancient ethical philosophy, there is no discussion more

constantly renewed, and none more certainly unfinished, than that concerning the nature of Justice. It is often used as equivalent to righteousness, uprightness,—moral excellence. Its manifold aspects are touched in succession; when one is studied, the others are neglected; the consequence is a sense of the inadequacy of what is said. Now, it is Retribution; again, it is the majesty of law; next, it is the harmony of all interests; and once again, it is the distribution of advantages. This confusion results naturally from moving amidst its applications, instead of seeking the ultimatum in the law itself.

The Pythagoreans, using the symbolism of number and form, represented Justice as the square, the form which is equal in all directions, as broad as it is long,—*ἀριθμὸς ἰσάκης ἴσος*. Aristotle, *N. Ethics*, v. 8; *Mag. Mor.* i. 1; i. 34. To do things “squarely” is a modern echo. The Pythagorean view had reference to penalty,—that which is due to a man on account of his conduct, as the action measures the consequences. Socrates, considering Justice as the giving to every man his due, as in the paying of a debt, insists that this can be done only if by each man regard is shown for the good of his neighbour; inasmuch as Justice cannot allow of injury even to an enemy. *Republic*, i. 331. “Speaking the truth and paying your debts, is not a correct definition of justice.” Plato, placing Justice as the fourth of the Cardinal Virtues, of which Wisdom, Courage, and Temperance are the other three, represents Justice in its political aspect, in accordance with the conception of the “Republic,” as the law requiring “that every one shall do his own part,” *Repub.* 433. When in the individual life, “each part of him is doing its own business,” 443; it is concerned “not with the outward man, but with the inward,” for “he sets in order his own inner life.” Aristotle devotes book v. of the *N. Ethics* to the discussion of Justice. Taken as a virtue in the character, it is “perfect virtue with reference to others,” v. 3. Viewed in relation to civil life, it is distributive as concerned with the circulation of property, honours, and other forms of good; and it is commutative as applicable to contracts, and infliction of penalty. For Roman thought, see Cicero, *De Finibus*, v. 23; and *Tuscul.*, i. 45.

In modern philosophy, attention has been turned more upon law, as an expression of the principle of action, favouring greater exactness of definition. Modern philosophy has thus discussed largely the question of natural rights, contemplated as inalienable. Locke, in considering "what estate all men are naturally in," says "it is a state of perfect freedom to order their actions, and dispose of their possessions and persons as they think fit, within the bounds of the law of nature." *Treatise on Government*, c. ii. So in Hobbes, *Leviathan*, "Laws of Nature," c. 14,—*jus naturale*. Justice, implying a natural right, seems to involve a special difficulty for Utilitarian Ethics, which makes happiness the test of the right. Accordingly, special prominence has been given to Justice in Mill's *Utilitarianism*, c. v.; and in Sidgwick's *Methods of Ethics*, bk. iii. c. v. Herbert Spencer has devoted a division of his Ethical System to the subject of Justice.

KNOWLEDGE (*γνῶσις*, *cognitio*).—The mind's conscious relations with external existence, or with internal occurrence, and its interpretation of these relations. Its basis is consciousness; its causality is the voluntary activity of conscious life; its method, interpretation by difference; its result, knowledge of existence, external or internal.

Knowledge is immediate, as consciousness itself; mediate, as depending on process of reasoning, inductive or deductive. Immediate knowledge in consciousness is indubitable; Knowledge by reasoning requires criticism of its own procedure, by reference to laws of evidence and of thought,—verification by testing of its own process, in accordance with its recognised laws. Epistemology is the philosophy of knowledge, and this must supply the foundation of all philosophy.

In the midst of general agreement, there has been considerable variety in the mode of describing knowledge and its conditions.

"Of my thoughts some are as it were images of things, and to these alone properly belongs the name *idea*." "Ideas considered only in themselves . . . cannot, properly speaking, be false." There thus only remain our judgments, in which we must take diligent heed that we be not deceived. "Among

these ideas some appear to me to be innate, others adventitious, and others to be made by myself, factitious." Descartes, *Medit.*, iii.

Knowledge "may be either inadequate or adequate,—and symbolic or intuitive." Leibnitz, *Medit. de Cognitione Veritate et Ideis*.

"*Knowledge* is the perception of the connection and agreement, or disagreement and repugnancy of any of our ideas. In this alone it consists." Locke, *Essay*, iv. 1. 2.

"If the word *idea* be used as . . . sometimes to signify thought, sometimes to signify those internal objects of thought," which are images of things, "this must occasion confusion." Reid, *Intell. Powers*, Essay ii. c. 9.

"All our knowledge begins with experience." "It by no means follows that it all originates from experience." "By what means should the faculty of knowledge be aroused to activity but by objects, which, acting upon our senses, partly of themselves produce ideas in us, and partly set our understanding at work to compare these ideas with one another, and, by combining or separating them, to convert the raw material of our sensible impressions into that knowledge of objects which is called experience?" Kant, *Pure Reas.*, Intro.

"All human cognition begins with intuitions, proceeds from thence to conceptions, and ends with ideas." Kant, *Pure Reason, Transc. Dial.*, bk. ii. c. 3.

"The relation of knowing is the most mysterious thing in the world. If we ask how one thing *can* know another, we are led into the heart of *Erkenntnisstheorie* and metaphysics. The psychologist, for his part, does not consider the matter as curiously as this. Finding a world before him which he cannot but believe *he* knows, and setting himself to study his own past thoughts, . . . knowledge becomes for him an ultimate relation that must be admitted." "There are two kinds of knowledge broadly and practically distinguishable; we call them respectively knowledge of acquaintance and knowledge about . . . I am acquainted with many people and things, which I know very little about. . . . The less we analyse a thing, and the fewer of its relations we perceive, the less we know about it,

and the more our familiarity is of the acquaintance type." James, *Prins. of Psychol.*, i. 215, 221. Fichte, *Science of Knowledge*; Lotze, *Logic*; Green, *Prolegomena to Ethics*; John Grote, *Exploratio Philosophica*; Veitch, *Knowing and Being*; Bradley, *Logic*; Laurie, *Nova Metaphysica*.

LANGUAGE (*lingua*, the tongue; hence "tongues," languages).—Expression of thought, feeling, and purpose, by use of names and general terms, and their grammatical association, in accordance with conditions of thought. It implies use of vocalisation by physiological appliances, moved from the brain, the function being localised in the cortex. Ferrier, *Functions of Brain*. Vocalisation, being a physical function, belongs to animal life generally, and may be secured as a reflex-motor, from sensory impression, as in the dog. *Ib.*; described, Calderwood's *Relations of Mind and Brain*, p. 99. The variety of vocalisation in animals may be named "language" as being the symbol of feeling. Garner, *Speech of Monkeys*. But language as the symbol of thought, is the use of vocables, in grammatical relation. Max Müller, *Origin of Language*.

"Language is a system of signs, different from the things signified, but able to suggest them. No doubt brutes have a number of such signs, . . . but when we come to Man, we find a great difference. He has a deliberate intention to apply a sign to every thing. The linguistic impulse is with him generalised and systematic." James, *Prins. of Psychol.*, ii. 356. "On Lip-reading," Carpenter, *Mental Physiol.*, 204.

Language, as expressing thoughts, becomes an aid in thinking. "Language is evidently, and by the admission of all philosophers, one of the principal instruments or helps of thought." Mill, *Logic*, bk. i. c. 1.

Language is related to the problem of Evolution of Intelligence in the world. Darwin, *Descent of Man*, 12mo, 86. "The lower animals differ from Man solely in his almost infinitely larger power of associating together the most diversified sounds and ideas; and this obviously depends on the high development of his mental powers." *Ib.*, 85.

Romanes, *Animal Intelligence*, and *Mental Evolution in Man*. Lloyd Morgan, *Animal Life and Intelligence*. Garner,

Speech of Monkeys. Calderwood, *Evolution and Man's Place in Nature*; and *Relations of Mind and Brain.*

LATENT MODIFICATIONS OF MIND.—Activity of mind not present in consciousness, or not observed as present, nevertheless inferred as apparently essential to what is consciously done. One considerable part of the explanation of such action may be “unconscious cerebration.” Carpenter, *Mental Physiology.* Another and more important part is the complexity of mental exercise, and the occupation of attention with more prominent features in a mental state. Sully, *Human Mind*, i. 465.

The action of mind is so marvellous, and a philosophy of its procedure so difficult, that it seems needful to recognise a considerable amount of unexplained activity.

The phenomena of Hypnotism, involving the use of suggestion by an operator, have illustrated how largely mind may act upon an accepted basis, not consciously ascertained or verified.

LAW (Anglo-Saxon, from verb signifying “to lay down”; *lex*, law; λέγω, to arrange).—The expression of a systematised order of events in nature. The significance of the word varies according to the diversity of sphere in which it applies—(1) **PHYSICAL LAW**, a uniform sequence of material phenomena; (2) **INTELLECTUAL LAW**, a condition of rational procedure essential for attainment of truth; (3) **MORAL LAW**, an imperative of conduct, requiring right action; (4) **CIVIL LAW**, a statute issued by the Legislature regulating the relations and actions of the people of the State.

The general conception of Law is that of a fixed order in Nature, which must be accepted as such by a rational agent. Its secondary sense, is the fixed order established in society by constituted authority.

For Science and Philosophy, the conception of Law is fundamental. “Metaphysics must start from the ideal of law,” involving a teleology. Lotze, *Metaphy.*, transl., p. 15.

What is called “uniformity of law” in physical nature, is resolvable into “the persistence of relations among forces.” Herbert Spencer, *First Principles.* In this sphere, Laws are “those highest generalisations now being disclosed by Science

which are severally true not of one class of phenomena, but of *all* classes of phenomena."

The Epistemological problem involved is this,—Are all laws of Nature known as inductions; or are the laws of thought and of right conduct, known as necessary truths? This is the fundamental question of Epistemology, brought into view by the inductions of Science. All laws of the physical order in the universe are inductions, expressive of a uniform relation of things. They are conclusions formulated from observations. When we enter the sphere of rational life, "law" becomes *rule* of conduct, to be interpreted and applied by a rational agent, in order that the end may be secured. Here we have a distinct phase of law;—"prescribed rule," application of which is possible only in the life of a rational agent.

Ethical law is depicted by Kant as "The Imperative of Reason" which declares an action to be objectively necessary. In this view "Duty is the necessity of acting from respect for the law."

Moral laws are "those maxims by the observance of which our conduct acquires an approbation that is independent of all consequences." Lotze, *Outlines of Pract. Philos.*, transl., 2.

LIBERTARIAN.—Applicable to the doctrine of Free-Will, and to its supporters. This doctrine is that Will-power implies capability of rational self-control in government of motives.—See FREEDOM OF WILL.

LOCAL SIGNS.—A phrase used to describe the means employed for conversion of the non-spatial data of sense into a spatial world. "The single impressions exist together in the soul in a completely non-spatial way, and are distinguished simply by their qualitative content. . . . From this non-spatial material, the soul has to re-create entirely afresh the spatial image that has disappeared; and in order to do this, it must be able to assign to each single impression the position it is to take up in this image relating to the rest, and side by side with them. Presupposing this . . . that for unknown reasons the soul can and must apprehend in spatial forms what comes to it as a number of non-spatial impressions, some clue will be needed, by the help of which it may find for each

impression the plan it must take, in order that the image that is to arise in idea may be like the spatial figure that has disappeared." Lotze, *Metaphysics*, bk. iii. ch. iv., Bosanquet's Tr., p. 485. The means of this "localisation" of the impressions are "local signs." "A token of its former spatial position must be possessed by each impression, and retained throughout the time when that impression, together with all the rest, was present in a non-spatial way in the unity of the soul. Where, then, does this token come from? . . . It is not until these similar stimula come in contact with our bodies that they are distinguished, and then they are distinguished according to the different points at which they meet the extended surface of our organs of sense. This accordingly may be the spot at which the token I am describing has its origin, a token which is given along with the stimulus, in consequence of the effects produced by it at this spot, and which in the case of each single stimulus is distinguished from that given along with any other stimulus." *Ib.*, pp. 485-6. See Wundt, *Grundzüge der Physiol. Psychologie*.

LOGIC (λογική, λόγος, reason, reasoning, language).—The word *logica* was early used in Latin; while ἡ λογική and τὸ λογικόν were late in coming into use in Greek. Aristotle did not use either of them. His writings, which treat of the syllogism and of demonstration, were entitled *Analytics*. The name *Organon* was given to the collected series of his writings upon *logic* by the Peripatetics (cf. *Topics*, viii. 14). The reason of the name is, that *logic* was regarded as not so much a science in itself, as the *instrument* of all science. The Epicureans called it *κανονική*, the rule by which true and false are to be tried. Plato, in the *Phædrus*, had called it a *part* (μέρος), and in the *Parmenides* the organ (ὄργανον) of philosophy (see Trendelenburg, *Elementa Log. Arist.*). An old division of philosophy, originating with the Stoics, was into *logic*, *ethics*, and *physics*.

The name *Logic* is used in a variety of senses.

First, there is a most restricted use, which limits to *Formal Logic*—the science of the laws of thought, as thought. Hamilton, Mansel, Thomson.

"*Logic* is the science of the laws of thought as thought; that is, of the necessary conditions to which thought, con-

sidered in itself, is subject." Hamilton, *Reid's Works*, p. 698, note.

"It is the science of the *form* or *formal laws* of thinking, and not of the *matter*." Thomson, *Outlines of the Laws of Thought*.

Second, the theory of evidence, or philosophy of the whole mental processes by which the mind attains to truth. "The science of the operations of the understanding which are subservient to the estimation of evidence." Mill's *Logic*, Intro., § 7. On the question how far Logic is concerned with the *method*, and not with the mere *form* of thought, see Lotze, *Logic*, p. 26, Bosanquet's transl.

Third, an account of the ultimate principles of knowledge in their systematic connection. This is the *Transcendental Logic*, according to the Critical Method of Kant. "Logic may be considered as twofold, namely, as Logic of the general, or of the particular use of the understanding. . . . General Logic is, again, either pure or applied. In the former, we abstract all the empirical conditions under which the understanding is exercised." In the latter, Logic "is directed to the use of the understanding, under the subjective empirical conditions which psychology teaches us." *Critique of Pure Reason*, Transc. Analytic, Intro.

Fourth, a rationalised theory of existence. Thus Hegel calls his entire system a *Logic of Being*. The process of existence and of thought alike being a dialectic movement, the following out of that movement in either of its aspects is a *Logic*. All thought-movement, having in every advance these three moments, affirmation, negation, and absorption, is the key to existence as a totality, for all is movement of the rational.

Logic has been variously subdivided, as *Pure*, and *Mixed* or *Applied*. The former would embrace the Logic of Deduction; the latter that of Induction and Testimony. *Deductive Logic* consists of three parts, corresponding to the three forms in which thought manifests itself, viz., the Concept, the Judgment, and the Syllogism. Method, or the scientific arrangement of thoughts, is frequently added as a fourth head. For a statement and criticism of the doctrines of the leading logical schools, as well as the discussion of the nature and province

of *Logic*, see art. "Logic," by Adamson, *Encyclopædia Britannica*, 9th ed.

LOVE.—Benevolent disposition, involving regard, admiration of the person, and readiness to help. Love and Hate are the affections of mind from which all the others take their rise. The former is awakened by the contemplation of that which is regarded as good; the latter by contemplation of that which is regarded as evil. This in the rational life is the form in which the common law of attraction and repulsion manifests itself.

MACROCOSM (*μακρός*, large; *κόσμος*, world).—The opinion of many ancient philosophers that the world consists of a soul and a body, was exaggerated by the mystics into the theory of the *macrocosm* and the *microcosm*, according to which the universe represented man on a grand scale, and man was an epitome of creation.

MAGNANIMITY (*magnus*, great; *animus*, mind).—Greatness of soul. The crowning element in character, springing from appreciation of the dignity of human nature, in view of its powers and responsibilities. Aristotle's description of "the great-souled man" appears in *N. Ethics*, bk. iv. c. iii.

MAGNETISM (Animal).—The hypothesis that the phenomena of Hypnotism can be explained by a magnetic current passing from one organism to another. The hypothesis is unsupported by recent observations.—*Vide* HYPNOTISM.

MAGNITUDE.—Perception of this is by touch and by vision. "The real magnitude of an object is directly known by means of active touch. . . . All that the eye gives us directly is an apparent magnitude determined by the area of the retinal image." Sully, *Human Mind*, i. 250; James, *Text-Book of Psychology*, p. 342.

MAJOR.—Applied both to terms and to propositions, regarded as parts of the syllogism. The *major* term is that which is the predicate of the conclusion; the *minor*, that which is the subject of the conclusion. The reason of their being thus designated is that in the Aristotelian logic, the subject and predicate of the conclusion are respectively included and including. The premiss in which the major term is compared

with the middle is called the *major premiss*; that in which the minor and middle terms are compared being called the *minor premiss*.—[J. S.]

MANICHÆISM.—The doctrine that there are two eternal principles, the one good and the other evil, to which the happiness and misery of all beings may be traced. It is attributed to Manes, a Persian philosopher, who flourished about the beginning of the third century. It has been questioned whether this doctrine was ever maintained to the extent of denying the Divine unity, or of affirming that the system of things had not an ultimate tendency to good. It is said that the Persians, before Manes, maintained a dualism giving the supremacy to the good principle; Manes maintained both to be equally eternal and absolute.

The Manichean doctrine is favoured by J. S. Mill, *Essays on Religion*, p. 116, who regards it as more consonant with the facts of history, than is the conception of an all-powerful God, providing for the good of all sentient beings. This is his interpretation of the evil in the universe. See Martineau, *Types of Ethical Theories*, ii. 89.

MATERIALISM reduces all existence to unity in matter.

I. *Ancient.*—Materialistic thought in ancient Greece is represented by Leucippus and Democritus, who were “the founders of the Atomistic philosophy,” and later by Epicurus, who maintained that atoms and space exist from eternity. Lucretius is the expounder of the doctrine among the Romans.

II. *Modern Materialism* follows on lines essentially the same as ancient atomism. It is, however, more conscious: the distinction between mind and matter having been more deeply realised. Modern materialism is more sharply defined and more dogmatically expressed than the corresponding ancient systems.

Gassendi, Hobbes, Hartley, Priestley (England); La Mettrie and Von Holbach (France). See Lange’s *History of Materialism* (transl. by Thomas), “Materialism in England,” bk. i. sec. 3, c. 3; Zeller’s *History of Greek Philosophy, Pre-Socratic Period* (on the Atomists); Sellar’s *Roman Poets of the Republic* (Essay on Lucretius); Veitch’s *Lucretius and the Atomic Theory*;

Munro's *Lucretius*; Flint's *Anti-Theistic Theories*, lects. ii. iii. iv., app. v.—xix; John Masson, *Lucretius*.

Priestley, *Disquisitions on Matter and Spirit*; *Three Dissertations on the Doctrine of Materialism and Philosophical Necessity*; Price, *Letters on Materialism and Philosophical Necessity*.

Under this doctrine, mind is only a function of the brain. The structure of this organ is held to account for all that distinguishes the intellect of man. "The brain secretes thought, as the liver secretes bile." Cabanis, *Rapport du Physique et du Moral de l'Homme*.

MATHEMATICS (μαθηματική [sc. ἐπιστήμη]; τὰ μαθήματα).
—The science of spatial and quantitative relations.

Pythagoras and his followers found the ultimate explanation of things in their mathematical relations. Spinoza applied to philosophy the mathematical method of demonstration from Definitions and Axioms.

The philosophic problem at the basis of mathematical thought, concerns the question whether mathematics supplies an illustration of necessary truth, recognised as self-evident. On this problem, Kant and J. S. Mill may be taken as representatives of the conflicting views.

"That in the sphere of human cognition, we have judgments which are necessary, and in the strictest sense universal, consequently pure *a priori*, it will be an easy matter to show. If we desire an example from the sciences, we need only take any proposition in mathematics." Kant, *Pure Reason*, Intro., ii., Meiklejohn's transl., p. 3. "Geometrical principles are always apodeictic, that is, united with the consciousness of their necessity, as "Space has only three dimensions." *Ib.*, *Æsthetic*, transl., p. 25; cf. Kant's *Prolegomena*, secs. 6-13.

"When it is affirmed that the conclusions of geometry are necessary truths, the necessity consists in reality only in this, that they necessarily follow from the suppositions from which they are deduced." Mill, *Logic*, bk. ii. ch. v. sec. 1. Thus he maintains that "our reasonings are grounded on the matters of fact postulated in definitions, and not on the definitions themselves." *Logic*, bk. i. ch. viii. sec. 6.

MATTER.—Extended substance; *res extensa*, measurable according to length, breadth, and thickness; divisible according to quantity. “Body, from its nature, is always divisible.” Descartes, *Medit.*, vi.

Its recognition by mind involves a dualism, *res cogitans*, as distinct from *res extensa*. Extended substance does not know. Mind knows extended substance as different and apart from itself, through the sensory, and by its interpretation of sensible experience.

Aristotle distinguished between matter and form,—*ὕλη* and *εἶδος*. Treating these abstractly, he represented matter void of form as *ὕλη πρώτη*, *prima materia*. The question arises whether this is first in the order of time. If so, how are we to explain the variety of form? The real is the concrete unity, form and matter, *τὸ σύνολον*.

Kant has a special use of “matter,” in the interpretation of our Knowledge. “Our Empirical Knowledge is a compound of that which we receive through impressions, and that which the faculty of cognition supplies from itself.” *Pure Reason*, Intro. “The undetermined object of an empirical intuition, is called phenomenon. That which in the phenomenon corresponds to the sensation, I term its *matter*; but that which effects that the content of the phenomenon can be arranged under certain relations, I call its *form*.” *Pure Reason*, *Transc. Æsthet.*, § 1.

MAXIM (*maxima propositio*, a proposition of the greatest weight), synonymous with *axiom*; a rule of conduct, a self-evident truth; Hamilton, *Reid's Works*, note A, sec. 5. “There are a sort of propositions which, under the name of *maxims* and *axioms*, have passed for principles of science.” Locke, *Essay on Human Understanding*, bk. iv. ch. vii.

In the *Ethics* of Kant, *Law* is “the objective principle,” carrying direct command. “*Maxim* is the subjective principle of volition.” “Duty is the necessity for acting from respect for the law.” One’s maxim may be a self-made rule. True Ethical life is action in accordance with the dictate of the reason. Here “nothing remains which can determine the will except objectively the *law*, and subjectively *pure respect* (rever-

ence) for this practical law, and consequently the *Maxim* to follow this law even to the thwarting of all my inclinations." *Groundwork of the Metaphysics of Morals*, sec. 1.

MEAN (The), (τὸ μέσον or μεσότης).—The middle course between passion and apathy. This is the watchword of the Aristotelian ethics. The term emphasises the great distinction between the ethics as well as the metaphysics of Plato and of Aristotle. According to Aristotle, Virtue is concerned with pleasures and pains; these follow upon our actions; hence our actions are liable to be determined by reference to happiness as the End. But all desire tends to excess, wherein is the danger of life. Virtue depends on the energy of the soul, directed according to reason, κατὰ τὸν ὀρθὸν λόγον (*N. Eth.* ii. 2, 2), in view of the honourable and expedient. Virtuous action is that which finds the happy mean, the action which takes the middle course, shunning extremes. Thus Virtue itself is a mean, a Habit formed by deliberate preference, seeing life's risks and its rewards. Virtue is that by which man becomes good, and attains to true blessedness, such as the great-souled man experiences. Aristotle, *N. Ethics*, books i. ii. iii.; Grant, *Aristotle's Ethics*, Essay iv. vol. i. 251; E. Wallace, *Outlines of the Philos. of Aristotle*; Benn, *Greek Philosophers*, i. 397.

MEDULLA OBLONGATA.—An oblong body, constituting a part of the great nerve centre, situated above the spinal cord, and just below the Pons. It consists of eight elongated bodies, which together afford a subordinate centre. Here the nerve fibres are arranged in bands or columns; and the cellular or grey matter is distributed through the substance. It is a centre of distribution in close relation with the spinal cord.

MEGARICS (The).—The school founded by Euclid of Megara reckons as one of the three Socratic schools. Its interest was more dialectical than ethical. The teaching of the Megarics is described by Schwegler as "a Socratic transformation of the Eleatic doctrine." Intellectually, the Megarics busied themselves with a negative existence, intended to disprove the reality of the sensuous and manifold, and preparing the way for the post-Aristotelian Scepticism; while, Ethically, their inculcation of the necessity of a life of pure reason, in

which sense and passion were utterly annihilated, has been well called "only a finer, more intellectual Cynicism." Zeller, *Socrates and the Socratic Schools*, Eng. transl. ; Schwegler and Ueberweg, *Histories of Philosophy, in loc.*

MEMORY (*memini*, to remember, to recall).—The power of recalling to consciousness experience and knowledge. There are two sides to the process of recollection, the one physical, the other mental; the one in the field of *neurosis*, the other in the field of *psychosis*. The sensory centres, being in constant use, are readily thrown into activity, at times even reproducing impressions without contact with the external object. On the side of intelligence, there is conscious association of impressions, conceptions, and experiences such as are dependent on power of comparison. This is the intelligent phase of recollection,—remembrance of what has cost us effort to reach and retain,—a continually recurring testimony for the continuity of the conscious life. The Intellectual phase of memory is the dominant, the physical being only auxiliary; but so far auxiliary that, in the recalling of scenes and incidents, there is good reason for supposing that there is renewed excitation of the sensory centres. Continuous action of both sides, physical and mental, is the natural harmony.

"The cause both of retention and of recollection is the law of habit in the nervous system, working as it does in the 'Association of ideas.'" James, *Prin. of Psychol.*, i. 653. "All improvement of memory consists in the improvement of one's habitual methods of recording facts." *Ib.*, i. 667. There is obvious need for distinguishing the two sides; next contemplating them in combination. Memory includes all that belongs to the activity of our life; but the centre of its power is the rational activity which concerns itself with interpretation of experience. "All improvement of memory consists in better *thinking*." *Spontaneous memory is remembrance. Intentional memory is recollection or reminiscence.* The former is *passive*, the latter *active*, memory. Sully, *Outlines of Psychology*, p. 276. Carpenter, *Mental Physiology*, c. ii.; Wundt, *Physiol. Psychologie*, I. 559, 594; Ladd, *Physiological Psychology*, 545-549; Calderwood, *Mind and Brain*, c. ix.;

Ribot, *Diseases of Memory*; Ziehen, *Outlines of Physiological Psychology*, c. xi.

Plato, in seeking to account for our knowledge of the ideal, supposes the pre-existence of the soul, and adopts the hypothesis that knowledge of truth transcending our present experience is to be regarded as a phase of remembrance, ἀνάμνησις. *Meno*, 86; *Phædo*, 73.

MENTAL PHILOSOPHY.—A rational explanation of the facts of consciousness (*Psychology*), of the conditions of knowledge (*Epistemology*), and of the problem of Being (*Metaphysics*). Philosophy is Intellectual, as dealing specially with the cognitive power; Ethical, as concerned with the conditions of right conduct. These two divisions are mutually dependent, and are complementary in the interpretation of existence.

MERIT (*meritum*, deserving; μέρος, a part, share, or portion).—The good desert of the moral agent in his fulfilling of moral law, as deserving of praise or reward. Self-approbation in well-doing has its social equivalent in the approbation of all moral beings. Thus good desert is recognition in moral government of fulfilled obligation, in view of individual responsibility for conduct.

MESMERIC SLEEP.—Artificially induced slumber, during which mental activity is maintained under direction of an operator. *Vide* HYPNOTISM.

METAPHYSICS (μετά, with, coming next with; φύσις, nature).—Speculative philosophy, transcending questions as to the nature of mind, and including the general problems of Being,—Ontology. This department of philosophy is concerned with the whole range of speculative problems, beyond the nature and relations of things, thus expressly transcending empirical psychology.

The origin of the term is commonly referred to Andronicus of Rhodes, the collector of the works of Aristotle, about 70 B.C., who inscribed upon a portion of them the words Τὰ μετὰ τὰ φυσικά. Whether the phrase was intended merely to indicate that this portion should stand after the *Physics* in the order of the collected works of Aristotle, or to mark the philosophic significance of the work as the πρώτη φιλοσοφία—(the funda-

mental or ultimate philosophy),—dealing with $\delta\nu \eta \delta\nu$,—is not clear. Ueberweg's *Hist.*, i. 145; Schwegler's *Hist.*, p. 98.

“The name ‘Metaphysics’ is a creation of Aristotelian commentators. Plato’s word for it was ‘Dialectics,’ and Aristotle used instead of it the phrase ‘first (fundamental) philosophy,’ while Physics in a like connection is for him ‘a second philosophy.’ Every science selects for investigation a special sphere, a particular species of being, but none of them applies itself to the notion of Being as such. There is a science necessary, therefore, which shall make an object of inquiry on its own account, of that which the other sciences accept from experience, and as it were hypothetically. This is the office of the first philosophy, which occupies itself therefore with being as being, whereas the other sciences have to do with special concrete being. Metaphysics constituting, then, as this science of being and its elementary grounds, a presupposition for the other disciplines, are naturally *first* philosophy. If there were, says Aristotle, only physical beings, physics would be the first and only philosophy; but if there is an immaterial and unmoved essence which is the ground of all being, there must be also an earlier, and, as earlier, universal philosophy. This first ground of all being is God, and for that reason Aristotle sometimes also calls his first philosophy Theology.” Schwegler, *History of Philosophy*, 8th ed., p. 98, Stirling’s Tr.

In common usage, “Metaphysics” includes all problems concerned with the Universe, regarded as a systematised whole, within the sphere of science; and, beyond this, with the Totality of Being, for which the known Universe is witness. It presupposes a Philosophy of Observation,—Science and Philosophy taken together.

Its method implies that the results of observation are accepted as data, while observation itself is inadequate to deal with the problems which it raises, and that Reason must pursue its own course for its own satisfaction, relying on the laws of thought themselves. Thought must complete its self-imposed task, seeking a system of Being, in harmony with observation, external and internal, always giving precedence to “the facts of consciousness.”

For a Rational Philosophy, this is the ultimate philosophy. Its antagonistic scheme is Positivism, which knows only facts, and, ignoring causes, assigns "Metaphysic" to the infancy of the race, circumscribes inquiry by a boundary-line of "Agnosticism," and denies the possibility of "Metaphysics" as defined above.

Kant, devoting his main efforts to secure an adequate theory of knowledge, gives a subjective, rather than an objective rendering of the term "Metaphysic." He is less concerned with the sphere of knowledge; more with the *mode* of knowing, and more especially with the *conditions* of knowledge. His aim is to find along with the empirical, and in the midst of it, the Transcendental,—the presence in experience of conditions not supplied by experience,—and for him this is the "Metaphysical" in knowledge, that which is along with, and yet beyond, all questions as to the nature of the things known. The first result under his method is destructive, for the Ideas of the Reason,—God, the Soul, the Universe,—are merely regulative of our procedure, and have no objective significance, such as Descartes claimed,—Descartes, *Method*. But, the "Metaphysical" in Epistemology must lead on the more surely to "Metaphysics" as a branch of Philosophy. This Kant at once recognises when he passes to Practical Philosophy, where the authority of moral law is the essential fact.

The following quotations illustrate Kant's positions:—
"Reason finds itself compelled to have recourse to principles which transcend the region of experience, while they are regarded by common-sense without distrust. It thus falls into confusion and contradictions. . . . The arena of these endless contests is called *metaphysic*." Preface to 1st edition of *Pure Reason*, Meiklejohn's Tr., xvii. Metaphysic is thus "a science which shall determine the possibility, principles, and extent of human knowledge *a priori*." "In this transcendental or supersensible sphere, where experience affords us neither instruction nor guidance, lie the investigations of *Reason*. . . . The unavoidable problems of mere pure reason are God, Freedom (of will), and Immortality. The science which, with all its preliminaries, has for its special object the solution of these problems, is named Metaphysics." *Ib.*, 4, 5. "Metaphysic is

divided into that of the *speculative* and that of the *practical* use of pure reason, and is, accordingly, either the metaphysic of nature, or the metaphysic of ethics. The former contains all the pure rational principles . . . of all theoretical cognition; the latter the principles which determine and necessitate *a priori* all action. . . . The metaphysic of speculative reason is what is commonly called metaphysic in the more limited sense. But as a pure moral philosophy properly forms a part of this system of cognition, we must allow it to retain the name metaphysic." *Ib.*, p. 509.

"Metaphysics means nothing but an unusually obstinate effort to think clearly." James, *Princ. of Psychol.*, i. 145. Metaphysical Method in Philosophy, Hodgson, *Mind*, ix. 48.

METEMPIRICAL (*μετά*, beyond; *ἐμπειρία*, experience).—"Since we are to rise to Metaphysics through Science, we must never forsake the method of science; and further, if, in conformity with inductive principles, we are never to invoke aid from any higher source than experience, we must, perforce, discard all inquiries whatever which transcend the ascertained or ascertainable data of experience. Hence the necessity for a new word which will clearly designate this discarded remainder—a word which must characterise the nature of the inquiries rejected. If, then, the *empirical* designates the province we include within the range of science, the province we exclude may fitly be styled the *Metempirical*." *Problems of Life and Mind*, 1st series, p. 16, G. H. Lewes.

METEMPSYCHOSIS (*μετά*, beyond; *ἐμψυχός*, having life;—*ἐν*, in; *ψυχή*, breath, life, soul).—The transmigration of the soul from one body to another.

According to Herodotus (ii. 53, 81, 123), the Egyptians were the first to espouse this doctrine of transmigration of the soul through a variety of animal forms. The conception passed over to the Pythagoreans, and was adopted by Plato, as accounting for the present disordered condition of our race, as captives to sense. The Pythagoreans had previously represented the soul as chained to the body, dwelling in it as in a prison. To this Plato seems to refer,—*Phædo*, 62. "Those men, for whom it would be better to die, may not do themselves

a service, but they must await a benefactor from without. . . The reason which the teaching gives" (apparently the Pythagoreans) "is, that man is in a kind of prison, and that he may not set himself free, nor escape from it, seems to me rather profound, and not easy to fathom." Church's Transl. Pater, *Plato and Platonism*, p. 57.

METHOD (*μέθοδος*; *μετά*, with, and *ὁδός*, a way).—Systematised conditions for advancing from one position to another; the rule of procedure for thought, in accordance with which truth may be reached; the essential conditions for Epistemology. "We ought to see well what demonstration (or proof) suits each particular subject; for it would be absurd to mix together the research of science and that of *method*." Aristotle, *Metaphys.*, lib. ii. Aristotle first developed Formal Logic, giving us the Deductive method, inference from a general truth to particulars. Modern Philosophy has made conspicuous the Inductive Method,—inference of general truth from observed examples. Method "involves the two great questions, what is the distinction, and what is the road to the distinction." Baldwin, *Elements of Psych.*, 12.

Aristotle's *Organon*; Descartes, *Method*, Veitch's transl.; Kuno Fischer, *Descartes and his School*, Gordy's Tr.; Mill, *Logic*; Jevons, *Principles of Science*; Lotze, *Logic*, Bosanquet's Tr.; Cyples, *Process of Human Experience*.

MICROCOSM (*μικρός*, small; *κόσμος*, world).—Commonly applied to Man, whose nature, physical and spiritual in one, is representative of the cosmos as a whole. Bacon, *Advancement of Learning*, bk. ii.; Reid, *Active Powers*, iii. l. 1; Lotze, *Microkosmos*, translated by Hamilton and Jones, i. 401.

MIND (*mens*; *νοῦς*; Anglo-Saxon, *ge-mynd*, to think; German, *meinon*).—Intelligence, as seen in self-conscious activity, gathering knowledge of existence.

Mind appears in relation with organic life, but is known in consciousness as distinct from organism in exercise, and in the results of activity. It stands in contrast with organism: its feeling is distinct from nerve sensibility; its activity is different from motor activity. While in man's experience the relation of organism and mind is constant, it is a relation disclosing at

every point the superiority of mind to organism. The Sensory is subject to excitation by contact with the external ; Mind interprets consequent experience. In the field of activity, mind contemplates the conditions of action, and the end to be reached ; forms a purpose, and utilises muscular activity in the exercise of will-power. Intelligence is directly known by man in the activity of his own consciousness. Thought is its essential characteristic. We attribute intelligence to our fellow-men only as they give expression to intelligence in word or action. Language is the first index to the intelligence of others ; range of activity is the next.

The question, does Mind appear in relation with organic life lower than the human, can be answered only by observation of animals. In default of language, their actions must supply the evidence. Within animal experience, we distinguish sensibility, instinct, and interpretation of signs other than those which are the expression of their physical feeling. The great difficulty in conducting observations is to find an exact definition of "mind." That the exercise of thought by use of general terms does not belong to animals, is clear. The definition of "Intelligence" must exclude this, and must include that in our own intelligent life which falls beneath this. Interpretation of signs, arbitrary yet intelligible, seems the test most available.

On the relation of animal to human intelligence, consult Darwin, *Descent of Man*, c. iii. ; Wallace, *Darwinism*, p. 461 ; Herbert Spencer's *Psychology*, part iv. c. 5 ; Sully, *Psychology*, 481 ; Lloyd Morgan, *Animal Life and Intelligence* ; Romanes, *Animal Intelligence and Mental Evolution in Animals* ; Calderwood, *Relations of Mind and Brain* ; and *Evolution and Man's Place in Nature* ; Murphy, *Habit and Intelligence*.

As Mind concerns itself with the source of all finite existence, Philosophy must refer to an Intelligent First Cause.

Anaxagoras was the first of the Greek philosophers to speak of "mind," *Noûs*, as the source of all things in the Universe. This seemed to Socrates a wiser suggestion than "eccentricities," such as air, water, fire. "I heard of some one who had a book of Anaxagoras, as he said, out of which he read that Mind was the disposer and Cause of all ; and I was quite delighted at the notion of this." Plato, *Phædo*, 97, Jowett's transl.

As to Mind in man, consciousness is the witness, and its testimony is on all hands admitted to be indubitable. Since the direct questioning of Consciousness was begun by Descartes, there has been no debate as to the certainty of what is revealed by consciousness. No less certain is the other side of the Cartesian statement, "Cogito," "I think." Thought, strictly interpreted, is the distinguishing characteristic of the intelligent life in man.

"By Mind (Gemuth), there is only to be understood the faculty of combining given representations, and so producing unity of empirical apperception (*Animus*), not the substance (*Anima*), as in nature altogether distinct from matter." Kant, *Anthropologie, Werke*, vii. 119. Adamson, *Philos. of Kant*, 241.

For analysis of consciousness, see Ward's "Psychology," *Encyclopædia Britan.*, 9th ed. With "Psychology" must be considered the physical basis of mental activity, as revealed by "Physiology," involving the relations of Brain and Mind. Lotze, *Metaph.*, bk. iii. c. 5; Clifford, *Lectures and Essays*, ii. 71; Prince, *The Nature of Mind and Human Automatism*.

The theory of Evolution has given force to this inquiry,—At what point does mind first appear in the scale of life? The biological question is one of science and of philosophy; the question of fact depends on the definition of "Mind."

From one point of view, Mind is presupposed in Evolution. This Darwin recognised. In the opening of his chapter on Instinct is this prefatory statement: "I may here premise, that I have nothing to do with the origin of the mental powers, any more than I have with that of life itself." *Origin of Species*, 191. "If Evolution is to work smoothly, consciousness in some shape must have been present at the origin of things." James, *Principles of Psychol.*, ii. 149. From another point of view, Evolution only presupposes Organism, which is held to account for the appearance of Mind. The tendency here has been to escape or to ignore the chasm, by making Mind commensurate with life, suggesting that "mind-stuff," or "soul-stuff," belongs to life in its germinal or protoplasmic form. In this hypothesis then is evidence of the difficulty of a monistic scheme. Sensibility and Motion are coextensive with life, but these are not equivalent to Intelligence, as they do not involve know-

ledge. The contrast between sensibility of the nerve-fibre and the interpretation of sensory impressions is vast. A philosophy of "mind-stuff" does not exist. Observation affords no warrant for the hypothesis, that "self-consciousness" belongs to all life.

Granting the existence of mind, as a distinct spiritual entity, having strictly spiritual functions, it exists in complete and constant unison with organic life. So much is a parallelism of function apparent, that there seems evidence favouring the conclusion that "the immediate condition of a state of consciousness is activity of some sort in the cerebral hemispheres,"—James, *Text-Book of Psychology*, 5,—but obscurity still hangs over the interpretation of this "condition."

MODE (*modus*, measure, standard, quantity).—Modification of form, quality, or relations of qualities, such as mark individuality within a species. A *mode* is variable, and does not affect the essence of the object.

Modes are secondary or subsidiary; variable conditions of existence. *Modification* is properly the bringing of a thing into a *mode*, but is used also to denote the *mode* of itself.

Spinoza distinguishes *mode* from *attribute*:—"By *attribute* I understand that which the mind perceives of substance as constituting its essence. By *mode* I understand the affections of substance, or that which is in something else, through which also it is conceived." *Ethics*, pt. i. defs. 4 and 5.

MOLECULE (*moles*, mass; *molecula*, a little mass).—Distinguished from *atom*, as the smallest particle of matter (elementary or compound) which can exist apart.

MOMENT.—A constituent point in the history of movement; an essential element in thought, such as "affirmation."

According to Hegel, there are three moments in all thought-movement. These are, affirmation, contradiction or difference, absorption. This is the trilogy of the Hegelian *Logic*, which regards the Dialectic movement of thought as the true philosophy of Being.

MONAD (*μονάς*, unity, one).—According to Leibnitz, the elementary particles of matter are vital forces, acting not mechanically, but from an internal principle. They develop from within, constituting a system by the agency of the Monad

Monadum. *Opera Philosophica*, Erdmann ; *Nov. Ess., Theod.* ; *Epist.* 30, p. 740 ; Translation of the *Monedology* in *Journal of Speculative Philos.*, 1867, edited by Harris, vol. i. p. 129 ; *Philosophical Works of Leibnitz*, translated by Duncan ; "Monadology," abridgment of the "Theodicy."

MONISM (*μόνος*, alone or single).—The unity of all being. This theory rejects the dualism of mind and matter, affirming either that there is nothing but Mind and its manifestations, or that there is nothing save Matter and its properties. Where the Theistic conception is a preliminary, the theory is Pantheistic, as in Spinoza and Hegel ; in the second form of the theory, it is non-Theistic. "The philosophical Unitarians or *Monists* reject the testimony of consciousness to the ultimate duality of the subject and object in perception, but they arrive at the unity of these in different ways. Some admit the testimony of consciousness to the equipoise of the mental and material phenomena, and do not attempt to reduce either mind to matter, or matter to mind," but "maintain that mind and matter are only phenomenal modifications of the same common substance." Hamilton, *Metaph.*, lect. xvi.

The monistic thought of the present day takes one of two forms: either the empirical formula of continuity of Energy, favoured by physical science ; or a monistic Idealism, as in Hegel, which regards all as the expression of the Idea, the manifestation of a spiritualistic movement, first in nature itself, and then in consciousness. For summary of the Hegelian theory of "the one Divine mind reproducing itself in the human soul," refer to Green's *Proleg. to Ethics*, 189, § 180. Compare Morris's Introduction to the Exposition of *Hegel's Philosophy of the State*, Griggs' "Philosophical Classics." "Jewish Mediæval Philosophy and Spinoza," Sorley, *Mind*, v. 362 ; Höffding's *Outlines of Psychol.*, p. 68.

MONOTHEISM (*μόνος*, alone ; *θεός*, God).—The belief that God is essentially one.

MORAL (*moralis*, pertaining to manners ; *mos*, custom).—The approved in practice ; the quality, good or bad, belonging to actions as tested by moral law. When, by abbreviation, we speak of "moral judgments" and "moral sentiments," we

mean judgments and sentiments concerned with right conduct. There is no use of the term "moral" apart from the recognition of universal law—a direct command—implying the necessity of an act. Our theory of the knowledge of such laws does not involve real diversity as to the significance and objective authority of the law itself.

MORAL FACULTY.—Conscience ; the power of mind by which we obtain our knowledge of moral law. The phrase belongs to Epistemology. It is not in any way concerned with the power of doing what the law requires. References to "Moral Faculty" are more common under Ethical Theories which regard moral law as the expression of universal truth. Butler's *Sermons* "On Human Nature." Such references are less frequent under theories which represent moral distinctions as inductions from experience. See, however, Bain, *Emotions and Will*, 283.

MORAL PHILOSOPHY.—Ethics ; the science of human duty ; the theory of moral life ; of personality as subject to moral law. It is the philosophy of our knowledge of moral law, of the application of such law to conduct, and of our relations as moral beings.

"*Morality* commences with, and begins in, the sacred distinction between thing and person. On this distinction all law, human and divine, is grounded." Coleridge, *Aids to Reflection*.

"Ancient Greek Philosophy was divided into three sciences : Physics, Ethics, and Logic." Ethics is "the science of the laws of freedom." "Ethics must also consider the conditions under which what ought to happen, frequently does not." Kant, Pref. to *Groundwork of the Metaphysics of Ethics*.

"In what is commonly known by the name of Moral Philosophy there are two sciences : one the science of Virtue (Archaics) ; the other, the science of Happiness (Eudaimonics). The two sciences need each other, and affect each other ; but they start from different points." John Grote, *Moral Ideals*, p. 1.

"We may call all philosophy *empirical*, so far as it is based on grounds of experience ; . . . that which delivers its doctrines from *a priori* principles alone, we may call *pure* philosophy." "In Ethics, the former may be named *practical Anthropology* ; the latter, *Morality*." Kant, *Groundwork*, Abbot's Tr., pref., 2.

With duty and happiness, Fichtè includes positive morality, communion with God, and the philosophic knowledge of God. The law of human freedom is the rule of rational law, placing us in relation with the Deity, so giving natural theology a place in moral science. Fichte, *System der Sittenlehre*.

“To show how the ethical universe is to be comprehended” is Hegel’s statement of his object, as given in the introduction to *Philosophie des Rechts*.

“From the dawn of philosophy, the question concerning the *summum bonum*, or, what is the same thing, concerning the foundation of morality, has been accounted the main problem in speculative thought.” J. S. Mill, *Utilitarianism*, p. 1.

“A Method of Ethics” may be explained to mean “any rational procedure by which we determine Right Conduct.” Sidgwick, *Method of Ethics*, p. 1.

In Moral Philosophy, schools of thought are divided according as knowledge of *moral law* is referred to insight of reason, or to induction from experience; and according as the *ethical end* is represented as fulfilment of ethical law, or the happiness or perfection of the agents.

The modern Rational School is represented by Kant, Reid, Stewart, Fichte, Hegel, Lotze, Bradley, Green, Porter, M’Cosh, Martineau. The Experiential School, by Hobbes, Bentham, J. S. Mill, Herbert Spencer, Bain, Sidgwick, Leslie Stephen.

Within the Rational School, Kantians and Hegelians occupy distinct positions as to the significance of Ethical law, and of free-will. The Neo-Kantian division of recent times leans more to Hegel than to Kant. For outlines, see Muirhead, *Elements of Ethics*.

Recent discussions.—Martineau, *Types of Ethical Theory*; Green, *Prolegomena to Ethics*. Criticisms of this work,—Ed. Caird, *Mind*, viii. 544; Sidgwick, *Mind*, ix. 169; “Green’s Metaph. of Knowledge,” A. J. Balfour, *Mind*, ix. 73, by same author, “The Philosophy of Ethics,” *Mind*, iii. 67; “Ethics and Politics,” Barratt, *Mind*, ii. 453; “Evolution of Morality,” J. Seth, *Mind*, xiii. 27. “Idiopsychological Ethics,” Sidgwick, *Mind*, xii. 31—criticism of Martineau. Lotze, *Practical Philosophy*, transl. by Ladd; art. on Value, Alexander, *Mind*, n.s. I. 31.

MORAL SENSE.—A designation of the moral faculty, when its functions are interpreted by analogy of the special senses. Such usage belongs to a transition period in British Ethics. Shaftesbury, *Inquiry concerning Virtue*, 1711, as in *The Characteristics*; Hutcheson, *Inquiry and System of Moral Philosophy*; Kant's objection to such representations, *Ethics*, Abbot, 3rd ed., 128, 213.

Later usage employs the phrase to indicate moral sentiment, awakened by self-criticism, under application of moral law, as reverence for law, and self-approbation or self-condemnation. While law is constant, sentiment is variable, depending on individual reflection.

MORPHOLOGY (*μορφή*, form; *λόγος*, science).—The science of organic form. Haeckel, *Gen. Morph.*, i., Introd.; Spencer, *Principles of Biology*, i. Article "Morphology," P. Geddes, in *Encyclopædia Britannica* (9th ed.).

MOTIVE (*moveo*, to move).—Mental impulse or internal spring of action, whether desire, affection, or passion. Motor excitation belongs to organic life; Motive is impulse within. Physical appetite has its motive power in consciousness. The word *principle*, as signifying the origin of action, is often used as synonymous with motive. Simultaneous action of a variety of motives may supply a combination of motive force.

"By *motive* I mean the whole of that which moves, excites, or invites the mind to volition, whether that be one thing singly, or many things conjunctly. Many particular things may concur and unite their strength to induce the mind; and when it is so, all together are, as it were, one complex *motive*. . . . Whatever is a *motive*, in this sense, must be something that is *extant in the view or apprehension of the understanding, or perceiving faculty*. Nothing can induce or invite the mind to will or act anything, any further than it is perceived, or is in some way or other in the mind's view." Edwards, *On the Will*, pt. i. sec. 2.

As to the Ethical Motive, Kant says:—"Whatever is deduced from the particular natural characteristics of humanity, from certain feelings and propensions, . . . may indeed supply us with a *subjective* principle on which we may have a propension and inclination to act, but not with an *objective* principle on

which we should be *enjoined* to act, even though all our propensions, inclinations, and natural dispositions were opposed to it." *Groundwork*, ch. ii. ; Kant's *Theory of Ethics*, Abbot, 3rd ed., p. 43. Hence Kant's distinction between "pathological" and "rational," in the history of impulse.

Conflict of motives is a familiar occurrence. Variety may involve contrariety, rendering combination impossible, and conflict inevitable. Conflict arises first from the complexity of our nature, and the spontaneity of impulse under laws of sensibility, and of association ; and further, from exercise of will-power in regulation of the motive forces, involving restraint, in order to guidance. Voluntary regulation of conduct, implies choice between motives,—development of one, restriction of another. Our motives in their first appearance are spontaneous ; in their subsequent action are voluntarily determined.

Green, admitting diversity of desires and aversions in consciousness, reasons on the Hegelian basis in favour of "self-realisation" as the end of action, and makes regard to this the *sole* motive. "The motive necessarily involved in the act of will, is not one of the mere desires or aversions. . . . It is constituted by the reaction of the man's self upon these, and its identification of itself with one of them, as that by which the satisfaction forms for the time its object." Green, *Prolegomena to Ethics*, p. 108 ; see also Bradley, *Ethical Studies*.

"The first point to start from, in understanding voluntary action, and the possible occurrence of it with no fiat or express resolve, is the fact that consciousness is in its very nature impulsive." James, *Principles of Psychol.*, ii. 526.

What is required here is a clear distinction between mere motor activity and voluntary action. The latter is that which is the product of an act of Will ;—exclusively action which is the result of "express resolve."

"All the stimuli to voluntary consciousness may be gathered under a single term, *i.e.*, *Motive*, which shall denote any influence whatever, which tends to bring about voluntary action." Baldwin, *Elements of Psychology*, p. 338.

All influences, whether physical or mental, which coming in upon consciousness, move the mind *prior* to volition, must be

combined in the motive ; but there is need to guard the phrase "tends to bring about voluntary action." It means no more than "quickens interest,"—it does not express causality in volition. *International Jour. of Ethics*, iv. 89 and 229.

MOTOR REGION, called also the "Motor Zone."—That portion of the brain in which are localised the centres from which muscular movement is effected. All these are massed together in the centre of the organ, where are localised organic stimuli, and efferent apparatus, for bringing into use the limbs, and more widely the general muscular system. In the early stages of experiment, it became the practice to describe a circle over the region from which response was found in muscular apparatus. Prolonged experiment has shown that this function may be participated in by two collateral convolutions. Though no response is found by application of the electrode in the hollow, it is obtained when excitation is applied on the eminence of neighbouring convolutions. The great central region, both on the outer surface of the hemisphere, and the inner or concealed side, where the hemispheres lie in close relation, being appropriated to motor action, the front region and the back region of the brain are silent, giving no response in muscular movement to electric excitation, so suggesting that these are sensory centres. See illustrations in Ferrier's *Localisation* ; Calderwood, *Mind and Brain* ; James, *Text-Book of Psychology*.

MUSCULAR SENSE.—Sensibility in consciousness dependent on expansion and contraction of the muscles in motor activity. Voluntary use of the muscular system makes experiment possible on the whole series of feelings of innervation.

Wundt, *Grundzüge der Physiologischen Psychologie*, i. 399 ; Münsterberg, *Beiträge zur exper. Psychologie* ; Carpenter, *Mental Physiology* ; Sully, *Human Mind*, i. 122 ; James, *Principles of Psychol.*, i. 61, ii. 189 ; Dewey, *Psychol.*, 56 ; Davis, *Elements of Psychol.*, 20 ; Croom Robertson, "Munsterberg on Muscular Sense," *Mind*, xv. 524.

MYSTICISM (μύω, to shut up ; μνέω, to initiate ; μύστικός, secret ; pertaining to μυστήρια, mysteries, or secret doctrines).—The term includes philosophical speculation which breaks away from the tests of observation and experience, relying on special

exaltation of the spirit, connected with personal abstraction, concentration of attention, or divine afflatus. It recognises the attractions of an intelligible world, purely spiritual in character, and is allured by all speculation which the reality of such a world suggests.

Mysticism appears in the eastern religious systems of Brahminism and Buddhism ; in Greek philosophy, in Neo-Platonism. In the Middle Ages the tendency is seen in Bernard of Clairvaux. In modern times Germany has been the chief home of Mysticism, under the leadership of Eckhart, Tauler, and, later, Jacob Boehme.

“Mysticism has this in common with the true science of reason,—it does not recognise the conceptions of mere sensuous experience as the highest, but strives to raise itself above all experience.” Fichte, *Characteristics of the Age*, lect. viii. “In the firm reliance on the world of thought as the highest and most excellent, the science of reason and mysticism are completely at one.” *Ib.*

“*Mysticism* in philosophy is the belief that God may be known face to face, without anything intermediate. It is a yielding to the sentiment awakened by the idea of the infinite, and a running up of all knowledge and all duty to the contemplation and love of him. Cousin, *History of Modern Philosophy*, 1st series, vol. ii. lects. ix. x.

“Whether in the Vedas, in the Platonists, or in the Hegelians, *mysticism* is neither more nor less than ascribing objective existence to the subjective creations of our own faculties, to ideas or feelings of the mind ; and believing that by watching and contemplating these ideas of its own making, it can read in them what takes place in the world without.” Mill, *Logic*, bk. v. ch. iii. sec. 4.

Joh. Bapt. van Helmont, *Febrium Doctrina Inaudita*, 1642 ; *The Epistles of Jacob Boehme*, London, 1649 ; Glasgow, 1886 ; Jo. Pordage, *Mystic Divinitie*, 1688 ; Pierre Poiret, *Economie Divine*, 1680 ; *Theologie réelle*, 1700.

Cousin, *History of Modern Philosophy*, ii. 94–97 ; Schmidt (Car.), *Essai sur le Mystiques de Quatorzième siècle*, Strasburg, 1836. Mysticism as connected with Scholasticism, Ueberweg's

Hist. (Morris), i. 356; with German thought, *ib.*, i. 467–470, and ii. 20; Jacob Boehme, Schwegler's *Hist.* (Stirling), 8th ed., p. 153; *Jacob Boehme*, Martensen; for Hegel's account of Jacob Boehme, extracted from his *History of Philos.*, *Journal of Speculation Philos.*, 1879, vol. xiii. 269; Vaughan's *Hours with the Mystics*; art. "Mysticism," *Ency. Brit.*, 9th ed.

MYTH ($\mu\upsilon\theta\omicron\varsigma$, a tale, or fictitious narrative) is a narrative framed for expounding and illustrating some general truth, or phase of virtue.

Plato has introduced the *myth* into several of his dialogues into the *Protagoras*, *Gorgias*, *Republic*, and *Timæus*. Thus, in the *Protagoras*, 322, the venerable Sophist is represented as showing that virtue is the gift of the gods, by means of the myth narrating how Zeus sent Hermes to men with the gifts of justice and reverence. In the *Republic*, vii. 514, we have illustration of the limits of our knowledge, and of the need for liberation of the soul by philosophy, supplied by the imagery of prisoners in a cave. In the *Phædrus*, 246, control of the passions is depicted under the representation of a charioteer driving a pair of winged horses.

On the use of myth, Cousin, *Hist. of Philos.*, lects. 1, 15; Grote, *History of Greece*, i. 400; Ueberweg, *History of Philosophy*, i. 121; Tylor, *Primitive Culture*; Lang, *Custom and Myth*; Max Müller, *Science of Religion*.

NATURAL (The).—That which belongs to the established order of the cosmos. This includes all that belongs to the constitution of the Universe, with all that results from the activity of life within it. Modern biology correctly places Man within the sphere of the natural. The influence of Man on the natural history of species becomes a prominent feature for the interpretation of the world.

NATURALISM.—A theory which explains occurrences by the forces of Nature alone, maintaining that Nature carries within itself its own explanation.

Naturalism is opposed not only to Supernaturalism, but also to *Transcendentalism* or *Idealism*.

Herbert Spencer's Theory is essentially a naturalistic one, notwithstanding his acknowledgment of the Unknowable as the

source of all. Naturalism in Ethics seeks the interpretation of the moral consciousness by reference to impulse and inclination, with the superadded advantage of intelligence capable of calculating the probable quantity of pleasure attainable by human effort. Sorley, *Ethics of Naturalism*.

NATURAL LAW.—In the physical sense, a fixed order of events in the universe, known by induction from uniform sequence. In the juridical sense, a law of conduct recognised by the common intelligence, prior to judicial enactments.

Selden, *De Jure Naturali*, lib. i. cap. iii. ; Grotius, *De Jure Belli et Pacis*, Prolegom., secs. 5, 6, lib. i. cap. i. sec. 10 ; Hobbes, *Leviathan* ; Puffendorff, *De Officio Hominis et Civis*, lib. iii. cap. iii. ; Sanderson, *De Oblig. Conscientiæ*, Prælect. Quarta, secs. 20–24 ; Tyrell, *On Law of Nature* ; Culverwell, *Discourse on the Light of Nature* ; Lorimer, *Institutes of Law* ; Maine's *Ancient Law*, ch. iii. and iv.

NATURE.—The cosmos, the entire system of existence in the midst of which we find ourselves. The Universe as a totality.

The term is sometimes used to describe the material universe, as in contrast with mind, or with the spiritual world.

Recent advances in biological science lead to the inclusion of human life with all life besides. The consequence in terminology must be the abandonment of the contrast between Man and Nature in philosophic, as well as in scientific reasoning.

Nothing can, however, obscure the distinction between knowing and being. Nature, as the existing, must stand as object ; mind, the knowing power, as subject. Mind, even as subject, has, however, its place within objective existence, contemplated as Nature.

On this account, a philosophy of Nature is a mind product, not a "Nature" product ; the antithesis returns upon us as a condition of philosophy. "Naturphilosophie" is apt to be Physics proper. On the other hand, all philosophy is an interpretation of the conditions of knowledge.

Spencer's view, *First Principles*, part ii. ch. iii. Spinoza made use of the scholastic distinction between *Natura naturans*, and *Natura naturata*. In scholastic philosophy, these phrases

represented respectively the First Cause, and created things. Spinoza, holding that there is but one substance, used *Natura naturans* to indicate the essential attributes of God; *Natura naturata*, the modes of these attributes as manifested in the Universe.

“Nature considered *materialiter* is the sum-total of all the objects of experience.” Kant, *Proleg.*, § 16. As to “subjective purposiveness in Nature,” Kant, *Critik of Judgment*, translated by Bernard, p. 259.

According to Hegel, Nature is the Idea (the Source of Being) in the form of otherness, or externality to itself. “Nature is spirit in alienation from itself.”

“There is no possibility of explaining Nature apart from spirit if spirit is more than merely a part of nature on a level with the other parts, or if there is anything in it that goes beyond the limits of what is in them.” E. Caird, *Philosophy of Kant*, i. 33.

NECESSARY TRUTH.—The universal,—of the essence of truth,—self-evidently true, as opposed to the particular and contingent. Truth independent of occurrence, yet regulative of thought. General truth, whose contrary cannot be thought, and which in our recognition of it is independent of induction.

Locke, notwithstanding his polemic against “innate ideas,” has no difficulty in recognising “eternal verities.” He says there are “two sorts of propositions,” the one concerned with “knowledge of particulars”; the other “may be universal and certain.” In the latter, “knowledge is the consequence of the ideas that are in our minds producing their general certain propositions. Many of these are called *æternæ veritates*. . . . Wheresoever we can suppose such a creature as man is, endowed with such faculties, and thereby furnished with such ideas as we have, we must conclude he must needs, when he applies his thoughts to the consideration of his ideas, know the truth of certain propositions, that will arise from the agreement or disagreement which he will perceive in his own ideas. Such propositions are called *Eternal Truths*.” Locke, *Essay*, bk. iv. c. xi. § 14. “The truths of mathematics and morality are certain, whether men make true mathematical figures, or

suit their actions to the rules of morality or no." See Fraser, *Locke*, 69.

"The proof of the *necessity* of certain ideas has never been supposed . . . to rest upon the fact that every one was aware of having them." Green, *Prolegomena to Ethics*, 18.

"There is no denying the fact that the mind is filled with necessary and eternal relations which it finds between certain of its ideal conceptions, and which form a determinate system, independent of the order and frequency in which experience may have associated the conception's originals in time and space." James, *Principles of Psychology*, vol. ii. 661.

Cousin, *True, Beautiful, and Good*, part i. lects. 1, 2, 3 ; M'Cosh, *Intuitions*, part i. c. 2 ; *First and Fundamental Truths*, part i. c. 1, 2, 3. "On some kinds of necessary truth," Leslie Stephen, *Mind*, xiii. 50, xiv. 188.

NECESSITARIANISM.—The doctrine that volitions follow by invariable sequence from internal causes, just as events in the material universe follow by fixed natural law ; that volition is an example of "causation by character and circumstances" ; and, as character is determined by circumstances, man is determined *ab extra*.

"By *moral necessity* is meant that necessity of connection and consequence which arises from such *moral causes* as the strength of inclination, or motives, and the connection which there is in many cases between them, and such certain volitions and actions." Edwards, *The Will*, pt. i. sec. 4 ; *Works*, i. 116.

Spinoza, letter 62 ; *Ethics*, pt. prop. 355 ; Hobbes, *Leviathan*, i. 6 ; Spencer, *Data of Ethics*, 113 ; Hamilton, *Reid's Works*, 87, note ; Bradley, *Ethical Studies*, p. 13 ; Sidgwick, *Method of Ethics*, 61 ; Leslie Stephen, *Science of Ethics*, ch. vii. iv. 2.

J. S. Mill regards the word Determinism as preferable to Necessitarianism. "A volition is a moral effect which follows the corresponding moral causes as certainly and invariably as physical effects follow their physical causes. Whether it *must* do so, I acknowledge myself to be entirely ignorant, be the phenomena moral or physical ; and I condemn accordingly the word *necessity* as applied to either case. All that I know is that it always *does*." Mill, *Examination of Hamilton*, 562.

NEGATION (*nego*, to deny).—The characteristic of a judgment which denies either the truth of a proposition, or the existence of an object. Like Affirmation, it is characteristic of Judgment.

Simple apprehension is direct knowledge, where no room is left for denial ; the process of judgment is that which admits of affirmation and negation.

Strictly speaking, there are no purely negative ideas, notions, or conceptions.

NEO-PLATONISM.—The latest phase of ancient philosophy, partaking largely of religious Mysticism, developed in the early centuries of the Christian Era. It was idealistic, concentrating on the ideal scheme of Plato, mainly on its practical side. *Neo-Platonism* regarded itself as a return upon Plato, but was in reality a departure from his philosophic standpoint. It abandoned the problem of existence as one of pure thought, attempting to reach a solution in mystic experience, called *Ecstasy*. This involved surrender of the distinction between subject and object, and loss of self-consciousness in union with God. God is the one, not only above the world, but above reason ; neither Reason, nor an object of our cognition. The world is conceived as an *Emanation* from God. The Ethical teaching of Neo-Platonism is ascetic, advocating the duty of gradual emancipation from matter, and pointing to final absorption in the Divine. Its chief representatives are Plotinus, A.D. 204–269, educated at Alexandria, taught at Rome ; Porphyry, born A.D. 232, educated at Tyre, taught at Rome, where he died about A.D. 304. Jamblicus, a pupil of Porphyry, became an avowed upholder of polytheistic belief, against Christianity. Proclus, A.D. 412–485, led a reaction against mysticism, and a return upon philosophic methods. Schwegler, *History of Philosophy*, pp. 138, 143 ; Ueberweg, *History of Philosophy*, vol. i. 240.

Cudworth's *Intellectual System*, bk. i. ch. 4 ; Harrison, vol. ii. p. 141 and p. 315.

NIHILISM (*nihil*, nothing).—(1) The extreme of *Scepticism*,—denial of all existence ; (2) The extreme of Socialism,—the negation of social differences. “Hume and Fichte have

completely shown, that if the thought of consciousness be not unconditionally recognised, Nihilism is the conclusion in which our speculation, if consistent with itself, must end." Hamilton, *Reid's Works*, note A, p. 748.

As a *Social theory*, Nihilism is an extreme form of *Socialism*. Its creed is, in theory and in practice, the necessity of levelling all social distinctions, abolishing property, and all established institutions.

NOMINALISM (*nomen*, a name).—The scholastic doctrine that general notions have no objective realities corresponding to them, and have no existence but as names or words. The doctrine directly opposed, is *Realism*. The controversy belongs to the eleventh century. *Conceptualism* is closely allied to nominalism, maintaining the logical reality of the general notion, while denying its external reality. "If nominalism sets out from conceptualism, conceptualism should terminate in nominalism." Cousin, *Introd. aux Ouvrages inédits d'Abailaird*.

Universalis ante rem, is the watchword of the *Realists*; *Universalis in re*, of the *Conceptualists*; *Universalis post rem*, of the *Nominalists*.

Roscellinus, the leader of *Nominalism*, in the 11th century applied it to the doctrine of the Trinity, and was opposed by Anselm. Nominalism was revived in the 14th century by William of Occam. Cf. art. by Seth, *Ency. Brit.*, 9th ed.

NORM (*norma*, a square or rule of builders).—A law of existence; the fixed type of an order of beings. Anything in accordance with law is said to be *normal*; that which is not in accordance with law, *abnormal*.

NOTION (*nosco*; to know, *Begriff*).—The recognition of a general truth. "Notion" and "Conception" are often made interchangeable. "Notion" is best reserved for the recognition of an abstract truth; "Conception" for the general representation of individual forms of existence, such as tree, river, mountain. The search of Socrates was for the true definition of Justice, Piety, and Temperance, etc., showing how thought rests on general notions.

There is large variety in use of the term Notion, following upon the use of "*idea*" for perception, or the product of observation.

“Complex ideas” are called *notions*, as they had their original and constant existence more in the thoughts of men than in the reality of things. Locke, *Essay*, bk. ii. ch. xxii. sec. 2.

“Berkeley distinguishes carefully between ‘Notion’ and ‘Idea.’ His *idea* is equivalent to the genus *Vorstellung* (object of sense or imagination); his *notion* is an intelligent apprehension of Mind, and of relations among phenomena.” Fraser, *Selections*, p. 57, note.

“The distinction of *ideas*, strictly so called, and *notions* is one of the most common and important in the philosophy of mind. Nor do we owe it, as has been asserted, to Berkeley. It was virtually taken by Descartes and the Cartesians, in their discrimination of ideas of imagination, and ideas of intelligence; it was in terms vindicated against Locke, by Serjeant, Stillingfleet, Norris, Z. Mayne, Bishop Brown, and others. Bonnet signalled it; and under the contrast of *Anschaunngen* and *Begriffe*, it has long been an established and classical discrimination with the philosophers of Germany. Nay, Reid himself suggests it in the distinction he requires between *imagination* and *conception*,—a distinction which he unfortunately did not carry out, and which Mr Stewart still more unhappily again perverted. The terms *notion* and *conception* (or more correctly *concept* in this sense) should be reserved to express what we comprehend but cannot picture in *imagination*, such as a relation, a general term, etc.” Hamilton, *Reid's Works*, p. 291, note.

NOTIONES COMMUNES, also called *prænotiones*, *anticipationes*, *communes notitiæ*, *πολήψεις*, *κοινὰ ἔννοιαι*,—*first truths*, *principles of common sense*. All these are phrases employed to denote *notions* or cognitions native to the human mind, which are intuitively discerned, being clear and manifest in their own light, and needing no proof, but forming the ground of truth and evidence as to other truths.

NOUMENON (*νοέω*, to perceive).—The thing in itself, the object to which the qualities recognised by us belong. In the philosophy of Kant, *Noumenon* is an object in itself, not relatively to us. According to him, we have no knowledge of

things in themselves. Besides the impressions which things make on us, there is nothing in us but the forms of intelligence.

According to Kant, "The undetermined object of an empirical intuition is called *phenomenon*." *Pure Reason*, part i. § 1.

"The conception of a *noumenon*, that is, of a thing which must be cogitated, not as an object of sense, but as a thing in itself, solely through the pure understanding, is not self-contradictory, for we are not entitled to maintain that sensibility is the only possible mode of intuition. . . . Things in themselves, which lie beyond the province of sensuous cognition, are called *noumena*, for the very purpose of indicating that this cognition does not extend its application to all that the understanding thinks." *Pure Reason*, Meiklejohn's Tr., pp. 186-187. See also p. xxxiii, pref. to 2nd ed.

"A phenomenal world implies a noumenal, and the assumption of such is absolutely necessary in order duly to subordinate and limit the pretensions of sense. It does not follow, nevertheless, that its phenomenal nature attaches any character of uselessness and meaninglessness to this, the world of time, which we, in time, inhabit. Here, as evidence from every side assures us, existence is but probationary. . . . Under *reason* we shall discover those relations to the necessary unconditioned, that round and complete our world as an object of intellect. Our *practical critique*, again, will introduce us to the veritable noumenal world; while our inquiry into *judgment* will mediate and justify transition from the one world to the other." Hutchison Stirling, *Text-Book to Kant*, p. 110.—See Adamson's *Philosophy of Kant*, lect. iii.

NUMBER (*numerus*).—The expression of relations in series. This was held by the Pythagoreans to be the ultimate principle of being. This view exercised a wide influence on ancient speculation. As the spirit of philosophy prevailed, *numbers* were transferred to a separate science. Ritter's *Hist. of Ancient Philos.*, bk. iv.; Lotze, *Logic*, 192. On the philosophy of Pythagoras, Burnet, *Early Greek Philosophy*, p. 89.

"Number seems to signify primarily the strokes of our attention in discriminating things. These strokes remain in the memory in groups, large or small, and the groups can be com-

pared. . . . Little by little in our minds, the number-series is formed. This, like all lists of terms in which there is a direction of serial increase, carries with it the sense of those mediate relations between its terms, which we expressed by the axiom, 'the more than the more, is more than the less.'” James, *Prin. of Psychol.*, ii. 653. Mode of knowing number, Sully, *Human Mind*, i. 225, 253, 360, 429. The judgment of number and measurement, Bradley, *Principles of Logic*, p. 172; Bosanquet, *Knowledge and Reality*, p. 59.

OBJECT, OBJECTIVE (*objicio*, to throw over against, or lay over against).—“Otherness,” distinctness of being from the conscious observer, or from the act of observation. *Object* and *subject* are, etymologically, opposites and correlatives. In logic, object, ἀντικείμενον (ἀντίκειμαι, to lie opposite to) was that which was the opposite to another thing, *oppositum*. In Psychology the significance of the correlative terms has varied according to the changing forms of the theory of knowledge.

According to the theory which makes a representative “idea” the thing known, or object of attention, all that belongs to such “idea” is objective, whereas the external existence is regarded as the subject of consideration. That existing externally, is the “substance” or “subject.”

Under a theory of immediate knowledge, the object is the thing known, as distinguished from the mind which knows; the separate reality, the existence as apart from the knower. “Objective” here signifies, pertaining to the object known; whereas “subjective” means pertaining to the mind. This is the accepted usage now.

Objective has thus come to mean that which has independent existence or authority, apart from our experience or thought. Hence moral law is said to have *objective authority*; that is, authority belonging to itself, and not drawn from anything in our nature, whether feeling or thought.

In the Middle Ages, *subject* meant *substance*, and this sense is preserved in Descartes and Spinoza, sometimes even in Reid. By William of Occam, *e.g.*, *objective* applies to that which the mind produces; viz., the idea, image, or representation of an object, as opposed to the real object existing independently.

This is the *realitas objectiva* of Descartes, *Med.*, 3 ; Veitch's *Descartes*, note iii.

Present usage is due chiefly to the influence of Kant, who, holding that the object known must conform to the constitution of the knowing subject, set himself to the analysis of the relations between the *objective* and the *subjective* in knowledge. Preface to 2nd ed. *Pure Reason*, p. xxviii, Meiklejohn's Transl. Knowledge itself has thus a subjective side and an objective.

OBLIGATION (*obligo*, to bind).—Personal subjection to the authority of law ; oughtness ; duty ; the fixed relation of moral life to moral law and to the moral Governor ; a definite phase or measure of this subjection, in view of circumstances ; a requirement under authority of civil law.

Obligation is the uniform characteristic of moral life, which as rational represents to itself the law of conduct, and has the power to regulate motive force accordingly. "Duty is the necessity of an act out of reverence felt for law." Kant, *Groundwork of the Metaph. of Ethics*, c. 1. The moral law is a "Categorical Imperative," which declares an action to be necessary in itself, without reference to any purpose, or end beyond the act itself. Every act has its own particular end ; but, above this, is the end which ethical law requires, namely, its own fulfilment.

This obligation of the conscious intelligence to fulfil ethical law is implied in every ethical theory.

Hegel, while representing moral life as "realised personality," maintained individual obligation for attainment of this, and for sustaining others in their effort to this end. "By a moral ideal we mean some type of man, or character, or personal activity considered as an end in itself." Green's *Prolegomena to Ethics*, p. 205.

Under a utilitarian theory, it is held that to seek the greatest happiness of the greatest number is the duty of all men alike. Hence the need for Mill's question :—"Why am I bound to promote the general happiness?" To this, his answer is :—"This difficulty will always present itself, until the influences which form moral character have taken the same hold of the principle which they have taken of some of the consequences."

Mill's *Utilitarianism*, p. 40. Bain makes obligation refer "to the class of actions enforced by the sanction of punishment." *Emotions and Will*, 3rd ed., p. 264. See also Sully, *Human Mind*, ii. 156.

"Ethics is the study of what ought to be," p. xv. "A method of Ethics is any rational procedure by which we determine right conduct," p. 1. "We shall have to use the received notions of Duty without further definition or analysis . . . as they are found in the moral consciousness of ordinary well-meaning persons," and commonly assumed to be "at least approximately valid and trustworthy," p. 160. Sidgwick, *Methods of Ethics*, 3rd ed.

OCCASIONAL CAUSES (Doctrine of).—The phrase "Occasional Causes" was employed by the Cartesians to explain the mode of communication between mind and matter. The soul being a thinking substance, and extension being the essence of body, they are heterogeneous, and it is supposed that no intercourse can take place between them without the intervention of the First Cause. The Deity himself, therefore, on the *occasion* of certain modifications in our minds, excites the corresponding movements of body; and, on the *occasion* of certain changes in our body, awakens the corresponding feelings in the mind. This theory, only implied in the philosophy of Descartes, was fully developed by Geulinx, and Malebranche. Malebranche's *doctrine* is commonly called the "vision of all things in God,"—who is the "light of all our seeing,"—the place of spirits. Descartes, *Principia*, pars ii. sec. 36; Malebranche, *Recherche de la Vérité*, vi. 2, 3; Hamilton's *Lectures on Metaphysics*, lect. xvi. i. 300. Leibnitz, in upholding "pre-established harmony," criticised the Cartesian doctrine, referring for illustration to the possible methods of securing constant agreement between two clocks. Leibnitz, *Opera Philosophica*, Erdmann, 133.

OLFACTORY NERVES.—"The upper portion of the nasal passage is covered by a soft mucous membrane, on the surface of which are numerous olfactory cells, which constitute the terminal organ of the olfactory nerve. . . . The olfactory nerve fibres are spread out over the membrane in elaborate

ramifications, and come into close relation to the olfactory cells. These fibres are gathered together in a series of bundles, . . . which terminate in a bulb at the base of the brain." Calderwood, *Mind and Brain*, p. 59.

ONTOLOGY (ὄν, being; and λόγος, science).—The science of Being,—Metaphysics proper,—dealing with the problems which transcend our inquiry as to distinct orders of existence within the world. It is concerned with a theory of Being as such. Ontology has been generally used as a name for Metaphysics, as distinguished from Psychology and Epistemology.

Aristotle defines the *philosophia prima* as ἐπιστήμη τοῦ ὄντος ἢ ὄντος—*Scientia Entis quatenus Entis*,—the science of the essence of things; the science of the attributes and conditions of Being in general. Aristotle's *Metaphysics*. Modern philosophy approaches the problem of Being through that of Knowledge. Epistemology affords the basis for Ontology.

Wolff (1679–1754), in claiming for Philosophy the whole field of knowledge, placed Ontology in a conspicuous position as the crowning feature;—ontology, rational psychology, rational cosmology, and rational theology. Ontology he regarded as occupied with the general notions which lie at the basis of all philosophising. Kant accepts this terminology. *Pure Reason*, Meiklejohn's transl., 512.

Referring to the persistence of metaphysical speculation, Lotze has said,—“When we try to weigh the amount of tenable result which has been won from such protracted labour, we are justified in beginning with that which is first in the order of things, though not in the order of our knowledge; I mean with Ontology, which, as a doctrine of the being and relations of all reality, had precedence given to it over Cosmology and Psychology—the two branches of inquiry which follow the reality into its opposite distinctive forms.” Lotze, *Metaphysics*, p. 20, Eng. Transl.

For the Ontological argument for the being of God, as developed by Anselm and by Descartes, see Ueberweg's *History of Philosophy*, i. 378, ii. 42.

OPINION (*opino*, to think).—Unverified thought.

Plato defines Opinion as acquaintance with the surface of

things, knowledge of particular forms and occurrences, without knowledge of their causes. "Those who see the many beautiful things, and who yet neither see absolute beauty, nor can follow any guide who points the way thither, . . . such persons may be said to have opinion, but not knowledge." *Republic*, v. 479, Jowett. Hence the subordinate worth even of *true* opinions. "Do you not know that all mere opinions are bad, and the best of them blind? You would not deny that those who have any true notion without intelligence are only like blind men who feel their way along the road?" *Ib.*, vi. 506.

Locke defines *Opinion* as "the admitting or receiving any proposition for true, without certain knowledge that it is so." *Essay*, bk. iv. ch. xv. sec. 3.

"*Opinion* is a consciously insufficient judgment, subjectively as well as objectively." Kant, *Pure Reason*, p. 498, Meiklejohn's Tr.

"The essential idea of *opinion* seems to be that it is a matter about which doubt can reasonably exist, as to which two persons can without absurdity think differently. . . . Any proposition, the contrary of which can be maintained with probability, is matter of opinion." G. C. Lewis, *Essay on Opinion*.

OPPOSITION (in Logic).—"Two propositions are said to be *opposed* to each other when, having the same subject and predicate, they differ in *quantity*, or *quality*, or *both*. It is evident that, with any given subject and predicate, you may state four distinct propositions, viz., A, E, I, and O; any two of which are said to be *opposed*; hence there are four different kinds of *opposition*, viz., 1st, the two universals (A and E) are called *contraries* to each other; 2nd, the two particular (I and O), *subcontraries*; 3rd, A and I, or E and O, *subalterns*; 4th, A and O, or E and I, *contradictories*." Whately, *Logic*, bk. ii. ch. ii. sec. 3.

OPTIC NERVES.—The pair of nerves passing from the organs of vision to the brain almost immediately opposite the lens of the eyeball. At the rear of the vitreous body is the "dark spot," or yellow spot, so coloured from the presence of pigment in the anterior layers. "On the inner side of this

yellow spot the optic nerve enters the retina, and thence distributes its fibres towards the front border." Calderwood, *Mind and Brain*, 62. Light-impressions are made on this sensitive surface.

OPTIMISM (*optimum*, best).—The doctrine that the universe, as existing, is the best in its system and order that could be created. The optimist does not hold that the present state of things brings the best possible results to individuals, or to classes of beings; but that, under a system of fixed law, steady progress is secured towards the highest attainable results.

Leibnitz is the most distinguished modern philosopher who has maintained that this is the best of all possible worlds. In accordance with his theory of "pre-established harmony" between soul and body, he passes to view the universe as a whole, as a perfect harmony,—an expression of the perfection of the Deity, the embodiment of the Divine Ideas. *Théodicée*. If evil be inevitable, the progress manifest in the world's history is movement towards a spiritual perfection.

ORDER.—Intelligent arrangement of objects, or of means to ends, or of parts to the whole. *Unam post aliam*. In the widest sense, the system of things existing in the universe.

ORGANISM.—The material structure of vital existence, organised being. "An organised product of nature is that in which all the parts are mutually ends and means" (Kant).

"The apparatus of Organic Life, serves in the first instance to construct or build up the apparatus of animal life, and then to maintain it in working order." Carpenter, *Mental Physiology*, p. 30.

ORGANON, or **ORGANUM** (*ὄργανον*, an instrument). The name is applied to Aristotle's treatises on logic. By the Peripatetics, logic was regarded as the instrument of science.

The *Organon* of Aristotle consists of the following treatises:—The *Categories*, the *De Interpretatione*, the *Analytics*, *Prior and Posterior*, the *Topics*, and the *Sophistical Fallacies*. Bacon gave the name of *Novum Organum* to the second part of his *Instauratio Magna*.

"The *Organon* of Aristotle and the *Organum* of Bacon stand in relation, but the relation of contrariety: the one considers

the laws under which the subject thinks, the other the laws under which the object is to be known." Hamilton, *Reid's Works*, p. 711, note 2.

ORIGIN (*origo*, that by which occurrence is produced).—Beginning; the source of being; the efficient power from whose action comes any existence, or series of occurrences.

ORIGIN OF SPECIES.—*Vide* EVOLUTION.

OUGHTNESS.—*Vide* OBLIGATION.

OUTNESS.—*Vide* EXTERNALITY.

PAIN.—Suffering; disturbed or distressed experience consequent on physical injury; in rational life, sense of wrong.

Pain has its physical basis in the structure of the sensory nerve. The contrast between contact, awakening sensation; and stroke, or shock, illustrates the contrast between the agreeable and the painful in experience. Sensibility, which is the condition of knowledge, is at the same time possibility of suffering. This law extends through all vital processes in all organic life. From the physical basis, we are led to the adjustments which secure increased duration of life, or increased amount of life. By contrast, disturbance or frustration of these, leads to diminution of life's value, or destruction of life. Herbert Spencer, *Principles of Biology*.

As organism becomes complicated, the possibilities of pain become extended and intensified, either by extension of the area of possible injury, or by disintegration of what is in organic combination. "Pain arises whenever an established nervous co-ordination—in other words, a natural or habitual grouping of fibrils—is in act disintegrated." Cycles, *Human Experience*, 55.

From the physical, the law passes over to the conscious life. According as we *think* of things, so do we experience pleasure or pain. If we do what we judge to be wrong, we endure the pain of self-reproach; if we are wronged by another, we are pained at the loss endured, or the injury done, and at the disposition manifested, and we feel resentment against the agent. In this way, pain experienced, or, more strictly, the resentment awakened, becomes an impulse to action.

"Objects and thoughts of objects start our action, but the pleasures and pains which action brings modify its course and

regulate it; and later the *thoughts* of the pleasures and the pains acquire themselves impulsive and inhibitive power. . . . Present pains are tremendous inhibitors of whatever action leads to them." James, *Principles of Psychology*, ii. 549.

"The physiology of pain is still an enigma. . . . It is certain that sensations, of every order, which in moderate degrees are rather pleasant than otherwise, become painful when their intensity grows strong." James, *Text-Book of Psychol.*, 67.

PANGENESIS.—A hypothesis as to the mode in which the law of heredity is to be interpreted. "According to this hypothesis, every unit or cell of the body throws off gemmules or undeveloped atoms, which are transmitted to the offspring of both sexes, and are multiplied by self-division." Darwin, *Descent of Man*, 228. This is the hypothesis Darwin accepted. Turner, "Cell Theory, Past and Present," *Nature*, vol. xl.; Calderwood, *Evolution and Man's Place in Nature*, p. 95.

PANTHEISM (πᾶς, all; τὸ πᾶν; θεός, God).—Monism: the doctrine that God is all, all Nature being a mode of the Divine existence. This hypothesis implies the necessary and eternal coexistence of the finite and the infinite: the consubstantiality of God and nature, considered as two different but inseparable aspects of universal existence. It may take either of two forms. The higher is the absorption of all things in God (Acomism); the lower, the absorption of God in all things, which is practically Atheism. Personality, Freedom, and Moral Responsibility are sacrificed under either phase of the theory.

In Greek thought, the Eleatic school, of which the founder was Xenophanes and the chief philosopher Parmenides, maintained the unity and identity of Being, denying the existence of the finite and changing.

The most outstanding example in modern times is presented in the Theory of Spinoza. *Ethics*. Holding that the universe is explained only by reference to the single notion of God, his main positions are, that there is but One Substance; that the attributes of the One Substance are infinite; that all the manifold appearances in Nature are only modes of these attributes. God is at once *res cogitans* and *res extensa*; and there is no existence besides.

Hegel makes Nature and Spirit successive stages in the manifestation of the absolute Idea, takes dialectic evolution as the key to the unfolding of existence. He represents the Absolute as returning upon itself, so that all existence is again absorbed in the One. *The Logic*.

Saisset, *Modern Pantheism*; Flint, *Anti-Theistic Theories*; Plumptre, *Hist. of Pantheism*, 2 vols.; Pollock, *Spinoza*; Martineau, *Study of Spinoza*; Hutchison Stirling, *Secret of Hegel*; Wallace, *Hegel's Logic*; Green, *Prolegomena to Ethics*.

PARADOX (*παρά δόξα*, beyond, or contrary to, appearance).—An utterance wearing the semblance of incongruity, yet capable of being interpreted in such a manner as to gain assent. For example, if we aim directly at happiness, we miss it. Mill's *Utilitarianism*, 23.

PARALOGISM (*παραλογισμός*, from *παραλογίζομαι*, to reason wrongly) is a formal fallacy or pseudo-syllogism, in which the conclusion does not follow from the premises. The *Sophism* is a fallacy *intended* to deceive.

Under "Paralogism," Kant contemplates the perplexities in which our reason is involved by its own forms. "The logical paralogism consists in the falsity of an argument in respect of its form, be the content what it may. But a transcendental paralogism has a transcendental foundation, and concludes falsely, while the form is correct and unexceptionable. In this manner the paralogism has its foundation in the nature of human reason, and is the parent of an unavoidable, though not insoluble, mental illusion." Kant, *Pure Reason*, p. 237, Meiklejohn's Tr. It is a "*sophism*, not of man, but of pure reason herself, from which the wisest cannot free himself." Kant limits the application of the term *Paralogism* to that illusion which is at the root of *Rational Psychology*, viz., the inference, "from the transcendental conception of the subject which contains no manifold," to "the absolute unity of the subject itself."

PARCIMONY (Law of), (*parcimonia*, sparingness).—*Entia non sunt multiplicanda præter necessitatem. Frustra fit per plura quod fieri potest per pauciora.* "That substances are not to be multiplied without necessity;" "that several principles are not to be assumed, when the phenomena can

possibly be explained by one." Hamilton, *Reid's Works*, note A, p. 751. Lotze, *Metaphysic*, Eng. Tr., p. 373.

PARTHENOGENESIS (*παρθένος*, virgin; *γένεσις*, origin).—"The production of living organisms from unimpregnated eggs or seeds." Darwin, *Origin of Species*, Glossary, p. 412.

PASSION (*patior*, to bear, undergo, endure; *πάσχω*, to suffer, or to be affected by anything).—Highly excited feeling, violently urging towards action; intense emotion, suffering.

"The Passions" is a phrase applied to turbulent feeling, which weakens power of self-command.

Plato distinguished feelings as concupiscent and irascible, *ἐπιθυμία* and *θυμός*, desire and anger. The distinguishing of these two was characteristic of his more advanced thought. He starts the question, "Is passion different from reason, or only a kind of reason?" *Repub.*, iv. 440.

Aristotle included all our active principles under one general designation of Orectic (*ὄρεξις*, desire). He distinguished them into the appetite irascible, the appetite concupiscent, both of which have their origin in the body; and the appetite rational (*βούλησις*), which is the will, under the guidance of reason.

Spinoza, *Ethics*, pts. iii.-iv.; Hume, *Treatise on Human Nature*, bk. ii., "Of the Passions." On the power of the passions to bias the mind, and even to blind intelligence,—Mill, *Logic*, bk. v. sect. 3. "Any strong passion renders us credulous."

PASSIVE.—Inactive. "Passive experience" is the result of physical or mental susceptibility, as acted upon by external objects, or by thought and imagination.

PATHOLOGY OF BRAIN.—Science of diseased conditions of the central organs of the nerve system. This department of observation is of special value in Experimental Psychology, as illustrating restraints on normal action of mind; abnormal excitement or depression; delusions, and interpretations of abnormal experience. Feuchtersleben, *Medical Psychology*; Ferrier, *Localisation of Cerebral Disease*; Clouston, *Mental Diseases*; Virchow, *Cellular Pathologie*; Maudsley, *Responsibility in Mental Disease*.

PERCEPTION (*capio*, to take; *per*, by means of).—Simple

apprehension, commonly applied to the recognition of an external object by means of the senses. Its essential conditions are, (a) sensibility of organism, excited by contact; (b) the consequent sensation in consciousness; (c) judgment, a comparing power dealing with present fact, and with previous knowledge. Internal perception is—simple apprehension of any modification present in consciousness. This is in itself a condition of consciousness.

“All the modes of thinking which we experience may be reduced to two classes, viz., *perception*, or the operation of the understanding, and *volition*, or the operation of the will.” Descartes, *Prin. Phil.*, pars. i. sec. 32.

“The two principal actions of the mind are these two: *perception* or *thinking*, and *volition* or *willing*.” Locke, *Essay*, bk. II. ch. vi.

“By means of sensibility, objects are given to us, and it alone furnishes us with intuitions; by the understanding they are thought, and from it arise conceptions.” Kant, *Pure Reason*, pt. first, *Introductory*. (1) “*Perceptio*, in its primary philosophical signification, as in the mouths of Cicero and Quintilian, is vaguely equivalent to comprehension, notion, cognition in general; (2) an apprehension, a becoming aware of a consciousness. *Perception*, the Cartesians really identified with *idea*, and allowed them only a logical distinction; the same representative act being called *idea*, inasmuch as we regard it as a representation; and *perception*, inasmuch as we regard it as a consciousness of such representation; (3) *perception* is limited to the apprehension of sense alone. This limitation was first formally imposed by Reid, and thereafter by Kant. (Kant also distinguishes between *sensation*, or the *matter* of perception, which must be *given* to the mind, and its *form* which is imposed upon this matter by the mind itself); (4) a still more restricted meaning, through the authority of Reid, is *perception* (proper), in contrast to *sensation* (proper). He defines sensitive *perception*, or *perception* simply, as that act of consciousness whereby we apprehend in our body, (a) certain special affections, whereof, as an *animated* organism, it is contingently susceptible; and (b)

those *general relations of extension*, under which, as a *material organism*, it necessarily exists. Of these *perceptions*, the former, which is thus conversant about a *subject-object*, is *sensation proper*; the latter, which is thus conversant about an *object-object*, is *perception proper*." Hamilton, *Reid's Works*, 876.

PERFECTION (*perficio*, to do thoroughly, to finish; *perfectum*, completeness).—Full development; attainment of ideal excellence.

"By *perfection* is meant the full and harmonious development of all our faculties, corporeal and mental, intellectual and moral. . . . Human perfection and human happiness coincide, and thus constitute, in reality, but a single end." Hamilton, *Metaph.*, i. 20.

"Self-realisation" is the Hegelian representation of the ethical end. In accordance with a scheme of evolution, it is the unfolding of the life according to its ideal, given in consciousness. Hegel's *Philos. of History and of the State*, translated in summary by Morris; Griggs, *Philos. Classics*; Caird, *Hegel*; Bradley, *Ethical Studies*; Green, *Prolegomena to Ethics*.

PERIPATETIC (*περιπατέω*, to walk about) is applied to Aristotle and his followers, who carried on their philosophical discussions while walking up and down. Diogenes Laertius says, on the authority of Hermippus:—"He chose a promenade in the Lyceum, in which he walked up and down with his disciples discussing subjects of philosophy, till the time for anointing themselves came; hence he was called (*Περιπατητικόν*) Peripatetic. But others say, it was on account of walking with Alexander when he was recovering from an illness." Diog. Laert., bk. v. The disciples of Aristotle are known as the Peripatetics.

PERSON (*persona*).—A self-conscious intelligence exercising understanding and will in the regulation of life.

Persona meant the mask worn by an actor, within which the sounds of the voice were concentrated, and through which he made himself heard (*personavit*) by the audience. It came next to be applied to the actor, then to the character acted,

then to any assumed character, and lastly, to each one having the characteristics of a rational agent.

“Person stands for a thinking intelligent being, that has reason and reflection, and can consider itself as itself, the same thinking thing in different times and places.” Locke, *Essay*, bk. ii. 27. “He to whom actions can be imputed is called person.” Kant, *Metaphysics of Ethics*, Semple, 3rd ed., p. 172. “Man and every reasonable agent exists as an end in himself.” *Ib.*, p. 41.

Only a self-determining agent can be the subject of moral law. Hegel’s formula for the ethical imperative is, “Be a person, and respect others as persons.” *Grundlinien der Philosophie des Rechts*, sec. 36, p. 42; *Werke*, viii. 75. Green, *Proleg. to Ethics*, pp. 84, 191. A. Seth, *Hegelianism and Personality*. On Personality as belonging to the Absolute, Mansel, *Limits of Religious Thought*; Lotze, *Philosophy of Religion*, § 25, p. 41; Herbert Spencer, *First Principles*.

PESSIMISM.—The theory that evil so prevails in the world, as to make it the worst possible of worlds. In its recent forms this theory is a reaction against Hegel’s identification of the rational and the existing.

Schopenhauer, *The World as Will and Representation*, uses “Will” as equivalent to impulse and action in all forms, including even the forces of nature. In these appears the objectification of Will. He holds to a progression in the universe from lower to higher forms of impulse, but considers that in the process excess of pain and evil is inevitable, and therefore that the world is the worst possible. Eng. Transl. by Haldane and Kemp.

Hartmann, in his *Philosophy of the Unconscious* (Eng. Transl. by Coupland), takes a similar view, maintaining that progression is at the cost of suffering to such a degree that it were better the world did not exist, and yet he grants that development implies that the world is the best possible under the conditions. Hartmann’s *Pessimism* thus involves a modified *Optimism*. Sully’s *Pessimism*; Flint, *Anti-Theistic Theories*; Ueberweg’s *History*, ii. 255 and 236. Pessimism favours asceticism, in order to escape the evil, anticipating unconsciousness as the end of all. For this theory, the evil thing in the

direction of conduct is the will to live,—the eagerness to sustain and protect our life. The one blessing is found in the Nirvana, celebrated by the Buddhist.

PHENOMENON (*φαινόμενον*, from *φαίνομαι*, to appear; German, *Erscheinung*). Appearance,—any transitory element in our experience,—generally applied to sensible appearance. In mental philosophy, it includes the changing states of mind. We thus have “phenomena of nature,” and “phenomena of mind,” placed in contrast.

“The undetermined object of an empirical intuition is called *phenomenon*. That which in the phenomenon corresponds to the sensation, I term its *matter*; but that which secures that the content of the phenomenon can be arranged under certain relations, I call its *form*.” Kant’s *Pure Reason*, Meiklejohn’s Transl., p. 21. “The empirical intuition is a mere phenomenon in which nothing that can appertain to a thing in itself can be found: . . . in the whole range of the sensuous world, investigate as we may, we have to do with nothing but phenomena.” *Ib.*, p. 36. As to self-consciousness,—“The subject intuits itself, not as it would represent itself immediately and spontaneously, but according to the manner in which the mind is internally affected; consequently, as it appears, not as it is.” *Ib.*, 41. “Things in themselves, which lie beyond the province of sensuous cognition, are called *noumena*.” *Ib.*, p. 187. “The existence of phenomena always conditioned and never self-subsistent, requires us to look for an object different from phenomena,—an intelligible object, with which all contingency must cease.” *Ib.*, 349.

These positions involve a thorough-going phenomenalism, which threatens the whole theory of Knowledge. Hence the force of Hutchison Stirling’s criticism.

Spencer’s criticism of the use of “phenomenon,” *First Principles*, part ii. c. iii. p. 158.

PHILANTHROPY (*φιλανθρωπία*; *φίλος*, a friend; *ἄνθρωπος*, man).—The love of mankind,—the good-will due between man and man as moral beings, possessing the powers, possibilities, and responsibilities of moral life.

PHILOSOPHY (*φιλοσοφία*; *φιλία*, love; *σοφία*, wisdom).—

The first use of the word is traced to Pythagoras, who did not call himself σοφός, like the wise men of Greece, but a lover of wisdom, φίλος σοφίας. Philosophy is the rationalised view of existence; "the thinking view of things;" "the attainment of truth by the way of reason," interpreting the conditions of knowledge.

Technically, *Philosophy* is the ultimate rational explanation of things, by discovery of the reason of their existence, showing *why* they exist. *Science* is a rational explanation of external phenomena, a discovery of invariable sequence in their occurrence, warranting us to postulate a "law of nature." As investigating the *presuppositions* of Science, Philosophy has been called "First Philosophy," Ontology,—a philosophy of Being,—"the science of principles." Philosophy thus contemplates the whole of existence, while science deals with selected parts.

"Philosophy began in wonder," Διὰ γὰρ τὸ θαυμάζειν οἱ ἄνθρωποι, καὶ νῦν καὶ τὸ πρῶτον ἤρξαντο φιλοσοφεῖν. Aristotle, *Metaph.*, i. 2.

Rerum divinarum et humanarum, causarumque quibus hæ res continentur, scientia. Cicero, *De Officiis*, lib. ii. cap. ii.

"The contemplations of man do either penetrate unto God, or are circumferred to nature, or are reflected or reverted upon himself. Out of which several inquiries there do arise three knowledges, *Divine philosophy*, *natural philosophy*, and *human philosophy*." Bacon, *Advancement of Learning*, bk. ii.

PHRENOLOGY (φρήν, mind; λόγος, science).—The hypothesis that mind can be interpreted by reference to subdivisions of the Cranium; a hypothesis set aside by discovery of the relation of the cranium to the brain, and of localisation of functions in the cortex of the cerebrum. Ferrier, *Functions of the Brain*; Carpenter, *Mental Physiology*; James, *Prins. of Psychol.*, i. 27; Höffding, *Psychology*; Sully, *Human Mind*.

PHYSICS.—Science as concerned with the laws of *unorganised* matter.

PHYSIOLOGY.—The science of the vital conditions, and organic functions, of living organism.

In its relation with mental philosophy, it is its province to deal with the brain and nervous system of man, as instruments

of experience, thus tracing the external conditions of our feeling and knowledge.

The facts of experience must be assumed on the testimony of consciousness, in order that observation may seek an explanation of these, so far as physiological law can be found to carry such explanation. Physiology must ascertain the physical basis of experience. In accepting consciousness, it is granted that comparison and knowledge are distinct from the functions of nerve and brain; that experience is constituted by the facts to be interpreted; but that the facts of nerve action are not matter of common knowledge,—not belonging to experience. Hence the utmost that Physiology can accomplish is to ascertain what is the physical basis of a set of facts unknown to Physiology. The philosophy of these facts of experience must be otherwise ascertained, by interpretation of experience itself.

Psychology must begin by accepting the testimony of consciousness, as Physiology must. While the one ascertains the physical basis of mental life, the other must provide the science of this life itself, must supply a philosophy of experience.

In a Philosophy of mind-action, and mind-history, Physiology includes organic structure, the laws of sensibility, the laws of reflex, and of sensori-motor, action, the functions of the several nerve centres, specially the paths and currents traceable in each hemispherical cortex and in the relations of the two hemispheres. This, in rough outline, gives the range of what may be named Physiological-Psychology or Experimental Psychology. The transition from the action of fibres and cells, to activity in consciousness, remains a mystery, and cannot be included within the work either of Physiology or of Psychology. We can make out a parallelism between organic function and conscious experience; but how they are connected and mutually dependent, we are unable to ascertain. Spencer, *Principles of Biology*.

On the relation of *Physiology* to *Psychology*, see Carpenter's *Mental Physiology*; Maudsley's *Physiology and Pathology of Mind*; Ferrier's *Functions of the Brain*; Calderwood, *Evolution* and *Mun's Place in Nature*; Wundt, *Physiologische Psycho-*

logie; Waitz, *Lehrbuch der Psychologie*; Volkmann, *Lehrbuch der Psychologie*; Münsterberg, *Beiträge zur exper. Psychologie*; Lotze, *Microkosmos*; Ladd, *Physiol. Psychology*; James, *Principles of Psychology*; Höfding, *Psychology*; Baldwin, *Handbook of Psychology and Elements of Psychology*.

PLEASURE.—Agreeable experience, whether it have a physical or mental basis. The pleasure-feeling belongs to all life. In so far as experience has origin in organism, some phase of the agreeable is connected with all healthy action. In so far as it depends on thought, experience being psychic in character, the law of the pleasurable is continued, but with more complex arrangement. Here, agreeable experience is partly spontaneous, partly voluntary, as when it is the result of appreciation of “the true, the beautiful, and the good.”

Behind these contrasts, comes the induction of modern biology that the agreeable in experience is generally associated with the beneficial in action. On this primary fact rests the scheme of biological evolution.

Alongside of this must be placed an earlier induction bearing on the characteristics of moral life, to which Aristotle gave prominence, that our dangers are connected mainly with our pleasures. “Guard chiefly against the pleasurable and pleasure itself.” *N. Ethics*, bk. ii. ch. ix. The pursuit of pleasure involves many in the loss of life.

Out of this acknowledgment comes naturally, Mill’s distinction of *qualities* of pleasures, higher and lower, more and less preferable, as the pleasures are connected with what is higher or lower in the powers exercised. “Human beings have faculties more elevated than the animal appetites.” *Utilitarianism*, p. 11. “Sensuous pleasure is natural, but not meritorious to strive for.” Lotze, *Practical Philos.*, § 10, p. 23, trans. Ladd.—*Vide* HAPPINESS THEORY.

POLITICAL PHILOSOPHY.—The Science of Civil Government; rational exposition of the principles concerned with security for the liberties, industries, and possessions of men, as this may be provided for in the government of communities. The aim of Political Philosophy is to recognise the laws affecting the relations of persons in organised

communities ; and to trace their application through all the intricacies of organisation and government of the state. At its basis lies the principle of Justice, the equality of men as men, under common obligations, and having equal rights of liberty and labour, production and possession. On its practical side, it treats of the application of fundamental principles to the constantly changing conditions of life, the enterprise and competition, induced by advancing civilisation.—*Vide* POLITICAL ECONOMY.

Hume's *Political Essays* ; Ferguson's *Civil Society* ; Hegel's *Philos. of History and of the State*, Morris's Tr. ; Vinet on Social Philosophy, in *Outlines of Philosophy and Literature* ; Lorimer's *Institutes of Law* ; Pollock's *Jurisprudence and Ethics* ; Stephen's *Liberty, Equality, and Fraternity* ; Buckle's *History of Civilisation* ; Spencer's *Sociology* ; *The English Citizen Series*, The State's relation to Law, Government, Education, Trade, Labour, Land, Poor Law, Electorate.

POLITICAL ECONOMY.—The science of the laws of Wealth, including the laws of production, distribution, and exchange of commodities.

“The annual labour of every nation is the fund which originally supplies it with all the necessaries and conveniences of life which it annually consumes, and which consist always either in the immediate produce of that labour, or in what is purchased with that produce from other nations.” Smith, *Wealth of Nations*, i. 1.

“Wealth may be defined, All useful or agreeable things, which possess exchangeable value.” Mill, *Polit. Ec.*, intro.

“The economist regards man as a being who produces, distributes, exchanges, and consumes wealth, and considers him as a member of society, one of the objects of which is to deal with wealth.” But “no economist imagines that wealth can be treated quite independently of other social phenomena.” Nicholson, *Principles of Political Economy*, i. p. 13.

“The chief motives which induce the saving of capital are supplied by the family affections.” Marshall, *Principles of Economics*, i. 701. On “the fundamental scientific unity which underlies the whole theory of normal value,” see

Marshall, i. 698. On "the law of diminishing return," and "the law of increasing return," see Nicholson's *Principles*, bk. i. c. x., vol. i., p. 151.

For more recent problems and developments, — Sidgwick, *Prins. of Political Economy*; Marshall, *Principles of Economics*, vol. i., and *Economics of Industry*; Nicholson's *Principles of Pol. Economy*, vol. i.; Ingram, *Hist. of Polit. Econ.*; Palgrave, *Dictionary of Polit. Econ.*; Say, *Dictionnaire D'Economie Politique*, 2 vols.; F. A. Walker, *The Wages Question*, and *Money in relation to Trade and Industry*.

Literature of Economics, by Professor J. Shield Nicholson, D.Sc., University of Edinburgh:—"Mill absorbed all that was best in previous writers, and is the starting-point—in the way of criticism or development—of most of the recent advances.

Certain parts of Adam Smith (say, bk. iv.) and Ricardo (say, on Currency) should be read at first hand—great writers cannot be compressed without loss.

Sidgwick's *Principles* is especially good in definitions; and, on the 'art of Political Economy and governmental interference,' is suitable for advanced students. Marshall's *Principles* is excellent on the theory of value.

Prof. F. A. Walker, Yale (U.S.A.), has written several textbooks which are very good.

Dr Keynes (the formal logician) has a very good book on the 'Logical Method of Political Economy,' which gives all the latest (and also oldest) ideas on the subject.

The works of Prof. Bastable on *Public Finance* and *Foreign Trade* are good in themselves, and carry on the development on English lines.

Bagehot's *Lombard Street* is a good introduction to money and banking; and G. J. Goschen on the *Theory of the Foreign Exchanges* is already a classic.

In German, consult Schönberg's *Handbuch* (*anglicé*, *Encyclopedia*) of 3000 pages compiled by the joint labour of many Professors. Gide, *Principles d'économie politiques*, 3rd ed., 1890, is an example of French clearness, brevity, and point.

Cossa's (Italian) *Guide to Political Economy*, translated by Louis Dyer, gives a very good survey of the principal writers.

On special points there are some excellent books, *e.g.*, Seebohm's *English Village Community* is to most people a revelation like Maine's *Ancient Law*.—[J. S. N.]

POLYTHEISM (πολύς, many; θεός, God).—The belief in many gods has appeared among races the lowest in intelligence, and, at the opposite extreme, flourished in Ancient Greece and Rome. Shaftesbury, *Characteristics*, bk. i. pt. i. sec. 2. Flint, *Antitheistic Theories*, app. xxxii. p. 533.

Polytheism testifies to the prevalence of religious belief, with the tendency to personify Divine agency, according to the sphere of action contemplated. The action of Socrates in condemning the prevalent religious beliefs of the people of Athens, brought upon him the charge of Atheism. Plato, *Apology*, 26.

PORPHYRY (Tree of).—In the 3rd century Porphyry wrote *Εἰσαγωγή*, *Introduction to the Categories of Aristotle*. In this he represented the *five predicables* under the form of a tree with its trunk and branches; hence the name. By the Greek logicians, it was called the *ladder* (κλίμαξ) of Porphyry. The *Εἰσαγωγή* is translated in Owen's ed. of Aristotle's *Organon*.

POSITIVISM.—The name given by Comte to his system of philosophy, as professedly based upon facts, with denial of the possibility of any knowledge of causes; a philosophy of uniform sequences. M. Auguste Comte, *Cours de Philosophie Positive* :—"This is the mission of *Positivism*, to generalise science, and to systematise sociality; in other words, it aims at creating a philosophy of the sciences, as a basis for a new social faith." A social doctrine is the *aim of Positivism*,—a scientific doctrine the *means*.

"The leading conception of M. Comte, named 'the law of the three states,' is that there are but three phases of intellectual evolution—the *theological* (supernatural), the *metaphysical*, and the *positive*. In the *supernatural* phase, the mind seeks *causes*, unusual phenomena are interpreted as the signs of the pleasure or displeasure of some god. In the *metaphysical* phase, the supernatural agents are set aside for abstract forces inherent in substances. In the *positive* phase, the mind

restricts itself to the discovery of the *laws* of phenomena." Lewes, *Comte's Philosophy of Sciences*, 1853, sec. 1.

Positivism has, however, its system of religion. Its god is Humanity, its worship is *le culte systematique de l'Humanité*.

The object of its homage is the human race in its totality, which is conceived as *le Grand-Etre*.

Martineau, *The Positive Philosophy of Comte*, 2 vols.; J. S. Mill, *Auguste Comte and Positivism*; E. Caird, *Social Philosophy of Comte*; Martineau, *Types of Ethical Theory*, i. 401 ff.; F. Harrison, articles in *Contemporary Review*; M'Cosh, *Positivism and Christianity*; Flint, *Antitheistic Theories*, lect. v.; Calderwood, *Handbook of Moral Philosophy*, p. 59.

POSTULATE (*postulatum*, ἀῖτημα, that which is asked or assumed).—An assumed basis from which to reason.

Kant's Postulates of Empirical Thought are these:—(1) that which agrees with the formal conditions of experience is possible; (2) that which coheres with the material conditions of experience (sensation) is *real*; (3) that whose coherence with the real is determined according to universal conditions of experience is *necessary*. *Pure Reason*, Meiklejohn's Tr., p. 161; Stirling's *Text-Book to Kant*, p. 323.

Kant's Postulates of Pure Practical Reason "all proceed from the principle of morality, which is not a postulate but a law." They are suppositions practically necessary. "These postulates are those of *immortality*, *freedom*, positively considered (as the causality of a being so far as he belongs to the intelligible world), and *the existence of God*." Kant's *Theory of Ethics*, Abbott, p. 231.

POTENTIAL.—That which can be accomplished, because of power existing in an agent,—the possible, as opposed to the *actual*,—δύναμις as opposed to ἐνέργεια. This antithesis is a fundamental feature in the Aristotelian philosophy. According to Aristotle, the universe is a constant process of evolution of the *actual* from the *potential*.

POWER (*potentia*, *posse*, to be able; δύναμις).—Force, as *e.g.*, water-power; that which originates activity, whether mechanical

or mental. Direct knowledge of originating power is given only in the consciousness of our own agency.

“In the strict sense, *power* and agency are attributes of mind only ; and, I think, that mind only can be a *cause* in the strict sense.” Reid, *Correspondence*, pp. 77, 78.

“Power may be considered as twofold, viz., as able to make, or able to receive, any change : the one may be called active, and the other passive power.” Locke, *Essay*, bk. ii. ch. xxi. sec. 2.

“The terms of *efficacy*, *agency*, *power*, *force*, *energy*, *necessary connection*, and *productive quality*, are nearly all synonymous.” Hume, *Treatise*, pt. iii. sec. 14. “There are no ideas, which occur in metaphysics, more obscure and uncertain than those of *power*, *force*, *energy*, or *necessary connection*, of which it is every moment necessary for us to treat in all our disquisitions.” Hume, *Inquiry*, sec. 7. Hume’s *Enquiries*, Selby-Bigge, p. 62.

Energy may be taken as the term which includes all in the universe which operates so as to produce change ; *force* as the measurable amount of potency actually at work ; while self-determined effort in consciousness is the only representation of causality.

PRACTICAL (German, *praktisch*).—Kant’s description of Reason when regarded as the guide of Will, in contrast with Reason regarded as a knowing power. “Reason is bestowed on man as a practical faculty of action, *i.e.*, such a faculty as influences his will and choice.” *Metaph. of Ethics*, Semple, 3rd ed., ch. 1.

It is “the governor of the Will to constitute it good.” “Thus is the common reason of man compelled to go out of its sphere, and to take a step into the field of practical philosophy, not to satisfy any speculative want (which never occurs to it, as long as it is content to be mere sound reason), but even on practical grounds, in order to attain in it information and clear instruction respecting the source of its principle, and the correct determination of it, in opposition to the maxims which are based on wants and inclinations.” *Ib.*, Abbot’s transl.

PREDICATE (*prædicō*, to affirm).—That which is affirmed

of any one, as wisdom of Peter. A *predicable* is that which may be affirmed of many, as sun may be affirmed of other suns besides that of our system. A *predicament* is a series, order, or arrangement of predicates and predicables under some summum genus, as substance, or quality.

What is affirmed or denied is called the *predicate*; and that of which it is affirmed or denied is called the *subject*.

PRE-ESTABLISHED HARMONY.—*Vide* OCCASIONAL CAUSES.

PREMISES (*propositiones præmissæ*) are propositions which go before the conclusion, and from which it is inferred.—A regular syllogism consists of two *premises* and a *conclusion*. The premises are called respectively the *Major* and *Minor*.

PRIMARY QUALITY (*primus*, first), as opposed to secondary, is such as is essential to the object. The secondary is such as awakens in us a phase of experience which is distinct from the essential property of the object. This contrast has been largely abandoned, being a subjective distinction rather than an objective one, and springing out of the contrast between general sensibility and the sensibility of the special senses.

Primary Qualities are "such as are inseparable from the body, in what state soever it be," such as solidity, extension, figure, motion, rest, and number. Locke, *Essay*, bk. ii. ch. viii. sec. 9.

"Our senses give us a direct and distinct notion of the primary qualities, and inform us what they are in themselves. But of the secondary qualities, our senses give us only a relative and obscure notion. They inform us only that they are qualities that affect us in a certain manner." Reid, *Intellectual Powers*, Ess. ii. c. 17.

PRINCIPLE (*principium*, ἀρχή, a beginning).—Origin, or originating condition. In respect of intelligence, a first truth; in respect of activity, impulse; the source of intelligent movement, motive power.

Hence *principles* have been divided into those of being, and those of knowledge; or *principia essendi* and *principia cognoscendi*.

Aristotle, *Metaph.*, lib. iv. cap. 1, distinguishes several mean-

ings of ἀρχή, and adds, "What is common to all first *principles* is that they are the *primary source from which anything is, becomes, or is known.*"

Principles of Knowledge are original truths by means of which other truth is known. These are first truths, primitive beliefs, or "the principles of common-sense" of the Scottish Philosophy.

Principles of Action may mean either (*a*) the laws of right conduct, or (*b*) the motive forces, the impulses, which urge to action. The former is the origin of rational conduct; the latter, being prior in experience, may warrantably be named the principle of action, when life-action is taken as a unity. There is no exercise of Intelligence and Will save on the condition of the presence of some impulse.

PROBABILITY (*probabilis*, probable).—Likely, according to known conditions of existence. That which, while not demonstrated, does not involve absurdity or contradiction, is *probable*.

"As demonstration is the showing the agreement or disagreement of two ideas, by the intervention of one or more proofs, so *probability* is nothing but the appearance of such an agreement or disagreement, by the intervention of proofs, whose connection is not constant and immutable, or at least is not perceived to be so, but is enough to induce the mind to judge the proposition to be true or false, rather than the contrary." Locke, *Essay*, bk. iv. ch. xv. sec. 1; Reid, *Intellectual Powers*, Ess. vii. c. 3; Stewart, *Elements*, pt. ii. c. 2, § 4; Bradley, *Logic*, 201.

PROBLEMATIC.—"Problematic judgments are those in which the affirmation or negation is accepted as merely possible." Kant, *Pure Reason*, Meiklejohn's Tr., p. 61.

PROOF.—Evidence, either confirmatory of a proposition, or adequate to establish it.

"By *proofs* we mean such arguments from experience as leave no room for doubt or opposition." Hume, *Inquiry*, sec. 6, note. Proving may be defined "the assigning of a reason or argument for the support of a *given* proposition." Whately, *Logic*.

PROPERTY (Proprium).—*Logically*, a subordinate quality connected with those qualities or attributes which constitute the connotation of a Term.

In *Ethics*, and in *Economics*, Personal possession, to which the individual has an Ethical right. Primarily, proprietorship springs from production. That which a man makes is his own.

PROPOSITION.—A judgment expressed in words, and consisting of three parts, the *Subject*, *Predicate*, and *Copula*.

Propositions are *affirmative* or *negative*, according as the predicate is said to agree or not to agree with the subject.

A *Categorical proposition* declares a thing absolutely, as, "Man is fallible." A *Conditional proposition* asserts only hypothetically. Conditional propositions are either *Conjunctive*, also called *Hypothetical*, or *Disjunctive*.

Propositions are *universal* or *particular*, according as the predicate is affirmed or denied of the *whole* of the subject, or only of *part* of the subject.

PROTOPLASM (*πρῶτος*, first; and *πλάσσω*, I form).—The primary homogeneous substance from which organism is sustained, and which contributes to the development of life in all its forms. "A semi-fluid substance," found in living cells "transparent, colourless, not diffuent, but tenacious, and slimy." Quain's *Anatomy*, i. xv., 7th ed. "The physical basis of life." Huxley, *Lay Sermons*, p. 132.

"It appears to be a matter of no great moment what animal or what plant I lay under contribution for protoplasm. . . . I share this catholicity of assimilation with other animals, all of which, so far as we know, could thrive equally well on the protoplasm of any of their fellows, or of any plant." *Ib.*, 147.

"Plants can manufacture fresh protoplasm out of mineral compounds, whereas animals are obliged to have it ready-made, and hence, in the long-run, depend upon plants." *Ib.*, 138; Hutchison Stirling, *As Regards Protoplasm*.

PRUDENCE—(*prudētia*, contracted for *providētia*, foresight or forethought; *provideo*, to foresee).—The habit of acting with deliberation and forethought, in view of the lessons of experience.

In ancient Ethics, the prudential considerations are con-

spicuous. Protagoras explains to Socrates that he professes to teach *ἐβουλία*, good-counsel, or the prudential regulation of life, in Greek thought always associated with the life of the State,—“the political art.” Plato, *Protagoras*, 328. Socrates also takes “well-living” as the account of a virtuous life. *Ib.*, 351. Plato, in enumerating the Cardinal Virtues, places wisdom, *σοφία*, first in order,—“the wise, as being good in counsel,” as that which should direct the State. *The Republic*, bk. iv. 428.

Aristotle, in view of the difficulty of hitting the mean, laid down these rules of prudence :—(1) of the two extremes, shun the worst ; (2) avoid the evil to which you are personally prone ; (3) guard chiefly against the pleasurable, and pleasure itself. *N. Ethics*, ii. 9.

PSYCHIC (*ψυχή*, the soul).—Pertaining to the soul, or to any process distinctive of consciousness. Applied to phenomena special to mind ; and used in contrast with *physical*.

Ambiguity in the use of this term arises from diversity in defining “mind,” and commonly from including the phenomena of nerve-sensibility within the “mental.” The latter belong to the Physiological, which is without doubt the physical. If nerve-action is a mental phenomenon, no claim can be maintained for a distinctive term, such as Psychic. Either the term “soul” is the designation for an order of life, distinguishable from the body, or there is no warrant for classification of psychic phenomena.

PSYCHOLOGY (*ψυχή*, the soul ; *λόγος*, science).—A theory of the nature and powers of the Mind ; interpretation of the facts of consciousness. Its method is observational, by means of introspection, and is inductive. Its first requirement is Analysis, distinguishing things which differ ; its second, Synthesis, interpreting the laws of coherence in accordance with which the unity of consciousness is secured.

This constitutes the first division of Mental Philosophy. For Ancient Philosophy, from the days of Socrates, *γνώθι σεαυτόν* became the guiding phrase ; *Cogito, ergo sum*, gave its start to Modern Philosophy, when Descartes sought a basis of certainty.

Psychology has been described as *empirical*, having for its object the phenomena of experience ; and *rational*, having for

its object the nature of the soul, or the unity of life finding its transitory expression in the phenomena of consciousness. *Vide* Kant, *Pure Reason*, Intro. to "Æsthetic."

Psychology is "the science of that which thinks, feels, and wills, in contrast with that which moves in space and occupies space." Höffding, *Psychology*, 1. "Psychology is as little bound to begin with an explanation of what mind is, as Physics is obliged to begin with an explanation of what matter is." *Ib.* "Psychology stands at a point where natural science and mental science intersect; where the one passes over into the other." *Ib.*, 27. Hence "Physiological Psychology."

Psychology has frequently been identified with *Theory of Knowledge*, or *Epistemology*, and even with *Metaphysics*, or *Philosophy* itself. These are now more strictly defined. *Psychology* is being confined to *Empirical Psychology*, regarded as a *science*, therefore not directly belonging to Philosophy; and is differentiated from the other sciences by its *province* and its *mode* of inquiry. Hence "Comparative Psychology."

Empirical Psychology "must be placed by the side of empirical physics or physics proper, that is, must be regarded as forming a part of applied philosophy. . . . Empirical psychology must therefore be banished from the sphere of Metaphysics." Kant, *Pure Reason*, Meiklejohn's transl., 513.

Article "PSYCHOLOGY," by Ward, *Encycl. Britannica*, 9th Ed.

"Relation of Physical Phenomena to Psychical," Sully, *Human Mind*, i. p. 1; Hamilton's *Metaph.*, lect. viii.; Sully, *Outlines of Psychology*; Ladd, *Elements of Physical Psychol.*; James, *Principles of Psychology*, and *Handbook*; Höffding, *Psychology*; Dewey, *Psychol.*; Davis, *Elements of Psychol.*; Baldwin, *Handbook of Psychology* and *Elements of Psychology*; Wundt, *Grundzüge der Physiologische Psychologie*; Volkman, *Lehrbuch der Psychologie*; Münsterberg, *Beiträge zur exper. Psychologie*.

"Psychologically, the evolution hypothesis is a great advance: it opens up a wider horizon, a prospect of explanation previously closed to us. Psychologically, as physiologically, the doctrine that that which is inexplicable in the individual may be explicable in the race, is fully justified, and will certainly prove more and

more a fruitful principle. But from the point of view of the theory of knowledge, it is a different affair." Höfding, *Outlines of Psychology*, p. 355.

EXPERIMENTAL PSYCHOLOGY. — By C. M. Douglas, D.Sc.

Experimental Psychology (the experimental study of mental phenomena) is a special branch of observational psychology. It consists in observation of consciousness under conditions which are artificially imposed for the purpose of the observation.

Experimental Psychology is not to be confused with Physiological Psychology. Experimental methods are not essentially physiological in their aim. Their use in Psychology is very generally associated with study of the physical conditions of mental life; and this is, no doubt, partly due to the increased accuracy and coherence which recognition of those physical conditions imparts to the investigation of mental facts. But mental facts themselves are no less susceptible to experimental investigation, than their physical concomitants; and the name "Experimental Psychology" properly applies to the observation only of mental and not of cerebral or other nervous phenomena.

Psychological Experiment is of two kinds—direct and indirect.

1. Experiment may, *e.g.*, consist in observation of our own mental states under conditions which have been devised for the purpose of the experiment. This is the simplest case of direct experiment. But under this head we must also include all experiments which are carried out with the knowledge, comprehension, and consent of the subjects—those subjects being healthy adults in a normal state of consciousness. Such experiments are, in point of fact, acts of introspection, since, in making them, we do not merely argue to the mental state of the subject indirectly, from external signs, but accept his account of it, as the result of an intelligent and reliable self-observation.

2. Experimental methods may also be applied to the indirect observation of mental states—to observation, *i.e.*, not of consciousness itself, but of external signs from which we are able, on the analogy of the results of introspection, to argue to

conscious processes. We may, *e.g.*, observe experimentally, or under artificial conditions, those reactions from which we infer the mental processes of animals, children, or insane persons. In hypnotism we have a specially suitable means for such indirect experiment, since we can modify at will the artificially induced abnormal state of hypnosis.

But, important as such indirect experiments may be, the main interest and use of experimental method in psychology consist in its application to the development of direct or introspective observation; and it is to this application that the name "Experimental Psychology" really belongs.

The classification of psychological experiments is attended with some difficulty. The attempt to classify them in relation to their methods inevitably separates methods which only exist in combination, and involves considerable risk of subordinating "psychology" to "experiment." On the other hand, a classification of experiments according to the problems to whose solution they are directed is not wholly satisfactory; since there are many departments of psychology to which experimental method has as yet made no real contribution. Such a classification appears, nevertheless, to be preferable to any other, specially in view of the danger of dissociating experiment from other psychological methods.

A triple division of the problems has been suggested by Münsterberg, as forming a suitable basis for classification of experiments, according as the processes which these investigate are—(1) Psycho-petal, (2) Psycho-fugal, (3) Psycho-central (*Ueber Aufgaben und Methoden der Psychologie*, pp. 217 ff.).

(1) Under Psycho-petal processes are included the modes in which we are affected psychically by stimulation from the outer world or the organism.

(2) Under Psycho-fugal processes, we investigate the relation of volitions to muscular contractions, of ideational processes to involuntary and expressive movements, &c.:—in general, the effects of mental causes.

(3) In considering Psycho-central processes we do not investigate their relation to stimulations and to motor responses, but use these simply as clues to the mental processes in

question, as, *e.g.*, when we measure the time-relations of mental processes, and include, in our estimate of these, the total interval between a stimulus and the response to it. Our object is to discover the intimate nature of the mental processes.

Such a classification, while it depends on an abstract treatment of elements in mental life, is practically useful, and indicates the aims and limits of Experimental Psychology.

In practice, psychological experiments have hitherto been mainly directed to the investigation of such problems as, the relation between sensations and the stimuli which produce them: the perception of spatial and temporal relations: the duration of mental processes: the nature of the "association of ideas," and the degree in which that principle serves to explain certain of our more complex mental functions.

Experiments of great importance were made by Fechner and Helmholtz, but these were chiefly confined to sensations and their relations to stimuli. Experimental methods were applied more generally to the study of mental life, by Wundt, in the Leipzig laboratory. There are now many laboratories—specially in Germany and America—devoted to psychological investigations.

Psychological experiment is rendered difficult by the imperfection of instruments and by the necessity of finding "subjects" who are capable and reliable. But these difficulties can be increasingly obviated; they cannot be regarded as fatal to the value or success of the experimental method, which promises to be of the very greatest service to Psychology, and to render our knowledge of mental phenomena much more precise and reliable than it could otherwise have become.—[C. M. D.]

Cf. Wundt's *Physiol. Psychol.*; Münsterberg, *Beiträge zur Experimentellen Psychologie*; James, *Principles of Psychology*.

PSYCHOMETRY.—Measurement of the time for transmission of nerve excitation along the nerve-fibres communicating with the cerebrum. In this is found some estimate of the intensity of the stimulus, as correlated with mental experience and with mental action.

PSYCHO-PHYSICS.—A science of the relations between the psychical and the physical, concerned with sensibility and motor activity.—*Vide* EXPERIMENTAL PSYCHOLOGY.

PUNISHMENT (*pœna*, penalty; *punitio*, to inflict punishment).—Retributive experience, the consequence of wrongdoing. This is first an inevitable condition of moral life. Wrong-doing brings its own penalty. It is in itself a disturbance of the nature, a self-inflicted injury. It carries with it self-condemnation and self-reproach.

Punishment is further conspicuously, the vindication of Justice, and the defence of society against its violation. It is the penalty imposed by society on account of misdeeds. It implies condemnation of wrong, and adjudication of penalty as due to the wrong-doer. This is the only Ethical basis of penalty, whether in the family, in society, or in the State.

The dispute connected with a philosophy of punishment is concerned mainly with the *end* warrantably contemplated. The several views may be distinguished as the retributive, the corrective, the deterrent. These ends have been separated; one of the three has been preferred; and this has been raised into prominence as the sole end. A determining consideration has been the theory of Will-power, or view of motives accepted; and as a subordinate but influential consideration, the view of individual liberty. But, the three cannot be separated. The retributive is fundamental and essential. There is no possible theory of penalty, which does not rest on moral law, sovereign over all moral agents, applicable to the individual life, and to the government of the family, of society, and of the State. The one thing which is stronger than all human authority is Justice. Whosoever it is disregarded, even the worst of men rebel. On the ground of its authority, and on no other, men have warrant to punish others. The warrant for punishment is the absolute authority of fixed law, not the will or choice of men, whether acting as individuals, or under constitutional authority. Save in wrongdoing, there is no warrant for penalty. But moral life being rational, and society being the organisation of rational agents, there cannot be just retribution which is not corrective and deterrent.

Diversity of view :—

Dutiful actions are “the class of actions enforced by the sanction of punishment.” Bain, *Emotions and Will*, p. 254.

“On the theory of necessity (we are told) a man cannot help acting as he does, and it cannot be just that he should be punished for what he cannot help. Not if the expectation of punishment enables him to help it, and is the only means by which he can be enabled to help it?” Mill, *Examination of Hamilton's Philosophy*, 3rd Ed., p. 575.

In order that “the restraints properly distinguished as moral” may be efficient, there is need for a measure of social “compulsion,” and for “the element of coerciveness” in use of political, religious, and social restraints. Herbert Spencer, *Data of Ethics*, p. 126.

“Punishment, and the expression of moral displeasure, are required to supply the desiderated moral force.” Sidgwick, *Method of Ethics*, p. 63.

PURE.—Unmixed with any lower or heterogeneous element. Applied by Kant to an exercise of mind which has no admixture of the results of experience. Pure is thus non-empirical. “Pure Reason” is Reason in itself alone, without any mixture of sensibility. “Pure Idea” is an Idea not recognised under direction of experience, and whose object is not represented in experience. “Pure Reverence” is reverence for moral law itself as the sole motive for action, apart from inclination and desire.

PURPOSE.—Intelligently selected and deliberately cherished aim or end, for the sake of which a person acts.

QUALITY (ποιός, ποιότης, *qualis, qualitas*, suchness).—Property of an object, distinguishing it from other objects. A category without which it would be impossible for mind to exercise its discriminating power between objects. On the one side, an objective condition; on the other, a category of the understanding, giving to sensible experience its intelligibility.

Aristotle treats quality as a characteristic of things, *Metaphysics*, bk. i. 5, 3. Kant treats of quality as a category of the understanding, *Pure Reason*, Trans. Logic, first div. § 5.

QUANTITY (πόσον, *quantum*, how much).—Objectively, measure of extension or bulk; that which admits of more or less in size. Subjectively, a category of the understanding essential for comparing of material objects, according to length, breadth, and thickness.

The twofold use of the term holds as in the case of "Quality."

QUANTIFICATION OF THE PREDICATE.—Formal expression of the extension assigned in thought to the predicate of a proposition. The quantity of a proposition taken as a whole, depends upon that of the subject; and hence in the Aristotelian Logic, only the subject is *quantified*, the quantity of the predicate being implied in the quality of the proposition. Thus in all *affirmative* propositions the predicate must be regarded as *particular*, while in all *negative* propositions it is universal. All that we assert in an affirmative proposition is that the predicate includes the subject. Thus in the proposition "all stones are minerals," we only employ the word *minerals* in so far as it coincides with the word *stones*; that is, only in a part of its extension. In a negative proposition, we assert that no part of the subject is contained in any part of the predicate. Thus when I say "no stones are metals," I exclude the notion "stones" from the *entire extension* of the word "metals," and consequently use it in its whole generality. Morell, *Handbook of Logic*.

Hamilton advocates the *Quantification of the Predicate*, on the ground that what we think implicitly, we should state explicitly. Thus, when we say "all stones are minerals," we think all stones are *some* minerals, and this should appear in the form of the proposition. The consequence of quantifying the predicate would be, he contends, the increase of the fundamental propositional forms from four to eight. In addition to A, E, I, and O, we should have, according to Hamilton's nomenclature, U, Y, ω , and η . This is the substance of the advance in Logic proposed in Hamilton's *New Analytic of Logical Forms*.

The question turns upon whether we actually in thought quantify the predicate or not, and this again upon whether we naturally think the predicate in extension or in intension, *i.e.*, whether the *equational* or the *attributive* view of Judgment is true. If both the subject and predicate are naturally thought in extension, and the proposition is an equation, then both alike should be quantified. But if the predicate is naturally

intension, and the proposition is the attributive of its intension to the subject, then the predicate should not be quantified, since such quantification would not be the interpretation of our actual thought. Venn contends that the *predicative* (or *attributive*) view, and the four forms of the traditional logic founded upon it, represent with sufficient accuracy our ordinary psychological procedure. This, however, he maintains, would be no objection to Hamilton's theory, provided the latter represented a possible view of the proposition maintained consistently throughout. But he seems to prove that Hamilton's scheme is the result of a confusion between the ordinary view and the view which takes the proposition as asserting the relation of classes to one another (their mutual inclusion or exclusion), *i.e.*, the *equational* view. The latter view gives, he shows, *five* possible forms. Hamilton was misled by his love of symmetry to double the original table, though η and ω are not diagrammatically possible, and the assertion of I involves the assertion of O, *some*, on this scheme, being necessarily equal to *some but not all*. See Venn, *Symbolic Logic*, ch. i.; Hamilton, *Lectures on Logic*; Baynes, *New Analytic of Logical Forms*; Ueberweg, *System of Logic*, app. B, Transl. by Lindsay.—[J. S.]

RATIONALISM.—The system of philosophy which makes Rational power the ultimate test of truth, maintaining that the meaning of our sensory experience, and ultimately of things around us, is attained only by tests which intelligent nature supplies. Here, Epistemology rests on principles given in the rational nature itself. This gives the basis of Intuitionism, and further is the source of German Idealism.

The opposite theory is named Sensationalism, or Empiricism, as it makes all knowledge depend on experience, or on "Sensation and Reflection," Locke. In accordance with this theory, there is "nothing in intelligence which was not previously in the sensory." Here, Epistemology rests on the sensibility of the nerve-system, on the sensations resulting from contact with the external, and on consciousness of our inner states.

This sharp contrast favours extreme positions. It has tempted Rationalism to undervalue sensory impression, as if it were a mere "blur" on a sensitive surface; and has tempted

Empiricism to speak as if the knowledge which begins in experience, were perfected by it, or even as if mind were only an empty vessel being filled with material through sensory channels.

Rationalism is apt to become an exaggeration of one side of Epistemology. Abstracting sensory experience, it seeks, as pure Idealism, to develop a philosophy of Being, in neglect of the physical and psychic basis of experience. Human life can, indeed, be interpreted only as a life according to reason; Nature can be understood only when we seek "the thinking view of things;" but philosophy is not independent of sensibility, nor can it systematise the irrational. It is equally impossible to maintain the subordination of physical existence to mind, and the subordination of mind to the physical. The Transcendental in knowledge may be held as fact; but a philosophy which figures as a pure Transcendentalism contradicts itself.

REAL (The), (*res*, a thing).—The existing, whether in consciousness, or beyond. In contrast with the real, we speak of the potential, the nominal, the logical, as these are conceivable representations in the exercise of thought. Hamilton, *Reid's Works*, note B, p. 805.

The nature of Reality is the leading question in Metaphysics. Plato rises to the Ideal world, as the real. Aristotle's *Metaphysics*, or first philosophy, is concerned with Being itself.

Real cognition must be a knowledge of reality, existence being presupposed. Reality is equally beyond us, and within us. To restrict to either is an abstraction.

Divergence in usage, and in philosophy, has been considerable. "The conception of reality can be nothing more than some mode of consciousness." "By reality we mean persistence in consciousness." Herbert Spencer, *First Principles*, 160.

"Ideas are subsequent to reality." Lotze, *Metaphysic*, transl., 73. Yet, these are realities in consciousness, even while they are to us symbols of existence beyond. Green maintains that the *Real* consists in Relations. *Prolegomena to Ethics*, bk. i. There is also a sense in which it holds true, that "the real is inaccessible by way of ideas." Bradley, *Logic*, § 20, p. 63.

“ We escape from ideas, and from mere universals, by inference to the real, which appears in perception.” *Ib.*, § 28, p. 69.

“ Reality and Thought,”—Bradley, *Mind*, xiii. 370. “ The real as concerned with the Related,”—Green, *Prolegomena to Ethics*, 16 ; Green, Introduction to *Hume’s Works*, § 31, vol. i. 24 ; Mansel, *Metaphysics* ; Bosanquet, *Knowledge and Reality*.

REALISM.—The Scholastic doctrine that general notions, such as those of *genus* and *species*, represent *real things*, existing independently of our conceptions and expressions. The doctrine is that universals are prior in existence to particulars, *universalia ante res*. The doctrine is the expression of the relation of Scholastic thought to the philosophy of Plato in the first instance, and to that of Aristotle, as guide in dialectics. Anselm, who was leader of the Realists, about A.D. 1070, argued on this basis, that universals exist independently of individual things. *Monologium* 6, 1033.

Antagonistic to this is the doctrine of the Nominalists, that genera and species are only *names* for our classifications of things, not real things. Roscellinus.

Intermediate is the doctrine of the Conceptualists, that universals are in the particulars, *universalia in rebus*. Abelard, 6, 1079. Article “ Scholasticism,” by Prof. Seth, *Ency. Brit.*, 9th ed.

REALISM, Natural.—A doctrine of perception, that there is in this act of mind an immediate or intuitive cognition of the external object ; that the object perceived is the external reality, not any idea or image of that reality. External perception is direct knowledge of the thing existing, not an immediate knowledge of some other thing, which represents it.

Realism thus stands in contrast with epistemological idealism. “ A definite separation must be made between psychological and epistemological points of view. . . . The final principles which the analysis of our knowledge affords, are the final assumptions attainable for us. All explanations, proofs, and hypotheses . . . rest upon these. It is the business of Epistemology, but not of psychology, to inquire how far this logical basis of all our knowledge is comprehensive.” Höfding, *Outlines of Psychology*, p. 355, Tr.

REASON (*Ratio*, a reckoning, from *reor*, to calculate, to think).—This term is used as a general name for the intellectual or interpreting nature of man—as when we speak of “human reason,” as the distinctive characteristic of the race. “Reason” is the faculty of the higher intuitions, or of *a priori* truth, in contrast with “Reasoning.” Its popular use is to distinguish our power of comparison, computation, and inference.

The Scottish School had attributed the two phases of knowledge to one power. “The same degree of understanding which makes a man capable of acting with common prudence in the conduct of life, makes him capable of discovering what is true and what is false in matters that are self-evident, and which he distinctly apprehends.” Reid, *Intell. Powers*, Essay vi. c. 2.

The result of Kant's critical philosophy, distinguishing *a posteriori* from *a priori* in consciousness, has been the technical use of “Reason,” as the faculty of the higher intuitions.

“Reason is the faculty which furnishes us with the principles of knowledge *a priori*.” Kant, *Pure Reason*, Introduction, vii., Meiklejohn's transl., p. 15. Its proper function is “to prescribe rules of discipline to all the other powers of the mind.” *Ib.* 433 (*Kritik*, 437). “Our reason is, subjectively considered, itself a system, and, in the sphere of mere conceptions, a system of investigation according to principles of unity, the material being supplied by experience alone.” *Ib.*, 449.

REASONING.—The rationalising process; logical procedure of the understanding, leading to inference, whether from facts, or from general principles.

“In one of its acceptations it means syllogising, or the mode of inference which may be called concluding from generals to particulars. In another of its senses, to reason is simply to infer any assertion from assertions already admitted; and in this sense Induction is as much entitled to be called *reasoning* as the demonstrations of geometry.” Mill, *Logic*, Introd., § 2. “To reason directly from particulars to particulars is wholly impossible.” Bradley, *Logic*, 332.

RECEPT.—A compound “idea” received directly in the concrete, repeated in experience. “As perception literally

means a taking wholly, and conception a taking together, reception means *a taking again*. Consequently a receipt is that which is taken again." Romanes, *Mental Evolution in Man*, p. 36. "At the bidding of certain stimuli from without, we construct that mental product which we call the object of sense. These mental constructions, I will call *constructs*." Lloyd Morgan, *Animal Life and Intelligence*, p. 312. "Neither *construct*, nor *receipt* seems to me a felicitous word; but poor as both are, they form a distinct addition to psychology. . . . Would such a word as *influent*, sound better than *receipt*?" James, *Text-Book of Psychology*, p. 368. Romanes illustrates "receipts," by the difference of manner in which water-fowl alight on land, from what is common with them when alighting on the water.

RECEPTIVITY.—The capability for impression belonging to the conscious life, which, associated with rational power, admits of progressive experience, and accumulation of knowledge. Receptivity illustrates mind as it is subordinated to environment, through action of the sensory.

RECTITUDE (*rectus*, straight; ὀρθός; *rectum factum*, that which is rightly done; *κατόρθωμα*).—Rightness; the quality of an action as determined by moral law. To define "rightness" by reference to Conscience is insufficient, appealing only to the mode of knowing, not to the thing known. "The authority of conscience" is an abbreviated form for "authority of the moral law as made known by conscience." Moral law is the ultimate rational basis of moral distinctions. The imperative belonging to its nature fixes obligation. For Latin usage, with Greek equivalents, Cicero, *De Finibus*, iii. c. 7 and c. 14.

REDINTEGRATION (Law of), (*re-integro*).—Reconstruction. "Parts of any total thought recalled into consciousness are apt to suggest the parts to which they were proximately related." Hamilton's *Reid*, p. 897. This is a summary statement of the *Laws of Association*.

REDUCTION.—The first figure of syllogism is called *perfect*; as it proceeds directly on the *Dictum de omni*, &c., and it arranges the terms in the most natural order. All arguments, though stated originally in any of the other Figures,

may be, in one way or other, brought into some of the four moods in the first figure: and a syllogism is, in that case, said to be *reduced* (i.e., to the First Figure). . . . Reduction is of two kinds: *Direct* or *ostensive*, which consists in bringing the premises of the original syllogism to a corresponding mood in the First Figure, by transposition or conversion of the premises; *Indirect*, or *reductio per impossibile* or *ad absurdum*, by which we prove (in the First Figure) not directly that the original conclusion is *true*, but that it *cannot be false*; i.e., that an absurdity would follow from the supposition of its being false.

REFLECTION (*re-flecto*, to bend back).—Attention directed upon the facts of personal experience: thought concentrated on any theme or problem.

According to Locke, *Sensation* and *Reflection* are the sources of all our knowledge. "By *reflection* I would be understood to mean that notice which the mind takes of its own operations, and the manner of them; by reason whereof there come to be ideas of these operations in the understanding." Locke, *Essay*, bk. ii. ch. i. sec. 4.

"If the first awakening of comparative thought is a movement of perception, active, indeed, but confined to each particular case, and not distinctly conscious of its own procedure, the reflection that embraces in itself these instinctive efforts in their connection as energies of the Ego, and detaches them in their universal form from the particular cases of their application, undoubtedly forms a new step of development." Lotze, *Microcosmus*, Tr., i. 654.

REFLEX ACTION.—Muscular activity, resulting directly from an impression made upon the sensitive organism,—the motor nerves being excited by sudden excitation of nerves of sensation. The phrase is applied to action of subordinate divisions of the sensory system, without consciousness,—the movement being effected through a subordinate nerve-centre, named "excito-motor" in contrast with "sensori-motor," which implies consciousness of the impression. Carpenter's *Mental Physiology*, 7th ed., p. 507; Forster's *Physiology*, 179; Ferrier, *Functions of Brain*, 68; Calderwood, *Mind and Brain*, 202.

Whether consciousness be involved or not, the action of the motor system following on sensory stimuli is in all cases reflex. On the other hand, we observe non-continuity in nerve stimulation from the sensory system to the motor, when thought intervenes as to the expedient, or as to the right.

REFLEX SENSE.—Descriptive of a mental power, analogous to the senses, by which we have a perception of truth concerning relations. Its exercise is an act of perception, but it depends upon the understanding for its materials.

The phrase is employed by Shaftesbury, *Characteristics*, and by Hutcheson, *Inquiry into Beauty and Virtue*. It belongs to a transition period, when *feeling* was being abandoned as the key to our recognition of moral distinctions, and *thought* was being preferred. Both authors regard conscience as a Reflex Sense. We see moral truth as by an inner sense, analogous to Vision. The position involves a mixed representation, but is preparatory for more exact views of Intuition.

REGULATIVE (German, *Regulativ*).—Applied to any faculty, or process in consciousness, which directs thought or conduct,—thus Hamilton's "Regulative Faculty," or faculty of first principles. *Metaph.*, ii. 347. It is Kant's designation for conditions of intelligence which are not in themselves tests of objective truth.

Kant divides the table of the categories into two—(1) *Mathematical*, Quantity and Quality, applicable to "objects of intuition," and (2) *Dynamical*, Relation and Modality, applicable to "the existence of objects either *in relation* to one another, or to the understanding." This second division Kant regards as *regulative*,—affording "analogies of experience," and "postulates of empirical thought;" while the two former,—Quantity and Quality,—are *constitutive* of objects. Kant's *Pure Reason*, Meiklejohn, pp. 67, 134, 407; Stirling's *Text-Book to Kant*, pp. 197, 285.

This term also applies to Kant's transcendental Ideas of the Reason,—God, the Soul, and the World. "Pure reason never relates *immediately* to objects, but to the *conceptions* of these contained in the understanding. . . . They have in truth no relation to any object in experience, for the very reason that

they are only ideas." Kant's *Pure Reason*, Meiklejohn's Tr., pp. 233-4. "I maintain that transcendental ideas can never be employed as constitutive ideas, that they cannot be conceptions of objects. . . . But, on the other hand, they are capable of an admirable and indispensably necessary application to objects, —as regulative ideas, directing the understanding to a certain aim, the guiding lines towards which all its laws proceed, and in which they all meet in one point. This point, though a mere idea (*foculus imaginarius*), . . . for it lies beyond the sphere of possible experience, —serves notwithstanding to give to these the greatest possible unity combined with the greatest possible extension." *Ib.*, p. 395.

RELATION (*relatio*, a carrying back; *re-fero*, to bear back).—The connecting together things or thoughts, or things with thoughts. In reference to material things, the relation may be one of continuity; to occurrences, one of succession; to biology, of structure and function; to mind, of feelings and thoughts, of motives and decisions.

"Any sort of connection which is perceived or imagined between two or more things, or any comparison which is made by the mind, is a *relation*." Taylor, *Elements of Thought*.

Relations may be observed in the outer world, or known in consciousness. The category of relation is fundamental for use of the understanding, as it is concerned with comparisons. Thus, the relation of cause and effect guides in interpretation of all occurrences. Thought is in all its forms a constructing of relations.

"Sensational consciousness is something *quasi*-material, hardly cognitive. . . . *Relating* consciousness is quite the reverse, and the mystery of it is unspeakable." James, *Prins. of Psychol.*, i. 687; Lotze, *Logic*, Transl., 472. On *Relation* as the essential nature of *Reality*:—Green, *Prolegomena to Ethics*, pt. i. p. 21; Bradley, *Principles of Logic*, 225; Bosanquet, *Knowledge and Reality*, 159.

RELATIVITY OF KNOWLEDGE.—The doctrine that the nature and extent of our knowledge is determined not merely by the qualities of the objects, but also by the conditions of our cognitive powers. This is the common position

for all philosophy. We do not know the external object directly, but by the impressions made on our sensibilities, more particularly on the organs of special sense. The knowledge we have is, however, true knowledge of the thing, by that which is given immediately in the sensory impressions, or which is obtained mediately through inference from these data.

The doctrine of Kant is that intelligence by application of its own "forms" to the "intuitions" of the sensory, constitutes the object of knowledge, but "the thing in itself" cannot be known. *Pure Reason*, 1. This does not escape Hume's sceptical reasoning. Hume affirms that if the forms of intelligence constitute an object in consciousness, this object is only a part in the series, and seems to leave externality, and our supposed relation to it unexplained.

The sensationalism of Locke, and the idealism of Berkeley involved this perplexity. "All ideas come from sensation and reflection," was Locke's position. *Essay*, bk. ii. c. 1. Let us suppose the mind to be "without any ideas, how comes it to be furnished?" "To this I answer in one word, from experience." *Ib.* So it is with Berkeley. "The objects of human knowledge are either ideas actually imprinted on the senses; or else such as are perceived by attending to the passions and operations of the mind." *Princip. of Hum. Knowledge*, pt. i. p. 1. So it is with Hume in supporting a sceptical conclusion.

"Nothing is ever really present with the mind but its perceptions, or impressions, and ideas." Hume, *Treatise on Human Nature*, bk. i. pt. ii. sec. 6. "It cannot be from any of the impressions that the idea of self is derived, and consequently there is no such idea," bk. i. pt. iv. sec. 6. Hence, Hume argues "all knowledge degenerates into probability;" yet he admits that "our reason must be considered as a kind of cause, of which truth is the natural effect." *Treatise*, bk. i. part iv. sec. 1; ed. 1739, vol. i. p. 315. John S. Mill, *Exam. of Hamilton*, 3rd ed., p. 7.

Kant says that "the undetermined object of an empirical intuition is called *phenomenon*. That which in the phenomenon corresponds to the sensation, I term its *matter*; but that which effects that the content of the phenomenon can be arranged

under certain relations, I call its form." *Pure Reason*, Meiklejohn's transl., 21.

RELIGION (*religio*, reverence ; *religo* ; *re*, back ; *ligo*, to bind ; *relego*, by some ; *re*, back ; *lego*, to read).—Homage to the Deity in all the forms which pertain to spiritual life. This includes everything that belongs to the culture and expression of piety. Religion stands in contrast with Theology, which is the theory of the Divine nature and government.

There is some diversity as to the derivation of the term, though that which is above placed first is generally accepted. According to Cicero, *De Nat. Deorum*, ii. 28, it is compounded of *re* and *legere*, to read over again, to reflect upon the relations of life to the First Cause, and on the duties relating to the worship of the gods. According to Lactantius, *Div. Instit.*, it comes from *re-ligare*, to bind back, because in our relation to the Deity we find the true ground of obligation. Augustine, *De Vera Relig.*, gives the same derivation of the word.

Ethical Philosophy as concerned with the foundation of Virtue, includes "natural theology" on its theoretic side ; "natural religion" on its practical side.

"Seeing there are no signs, nor fruit of religion, but in man only, there is no cause to doubt, but that the seed of religion is also only in man." Hobbes, *Leviathan*, pt. i. c. 12 ; Works, Molesworth, vol. iii. 94.

The social effects of religion, present one of the leading questions in the philosophy of social life. Mill, *Essays on Religion*, p. 77. Benjamin Kidd, *Social Evolution*.

The newly awakened interest in the genesis of thought, has stimulated investigation as to the appearance of religious ideas, and also study of comparative religions. *The Sacred Books of the East*, edited by Max Müller ; *The Texts of Confucianism*, Legge ; *Chinese Buddhism*, Edkins ; *Hinduism and Christianity*, Robson ; Haug, *Essays on the Parsis* ; Muir, *Life of Mahomet* ; Edkins, *Early Spread of Religious Ideas in the Far East* ; Max Müller, *Introduc. to Science of Religion* ; Whitney, *Life and Growth of Language* ; John Muir, *Metrical Translations from Sanskrit Writers*.

RELIGION (Philosophy of).—A rational account of

Religion, on its subjective and also on its objective side. This must include the correlation of the religious consciousness with the other forms of human experience, and investigation of the rational basis on which the religious element in the consciousness rests. Descartes held that the idea of God is the certainty coming next to that of our own existence. Spinoza founded his philosophy of existence on the conception of the One Substance.

German thought specially has been quick to recognise the need for philosophic inquiry completing itself in a Philosophy of Religion. Towards the more deliberate investigation of the problem of Religion, Kant led the way, in *Die Religion innerhalb der Grenzen der blossen Vernunft*, 1793. "Religion within the province of bare Reason," Semple's transl. In this work, after dealing with an evil principle in consciousness, he discusses the foundation of a kingdom of God on the earth.

Schelling published *Bruno, oder über das natürliche und göttliche Princip der Dinge*, 1802. "Bruno, or On the natural and divine principle of Things."

Hegel includes religion with Ethic. "Man, no doubt just because it is his nature to think, is the only being that possesses law, religion, and morality." Hegel, *Logik* (Ency.), Intro., translated by Wallace, 3.

Philosophic thought is concerned with the basis in reason of the religious consciousness; the historic method is concerned with the modifications of religious thought and practice appearing in the world, and with discovery of the conditions accounting for their appearance. Each will prove a test of the other; while the philosophic is the essential and fundamental.

From the scientific point of view, that of Agnosticism, there may be, as in Spencer, a *negative* Philosophy of Religion, or the justification of "religious" emotion in presence of the Unknown and Unknowable. Spencer, *First Principles*, pt. i.

Kant, *Religion within the Limits of Pure Reason*; Hegel, *Philosophy of Religion*; Pfeiderer, *Philosophy of Religion*; J. Caird, *Philosophy of Religion*. On the Kantian and Hegelian schemes, Seth, *From Kant to Hegel*; Max Müller, *Introduc. to Science of Religion*; Schleiermacher, *On Religion*, Oman's transl.;

Tylor's *Primitive Culture*, i. 417; Hutchison Stirling, *Philosophy and Theology*; Flint, *Anti-Theistic Theories*; Martineau, *Study of Religion*; Robertson, *Early Religion of Israel*; E. Caird, *Evolution of Religion*.

REMEMBRANCE (*reminiscor*, to remember; recollection; *recolligo*, to gather together again).—Memory is a function of mind connected with acquisition of knowledge. Knowledge so presented in consciousness is recognised as knowledge which had previously been present.—*Vide* MEMORY, which is distinct from “Organic retentiveness.”

The Platonic doctrine of *Reminiscence* was the hypothesis that the knowledge of ideal truth is a recollection of what had been seen in a higher state. “They say that the soul of man is immortal, and at one time has an end, which they say is to die, and at another time is born again, but is never destroyed; . . . and having seen all things that there are, whether here or in Hades, has knowledge of them all, and it is no wonder she should be able to call to remembrance (*ἀναμνησθήναι*) all that she ever knew about virtue, and about everything.” Plato, *Meno*, 81; the *Phædo*, 75; Martineau, *Types of Ethical Theory*, ii. 72; Pater, *Plato and Platonism*, p. 57.

RESENTMENT.—Antagonism of feeling directed against an agent whose conduct involves violation of right. Such resentment is natural and spontaneous, and has its rational vindication in the moral law as the basis of human obligation.

“The only way in which our reason and understanding can raise anger, is by representing to our mind injustice or injury of some kind or other.” Butler, *Sermon viii*. Butler distinguishes between sudden anger and settled resentment. Antagonism of good and evil in conduct, has its emotional correlative in the antithesis of admiration and resentment in consciousness. Under moral law, resentment must exclude *malice*, which is a phase of feeling, altogether evil.

RESPONSIBILITY.—Accountability for conduct in the case of an agent possessing knowledge of moral law, with power to govern conduct in harmony with such law.

Responsibility is manifested in the natural relations of moral agents and in involuntary contracts made in harmony with moral

law. Our relations to the Moral Governor present the ultimate aspect of answerableness for personal conduct. Aristotle's *Ethics*, iii. 5 ; Reid's *Active Powers*, Essay iii. pt. iii. ch. vii. ; Lotze, *Practical Philosophy*, Ladd's Tr., p. 63 ; Bradley's *Ethical Studies*, p. 5 ; Maudsley, *Responsibility in Mental Disease*.

RESTRAINTS UPON ACTION.—Emotions natural to man, which impose a check on the action of Thought. Wonder, Fear, or Grief, may arrest, or even paralyse, power of thought and of muscular activity.

These are natural restraints, presenting in consciousness the antithesis to the motive forces of our nature. As inhibition is powerful in the muscular system, so natural emotions are frequent and powerful restraints in the history of consciousness. Calderwood, *Handbook of Moral Philosophy*, p. 161.

REVERENCE (*reverentia, revereor*, to stand in awe, to honour).—Emotion awakened by intelligent appreciation of greatness, or of authority.

Kant uses the term to express the true attitude of man towards Moral Law. This is *pure* reverence ; which is not a passive feeling, but “an active emotion generated in the mind by an idea of reason.” *Metaphysic of Ethics*, Semple, p. 12.

Duty involves “objectively the law, and subjectively pure respect for this practical law, and consequently the maxim to follow this law even to the thwarting of all my inclinations.” Abbot's Transl.

Reverence for moral law comes early in experience. Reverence for God, as the source of all being, though it come later, is the broadest and deepest expression of this emotion.

RIGHT.—*Adjective*, the quality of an action which conforms with moral law. *Substantive*, the natural title of a person to undisturbed exercise of the powers of a moral agent. Inferentially, the title to possessions acquired by personal effort in recognition of moral freedom and responsibility.

In Jurisprudence, the substantive has a technical significance, leading to the use of the phrase “perfect rights,” to describe such rights as can be enforced under statute, or under “common law.” This distinction depends on the line of severance between Ethics and Jurisprudence.

The notion of rightness lies at the foundation of a philosophy of practice. "Rightness may be called the first moral ideal, because the question 'what should I do?' comes before the question 'what should I aim at?'" J. Grote, *Moral Ideals*, 35; Whewell, *Elements of Morality*, bk. i. sec. 84; Bradley, *Ethical Studies*, note on "Rights and Duties," p. 187; Austin, *Province of Jurisprudence*; Pollock, *Jurisprudence and Ethics*.

RULE (*regula*, a straight piece of wood; a rule; *regulo*, to rule, or govern).—A maxim prescribing means to attain some end. *Law* is a wider term, applicable to physical existence, as well as to spiritual. *Rule* can be interpreted only within the sphere of intelligence, applying to maxims for all varieties of human engagement. "A principle or maxim, which furnishes man with a sure and concise method of attaining to the end he proposes." Burlamaqui, *Principles of Natural Law*, pt. i. ch. v.; Price, *Review of Morals*, c. 6. Kant distinguishes Rules of Art, and Dictates of Prudence, from Laws (Commandments) of Morality. *Metaph. of Ethics*, Semple, 3rd ed., p. 27.

SANCTION (*sanctio*, a decree; *sancio*, to ratify or confirm).—Confirmation of a law or rule. It is primarily applied to the test of consequences, encouraging or discouraging, as these are confirmatory of moral law.

In Ethics, sanction is the test supplied in experience, as that upholds moral law. Law imposes obligation; sanction upholds the law's authority. Sanction includes reward and punishment, following in natural order. Sanction presupposes law; it cannot contribute towards a philosophy of the law's authority. Under Jurisprudence, Sanction is restricted to penalty. Bentham, *Principles of Morals and Legislation*, c. iii.

"The internal sanction of duty, whatever our standard of duty may be, is one and the same—a feeling in our own mind, a pain, more or less intense, attendant on a violation of duty." J. S. Mill, *Utilitarianism*, p. 41; Bain, *Moral Science*, c. 2; Fowler, *Progressive Morality*, p. 4; Austin, *Province of Jurisprudence Determined*.

SCEPTICISM (*σκέπτικός*, thoughtful; *σκέπτομαι*, to look about, so as to observe carefully).—Suspense of judgment, on account of insufficient evidence to warrant decision; more

commonly, on account of the limitation of knowledge and of our powers of knowing. This suspense properly stands associated with expectation of further evidence, or of more reliable reasoning. It is literally, looking around.

An absolute scepticism is impossible. The facts of consciousness are indubitable. When I doubt, I know that I doubt.

Scepticism is at the opposite extreme from Dogmatism. In philosophic character and tendency, it is altogether different from doubt used as a philosophic instrument, as by Descartes, with whom doubt was a defence against too easy assent; a constant demand for test of the conclusions being reached. Scepticism, on the other hand, distrusts the very instruments of knowing, and discredits the claims of evidence to warrant certainty. Absolute objective certainty being unattainable, Scepticism holds that, in the contradictions of the reason, truth is as much on one side as on the other—*οὐδὲν μᾶλλον*. Pyrrho, who flourished in Greece about 340 B.C., vindicated Scepticism, hence sometimes called Pyrrhonism. As a tendency, it existed in the teaching and spirit of the Sophists, especially in the maxim of Protagoras, "Man is the measure of all things." This gives a phenomenalism which favours doubt.

Scepticism, even when reasonable, is a halting which has its hazards, because of its depression of rational expectation. On one side it is favourable to intellectual life, stimulating inquiry; on the other, it is unfavourable, threatening atrophy of intellectual interest, or a finality unworthy of a rational nature.

Scepticism and Dogmatism are equally at variance with the spirit of philosophy, which presses towards the thinking view of things, expecting in wider knowledge more adequate data on which to reason. A Scepticism which distrusts the instruments of knowing is irrational. The Sceptical tendency which throws discredit on the senses, dwelling especially on the delusions which they occasion, has itself been discredited by the progress of observational science. The modern form of Scepticism is consequently modified to a limited Agnosticism, granting certainty to the testimony of the senses, but distrusting the action of the rational powers in their attempt to advance beyond actual observation. This also is being discredited in

turn, by regard to the scientific uses of imagination, and by acknowledgment of the scientific value of rational hypothesis. These being acknowledged, the value of Metaphysical speculation cannot be disputed.

Of the Sceptics strictly so called, Ueberweg distinguishes three schools:—(1) Pyrrho and his followers; (2) the Middle Academy, or the Second and Third Academic Schools; (3) the Later Sceptics, who again made the teaching of Pyrrho their basis. Of these the first and the third were extreme; the second, less radical, distinguished various degrees of probability.

Modern Scepticism is represented by Hume, who, in his *Treatise on Human Nature*, following out Locke's Epistemology, resolves Mind equally with Matter into mere Feeling; but he at the same time grants, that "those who have denied the reality of moral distinctions may be ranked among the disingenuous disputants." *Inquiry, Essays*, ii. p. 223.

Ueberweg's *History*, Greek, i. 91, 212; Modern, ii. 130; Schwegler's *History*, pp. 134 and 181, with p. 415; Zeller's *Stoics, Epicureans, and Sceptics*, pt. iv. p. 486. See Kant's references to Hume, *Pure Reason*; and *Prolegomena*, iii., Bax's Tr.; *Life of Kant* by Stuckenbergh, ch. viii.; Green's *General Introduction to Hume's Works*; Lotze, *Logic*, p. 414; Balfour's *Defence of Philosophic Doubt*; Mill, *Essays on Religion*, p. 120.

SCHEMATISM, (*σχῆμα*, shape).—Kant's term for "the procedure of the understanding with schemata." The *schema* is "the formal and pure condition of sensibility," the image of the thing with which the imagination aids the understanding in its procedure. Schema is thus employed by Kant to express the manner in which the categories of the Understanding are brought to bear, as "principles," on the phenomena of sensuous perception. These are, in their nature, "quite heterogeneous." For the application of the one to the other, there is required a *tertium quid*, "which on the one side is homogeneous with the category, and on the other with the phenomenon. . . . This mediating representation must be *pure* (without empirical content), yet must on the one side be *intellectual*, on the other *sensuous*. Such a representation is the transcendental *schema*." Kant, *Pure Reason*, Meiklejohn's Tr., pp. 107–113;

Stirling, *Text-Book to Kant*, pp. 248–256 ; E. Caird, *Philosophy of Kant*, i. 431 ; Adamson, *Philos. of Kant*, 53.

Kant refers *Schematism* to a distinct "faculty," that of the *transcendental* or *productive imagination*. While the synthesis of the Forms of Intuition is *sensuous*, and the synthesis of the Categories of Understanding is *intellectual*, the synthesis of Imagination is *figurative* (*synthesis speciosa*). It brings the unity of apperception to bear upon the universal form of intuition, that of Time. The categories are the "rules" of its procedure ; but in its actual operation they are not brought into consciousness. "This schematism . . . is an art hidden in the depths of the human soul, whose true modes of action we shall only with difficulty discover and unveil." Meiklejohn's Tr., 109.

The Schema is not to be compared with the image or type ; it is rather "a general receipt for a whole infinitude of types," e.g., "no *image* could ever be equal to our conception of a *triangle in general*. For it could never attain to the generalness of the conception. . . . The schema of a triangle can exist nowhere else than in thought, and it indicates a rule of the synthesis of the imagination in regard to pure figures in space." It is, "as it were, a monogram of the pure imagination *à priori*."

SCHOLASTICISM.—The phrase "Scholastic Philosophy" denotes a *period*, rather than a *system* of philosophy. Scholasticism covers the teaching of the schools during the Middle Ages, from the 9th century to the close of the 15th, mainly founded on the Logic of Aristotle. It is specially distinguished by the discussion between the Nominalists and Realists.

Its two periods are thus marked out by Ueberweg:—"(1) The commencement of Scholasticism, or the accommodation of the Aristotelian logic and of Neo-Platonic philosophy to the doctrine of the Church, from John Scotus Erigena to the Amalricans, or from the 9th till the beginning of the 13th century ; (2) the complete development and widest extension of Scholasticism, or the combination of the Aristotelian philosophy, which had now become fully known, with the dogmas of the Church, from Alexander of Hales to the close of the Middle Ages." *History of Philosophy*, Morris's transl., i. 355.

Besides John Scotus, the great leaders were Abelard, Albertus Magnus, Thomas Aquinas, Duns Scotus, Raymond Lully, Roger Bacon, and William of Occam.

Cousin, *Fragmens Philosophiques*, tom. iii., Paris, 1840; Schwegler's *History*, 8th ed., p. 144; Hampden, *Scholastic Philosophy*; Maurice, *Mediæval Philosophy*; Hallam, *Middle Ages*, iii. 426, ch. ix. pt. 2; Seth's Art., *Ency. Brit.*, 9th ed.

SCIENCE (*Scientia*, ἐπιστήμη).—Rationalised knowledge of observed facts, concerned mainly with the laws regulating occurrences. In its widest application, it is the bringing of the manifold phenomena of Nature to order and system by discovery of the hidden conditions of existence. We distinguish "observational sciences" from "exact science," such as mathematics, as all departments of the former depend for a beginning on a large accumulation of facts from which induction proceeds, whereas exact science depends on axiomatic truth.

Science is distinguished from Philosophy by reservation of the latter to the sphere of mind, and to the Metaphysical Speculation concerned with Being in general, or with the Universe as the grand total of correlated existence, and with Transcendent Being.

SECULARISM (*secularis*, from *seculum*, the age).—The theory of human life which judges of its interests by reference to its surroundings, and specially to the spirit of the age, as concerned with immediate good. It "may be regarded as the theory of life or conduct, which flows from the theory of belief or knowledge, that constitutes the substance of Positivism." Flint, *Anti-Theistic Theories*, p. 211. It does not imply Atheism, though that is frequently its accompaniment. As to the relation of Secularism to Religion, there is "a fundamental difference of opinion among Secularists." *Ib.*, lect. vi. In app. xxiii, 509, Flint sketches the rise of Secularism in the writings of Jeremy Bentham, James Mill, Thomas Paine, Robert Taylor, Richard Carlile, Robert Owen, and others.

SELF-CONSCIOUSNESS.—The knowledge which the mind has of itself in every phase of its experience. Each state is a subjective state, known to the person as his own. Consciousness is the knowledge of each state as his, with the

knowledge of himself, as the subject of experience, and as the observer of this experience.

In this self-consciousness, Descartes saw the primary indubitable fact. "I think, therefore I am;" that is, "I am thinking;" I know that I am so engaged: doubt is here impossible. To doubt is to refute doubt as to the reliability of self-consciousness. Consciousness of the mind's own feelings and operations cannot be disbelieved.

The Knowing Self cannot know anything without knowing itself as the knower. This is apperception. Such knowledge is, however, only phenomenal and fragmentary,—a knowledge of self as engaged in a particular exercise, sustained by such self-knowledge as the past has supplied. What the Self is, in the fulness of its being, is not known to any of us. The mystery of our being remains.

But personal-identity is known to us as the condition of intelligent life. "Only because I can connect a variety of given representations in one consciousness, is it possible that I can represent to myself the identity of consciousness in these representations." Kant, *Pure Reason*, Meiklejohn's transl., 82. In self-regulation of conduct, and all that is involved in it, we have extended knowledge of our personality. "My vocation as moral, and whatever is involved in the consciousness thereof, is the one immediate certainty that is given to me as conscious of Self,—the one thing which makes me for myself a reality." Kant, *Werke*, v. 210. "Since I am at the same time in all my sensations, conceptions, and states of consciousness, thought is everywhere present." Hegel, *Logic*, Wallace's Tr., p. 32.

E. Caird's *Hegel*, ch. viii. p. 151; Ferrier's *Metaphysics*. The Idea of Self,—Sully, *Human Mind*, i. 475; Dewey, *Mind*, xv. 58; James, *Principles of Psychol.*, i. 291. Difficulty of apprehending Thought as a purely spiritual activity,—James, i. 299.

SELF-EVIDENCE.—Carrying in itself the evidence of truth. A self-evident proposition is one needing only to have its terms understood to be accepted as true. This is the characteristic of necessary or universal truth; it neither needs proof, nor admits of it. The recognition of such truth is implied in all intellectual procedure, and in all regulation of

conduct, by reference to the antithesis of right and wrong. This was the main feature in Reid's answer to Hume.

SELFISHNESS "consists not in the indulging of this or that particular propensity, but in disregarding, for the sake of *any* kind of personal gratification or advantage, the rights or the feelings of other men." On "the radical evil in human nature," Kant, *Religion within the Limits of mere Reason*, Part i.

SELF-LOVE.—A rational regard to one's own good. Under this term are included all principles of our nature prompting us to seek our own good. It is used by Butler in two applications:—(1) as a principle co-ordinate with Benevolence, *i.e.*, as a conscious principle of voluntary action,—*Upon Human Nature*, Sermon i.; (2) as an instinctive disposition,—*Analogy of Religion*. Self-love and any particular passion may be joined together. *Sermons*, pref. Sermon xi.

"We have to distinguish self-love, the 'general desire that every man hath of his own happiness' or pleasure, from the particular affections, passions, and appetites directed to external objects, which are 'necessarily presupposed' in 'the very idea of an interested pursuit,' since there would be no pleasure for self-love to aim at, if there were no pre-existing desires directed towards objects other than pleasure, in the satisfaction of which pleasure consists." Sidgwick's *Outlines of History of Ethics*, p. 189.

According to Hobbes, *Leviathan*, pt. i. c. vi., self-love is the basis of all action. Of Ethical theories founded on Happiness, one division is *Egoistic*, known as the Self-regarding; another division, *Altruistic*, making the good of others the criterion of right. Utilitarianism has developed into the latter.

"All minds must have come, by the way of the survival of the fittest, if by no directer path, to take an intense interest in the bodies to which they are yoked, altogether apart from any interest in the Pure Ego which they also possess." James, *Text-Book of Psychology*, p. 194.

The Hegelian or Neo-Kantian School deviates from Kant's Categorical Imperative, to treat of fulfilment of desire, in self-realisation, as the basis of all action; but not without regard to

the "Self," being the member of an infinite whole. Bradley, *Ethical Studies*, 73; Green, *Prolegomena to Ethics*, 96.

Motive is "the consciousness of an object which the man seeks in doing the act. This object, however, as an object of will, is not merely one of the objects of desire or aversion, of which the man was conscious before he willed. It is a particular self-satisfaction to be gained in attaining one of these objects, or a combination of them. The 'motive' which the act of will expresses is the desire for this self-satisfaction." Green, *Prolegomena to Ethics*, p. 107, § 104.

SELF-PRESERVATION (Instinct of).—Involuntary shrinking from danger which belongs to organic life, and is manifested primarily in reflex action. As suffering induces recoil, fear induces pause, caution, flight, for escape from the presence of that which induces fear. In the case of gregarious animals, the impulse of fear acts on centres of vocalisation, giving the danger-signal. "The instinct of self-preservation is not felt except in the presence of danger." Darwin's *Descent of Man*, pt. i. ch. iv. p. 112. It is common to man, with the animals. But there is with him a vastly extended range for application of this instinct, on account of the foresight which thought involves.

Ethical considerations intervene, introducing regard to the safety of others as an essential part of duty. On this account, involuntary impulse ceases to rule, and voluntary determination is made to depend upon law regulating the play of natural impulse.

SELF-REALISATION.—The Hegelian formula of moral obligation, springing out of a scheme of rational evolution. "Be a person." Hegel, *Philosophie des Rechts*, sec. 36.

"Realise thy true self." Being a Person, realise by exercise of will the idea of Personality. "I am morally realised, not until my personal self has utterly ceased to be my exclusive self, is no more a will which is outside others' wills, but finds in the world of others nothing but self. 'Realise yourself as an infinite whole,' means 'Realise yourself as the self-conscious member of an infinite whole, by realising that whole in yourself.'" Bradley, *Ethical Studies*, p. 73. "Hence, that all will-

ing is self-realisation, is seen not to be in collision with morality." *Ib.*, p. 77; cf. Essay ii., *passim*; Green, *Prolegomena to Ethics*, *passim*.

SEMI-CIRCULAR CANALS.—A threefold series of canals, situated within the inner ear, having five openings towards the utriculus, or wider central chamber. In each canal there is a widening of the opening at one end. The outer structure of these canals is bone. Within, there is a membranous structure, floating in clear fluid. By these canals sensibility to rotatory motion is secured. Calderwood, *Mind and Brain*, p. 73.

SENSATION.—The experience resulting from impression on any part of the sensitive organism, *i.e.*, from excitation by contact of an external object with any sensory nerve or set of nerves. Sensation is the simplest element in consciousness. With this we must begin as the primordial fact in experience. By reference to the special senses, we have distinctive sensations, such as smell-sensations. All sensations are impressions known in consciousness.

"The capacity for receiving representations (receptivity) through the mode in which we are affected by objects, is called *Sensibility*." Kant, *Pure Reason*, Meiklejohn's Tr., p. 21. "That which in the phenomenon corresponds to the sensation, I term its matter." *Ib.*

The physiology of sensation, molecular action within a nerve-fibre, clearly shows that sensation does not supply an exact likeness of an object, and does not in itself necessitate any presentation of an individual object. The chill resulting from a sudden gust of wind, the sting of a nettle, the bite of a mosquito, illustrate experience for which such presentation is not required. There is a "false descriptive psychology involved in the statement that the only things we can mentally picture are individuals completely determinate in all regards." James, *Principles of Psychology*, i. 471.

Sensation is the prerequisite for perception. "Perception always involves sensation as a portion of itself; and sensation, in turn, never takes place in adult life without perception also being there. They are therefore names for different cognitive functions, not for different sorts of mental fact. The nearer

the object cognised comes to being a simple quality, like 'hot,' 'cold,' . . . the more the state of mind approaches pure sensation." *Ib.*, ii. p. 1.

The error of Locke, developing into the scepticism of Hume, was the treatment of sensations as if they were single and separate; as if Ideas passed into the mind along the sensory fibres. Hence the language of Hume. "All events seem entirely loose and separate. One event follows another; but we never can observe any tie between them. They seem *conjoined*, but never *connected*." *Inquiry*, sec. vii. part 2. Kant has rendered special service to philosophy by setting about the inquiry, what is meant by "*conjoined*"? Green has dealt very fully with Hume's position as to "unrelated impressions." Intro. to *Hume's Works*, vol. i. p. 19.

SENSATIONALISM.—The theory which makes sensation the sole origin of human knowledge; and regards sensibility as the source from which all mental power is developed. Its formula is—*nihil est in intellectu, nisi prius fuerit in sensu*. Locke says:—"All ideas come from sensation or reflection." This is the type of theory to which the evolutionist is shut up, who would maintain that mind has been evolved from matter. Its leading positions are these:—That sensation and consciousness are the same,—that sensations repeat themselves, so as to become familiar,—that recurring sensations become associated, and thus afford the conditions of rational life, assuming the different aspects of intellectual, volitional, and emotional experience. Its perplexity lies in the contrast between *sensus* and *intellectus*,—in the regard to present and past, in the comparison of impressions, and in the generalisations and inductions which are the products of intellectual action.

Leibnitz says,—*Nihil est in intellectu, etc. . . . nisi ipse intellectus*. The Rational School holds that Intelligence is a distinct power, inexplicable by reference to sensation, while sensory experience is inexplicable save by exercise of Intelligence on principles original to the rational nature. After Locke and Hume, see Herbert Spencer, *Psychology*; James Mill, *Analysis*; J. S. Mill, *Exam. of Hamilton's Philos.*; Bain, *Senses and Intellect*; Cycles, *Process of Human Experience*.

SENSE, GENERAL and SPECIAL.—The physical experience dependent on the action of sensory nerves. General, is that which belongs to the fibres spread over all parts of the organism; Special, is that connected with a distinct terminal arrangement suited to impressions of different kinds, such as sound and light.

See references under *Experimental Psychology*. George Wilson, *Five Gateways of Knowledge*; Thomson (Lord Kelvin), *Six Gateways of Knowledge*; *Nature*, vol. xxix. 438, 462; Preyer's *Mind of the Child*, "The Senses and the Will."

SENSIBILITY (τὸ αἰσθητικόν).—Used in two senses. (1) Susceptibility belonging to the nerves of sensation. This is the prerequisite for Sensation. (2) Capacity of feeling belonging to mind. "Emotional susceptibility," as distinguished from intellect and will.

SENSIBLES, COMMON and PROPER.—Aristotle distinguished *sensibles* into *common* and *proper*. *De Anima*, lib. ii. ch. vi., lib. iii. ch. i.; *De Sensu et Sensibili*, ch. i.

The *proper sensibles* are those which are peculiar to one sense.

SENSORIUM (αἰσθητήριον).—An organ of sense. The portion of the cerebrum in which the general nerves of sensibility have their centre.

SENSORI-MOTOR.—Applied to structure of the nerve system, and also to its activity. (1) The combination of the two sides of the nerve-system in all living organism. The one side consists of the sensory nerves; the other, of the motor nerves. These two sides constitute one system—the Sensori-Motor. (2) When molecular movement is transmitted along a sensory line, and passes over to a motor line, this is Sensori-motor activity; its result being muscular movement. Carpenter, *Mental Physiology*, ch. ii.; Calderwood, *Mind and Brain*, ch. iii. and ix.

SENSUS COMMUNIS (κοινὴ αἴσθησις).—Employed by Aristotle and the Peripatetics to denote the faculty in which the various sensory impressions are reduced to unity. Aristotle, *De Anima*, bk. iii. ch. i. sec. 7; Hamilton, *Reid's Works*, p. 756.

“Common-sense” is a *vox signata* of the Scottish School, signifying “common knowledge” lying at the basis of acquired knowledge; axiomatic or universal truth, self-evident. This significance appears in the works of Reid; Dugald Stewart; Hamilton.

SENTIMENT.—Applicable to all phases of feeling depending on intellectual appreciation of quality. Conventionally, synonymous with opinion. This misapplication of the word has arisen from the fact that the individual view of the man determines the feelings arising spontaneously in consciousness. Hence we often say “my sentiments” as equivalent to “my opinions.” According to the nature of our opinions are the sentiments swaying conduct.

“The word *sentiment* in the English language never, as I conceive, signifies mere feeling, but *judgment accompanied with feeling*. . . . We speak of *sentiments* of respect, of esteem, of gratitude; but I never heard the pain of the gout, or any other severe feeling, called a *sentiment*.” Reid, *Active Powers*, Essay v. ch. vii.

The word expresses “those complex determinations of the mind which result from the co-operation of our rational powers and our moral feelings.” Dugald Stewart, *Essays*, note E, Hamilton’s ed.

The *Moral Sentiments* are those phases of mental sensibility consequent on measuring personal responsibility in view of moral law. These include self-esteem, shame, and remorse; esteem of others for their well-doing, and dislike of evil-doers. These sentiments depend on the exercise of intelligence, when dealing with the relations of conduct to law. Whether our sentiments are true to nature, depends on the validity of the judgment pronounced.

SIGHT.—The sensations in consciousness resulting from stimulation of the retina by the action of light reflected from a surface of a size suited to the terminal organ of vision. The organ being, by a variety of muscular arrangements, capable of adaptation to varying conditions, its capacity is not fixed by absolute size of the object, but rather by relative distance from the object. The effect of light is focused on the back part of

the retina, in the rods and cones, and stimulation is thence extended along the nerve of vision.

In the visual field, "objects are scattered, those being most clearly seen which are in the line of direct vision or centre of the field, and those which lie near the circumference most indistinct." Baldwin, *Elements of Psychology*, p. 57.

SIGN (*signum*, a mark).—That which is the representation of any thing or thought, whether naturally or by common consent, whether the sign be a mark, word, or expression on the countenance.

SLEEP.—Repose of organism, as associated in the higher structures with quiescence of the organ of vision. With closing of the organs of vision, there follows cessation of muscular efforts. Recuperation of nerve energy is thus secured by continuance of blood supply, without the usual expenditure of nerve energy. Carpenter, *Mental Physiology*, p. 568; Lotze, *Microcosmus*, i. 329; Calderwood, *Mind and Brain*, p. 417; Cappie, *Causation of Sleep*. Is the mind always active in sleep?—Hamilton, *Metaph.*, lect. xvii., vol. i. pp. 312–337.

"The quarrel between Descartes and Locke as to whether the mind ever sleeps is less near to solution than ever. . . . We are forced to admit that a part of consciousness may sever its connections with other parts and yet continue to be. On the whole it is best to abstain from a conclusion." James, *Principles of Psychology*, i. 213.

SOCIALISM.—"Collectivism." The theory of social organisation which advocates community of property. It is vindicated on the ground of common interests, even at the cost of surrendering personal and individual rights, natural and acquired.

In the various forms under which society has existed, private property, individual industry and enterprise, and the rights of marriage and of the family, have been recognised, as involved in the legitimate interpretation of moral law.

Several schemes of social rearrangement have been proposed, in which these principles have been either abandoned or seriously modified. These schemes may be comprehended under the general term of *socialism*. The motto of them all

is *solidarité*. They rest on a Humanitarian basis, insisting that the human race constitutes an organised whole, and that all efforts, as all results, should be for the common good. Under this theory, "Capital" is the object of special antipathy, on the allegation that it stimulates selfishness. Carl Marx, *Capital, a critical Analysis of Capitalist Production*; Lavelaye, *Le socialisme contemporain*, 6th ed., 1891; Kirkup, *History of Socialism*; Schäffle, *Quintessence of Socialism*; *Fabian Essays on Socialism*; Nicholson, *Principles of Political Economy*, i. 426.

Booth, *Saint Simon and Saint Simonism*; Booth, *Robert Owen*; Hyndman, *Historical Basis of Socialism in England*; Bax, *Ethics of Socialism*, Ritchie, *Darwinism and Politics*; E. Caird, *The Social Philosophy of Comte*; Lotze, *Pract. Philos.*, Ladd's Tr., 113.

T. E. Brown, *Studies in Modern Socialism* (Appleton, New York). *Bibliographie des Socialismus und Communismus*, by Joseph Stammhammer, Jena, 1893,—a very full guide to the literature of the subject,—pp. 303.

SOCIOLOGY.—Social Science, treating of the laws of the social development and organisation of the human race.

Herbert Spencer, regarding society as an organism evolving like other organisms, seeks to ascertain the laws of its evolution. *Principles of Sociology*. Benjamin Kidd, *Social Evolution*.

SOMNAMBULISM (*somnus*, sleep; *ambulo*, to walk).—Sleep-walking. The state in which the sleeper prosecutes active exercise, with observation of external objects, and definite purpose in his efforts. In this state, the eyes are commonly open, though bearing no evidence of exercise in perception. Yet external objects are recognised, and are avoided, or utilised, as occasion requires.

This state is largely induced by over-excitation of brain, whether in ordinary engagements, or under feverish disturbance. Hamilton, *Metaphysics*, lect. xvii.; Carpenter, *Mental Physiology*, pp. 591–599; Lotze, *Microcosmus*, i. 342; Calderwood, *Mind and Brain*, pp. 436–440.

SOPHISM.—"Sophism is a false argument. This word is not usually applied to mere errors in reasoning; but only to those erroneous reasonings of the fallacy of which the person who maintains them is, in some degree, conscious; and which

he endeavours to conceal from examination by subtlety, and by some ambiguity or other unfairness in the use of words." Taylor, *Elements of Thought*.

According to Aristotle, the *sophism* is a *sylogismus contentiosus*,—a syllogism framed not for enouncing or proving the truth, but for disputation. It is constructed so as to seem to warrant the conclusion, which it does not, but is faulty either in form or argument. Trendelenburg, *Elementa Log. Aristotle*, sec. 33; Reid, *Account of Aristotle's Logic*, ch. v. sec. 3.

"*Sophisms* are distinguished from *paralogisms*. The latter are involuntary mistakes in inference, while the former are intentionally fallacious arguments, whose object is to confuse or deceive." Lotze, *Logic*, § 249, transl., p. 291.

SOPHISTS.—The philosophic teachers immediately preceding Socrates, against whom he largely exerted his influence. The Sophists cannot be properly regarded as a school of philosophy. Under the common name were included those who were teachers of special departments of knowledge—grammarians and also rhetoricians, as well as those who devoted themselves specially to philosophy. The most prominent are Protagoras, Gorgias, Hippias, Prodicus. See Diog. Laert., *in loc.* The *Protagoras* of Plato; Zeller, *Pre-Socratic Philosophy*,—*Socrates and Socratic Schools*; Ritter, *History of Ancient Philosophy*; Hegel, *Geschichte der Philosophie*; Grote, *History of Greece*, viii. 474; Ferrier, *Greek Philosophy*. Defence of the Sophists, —Lewes, *History of Philosophy*, i. 105.

SORITES (*σωρός*, a heap).—An argument composed of an indeterminate number of propositions, so arranged that the predicate of the first becomes the subject of the second, the predicate of the second the subject of the third, and so on till the conclusion is reached, which unites the subject of the first with the predicate of the last.

SOUL (*ψυχή*, *anima*, breath).—The Latin has kept most closely to the primary meaning. Soul, *ψυχή*, has had a large unfolding of meaning. First, breath being the sign of life, "soul" becomes the principle of life. Beyond this, as the activity of life is the expression of intelligence, "soul" is mind, in a lower sense as the origin of physical activity. And at

length "soul" is equivalent to mind in the fulness of rational activity. Homer uses the term to designate the departed spirit, as Shakespeare uses "ghost." Out of these differences has come the tripartite view of human life, which has become popular, without being philosophical.

The history of philosophy carries an interpretation of *ψυχή*. According to Plato, the soul includes the rational, the irascible, and the appetent. This is the advanced Psychology of the Fourth Book of the *Republic*, 439.

In Aristotle's treatise *De Anima*, *Περὶ ψυχῆς*, "soul" is taken in the widest sense, including the nutritive or vegetative soul, the sensitive, the appetitive, the rational.

In later usage, *e.g.* Plutarch, "soul" is the cause of motion, "mind" is the source of order and system. In this case, *ψυχή* stands for the former; *πνεῦμα*, for the latter: *ψυχή* soul is often placed in contrast with *νοῦς*, the principle of intelligence.

When, among modern philosophers, a distinction is taken between *ψυχή* (Seele) *soul* and *πνεῦμα* (Geist) *spirit*, *soul* is an inferior phase of our intelligent nature, *spirit* is the purely rational. The nature of the Ego, Höffding, *Psychology*, 136. Metaphysical conception of the soul,—Lotze, *Metaphysic*, bk. iii. c. 1.

SOUL OF THE WORLD.—*Vide ANIMA MUNDI.*

SPACE (*spatium*).—Place. Extension in three Dimensions. The place occupied by extended objects, or the relation of such objects to each other; the conception which the mind has of such relation, constituting the common form under which all extended existence is known.

Leibnitz disputed the doctrine that space is a distinct entity, holding that the term expresses no more than the relations of coexisting extended bodies. Kant carried this further, finding in our conception of space, a form of the mind used in contemplation of the relations of extension. "Space is a necessary representation *à priori*, which serves for the foundation of all external intuitions." It "does not represent any property of objects as things in themselves, nor does it represent them in their relations to each other." . . . "Space is nothing else than the *form* of all phenomena of the external sense, that is, the subjective condition of the sensibility, under which

alone external intuition is possible." Kant, *Pure Reason*, Meiklejohn's Tr., pp. 23-26.

Hamilton, *Metaph.*, lect. xxiv., ii. 114, 191; Spencer, *First Principles*, pt. ii. ch. iii.; Shadworth Hodgson, *Time and Space*, p. 87; Lotze, *Metaph.*, p. 285; James, *Prins. of Psychol.*, ii. 134; Höffding, *Outlines of Psychology*, 190.

The conditions required to bring spatial subdivisions into consciousness are these: "that different points of the surface shall differ in the quality of their immanent sensibility;" a "capacity for partial stimulation," such as favours discrimination; and "a feeling of motion over any of our surfaces." James, *Principles of Psychology*, ii. 167.

SPECIES.—A group of individuals agreeing in some common character, and designated by a common name. In psychology, "species" has sometimes been used as equivalent to "images."

In *biological science*, distinction of *species* is founded on form, structure, and function. The principal characteristic of *species* in animals and vegetables, is the power to produce beings like themselves, who are also productive.

The hypothesis of evolution carries a denial of the fixedness of species. "Certainly no clear line of demarcation has as yet been drawn between species and sub-species,—that is, the forms which, in the opinion of some naturalists, come very near to, but do not quite arrive at, the rank of species; or again, between sub-species and well-marked varieties, or between lesser varieties and individual differences. These differences blend into each other by an insensible series; and a series impresses the mind with the idea of an actual passage." Darwin's *Origin of Species*, p. 42.

SPECULATIVE (*specular*, to regard attentively).—The characteristic of rational exercise, when contemplating purely intellectual ends. The term is specially applicable to rational exercise transcending observation and experience, and seeking the solution of the higher problems of Being, by use of the general principles of the understanding.

Speculative thought is opposed to thought concerned with the *practical*, and to *experimental* or *inductive* inquiry. *Speculative*

philosophy is metaphysics, concerned with the problems of Being, as these transcend observation and experience.

SPIRIT (*πνεῦμα*, *spiritus*).—The equivalent of “soul” or “mind,” in contrast with material substance; non-material. Spiritual Life is that whose distinctive function is Thought.

When a tripartite division of human nature is adopted,—body, soul, and spirit,—“Spirit” designates the rational life.—*Vide* SOUL.

“Does nature itself imply a spiritual principle?” Hegel, *Phænomenology of Spirit*, transl. Harris; *Jour. of Specul. Philos.*, vol. ii. 94; Green, *Prolegomena to Ethics*, p. 22; Calderwood, *Evolution and Man's Place in Nature*.

The distinctively spiritual, may be stated as the difference between “animal-mind” and “man-mind.” Laurie, *Institutes of Education*, 55 and 57.

SPONTANEITY (*sponte*, feeling).—The characteristic of an act springing from the single and immediate operation of vital energy, without design or purpose of the agent. Spontaneity stands contrasted with uniform sequence under fixed law in the physical world, and with voluntary activity in the spiritual.

It is also used to designate action which comes from the determination of an agent, independently of pressure from another,—*suo sponte*.

Leibnitz (*Opera*, tom. i. p. 459) explains “*spontaneity* to mean the true and real dependence of our actions on ourselves.”

Kant attributes *spontaneity* to Understanding, as opposed to the *receptivity* of sense. “We apply the term *sensibility* to the receptivity of the mind for impressions, in so far as it is in some way affected, and, on the other hand, we call the faculty of spontaneously producing representations, or the *spontaneity* of cognition, *understanding*.” *Pure Reason*, p. 45, Meiklejohn's transl.

STIMULUS.—Power which provides for excitation of vital energy. By *stimulus* in Physiology “is meant strictly an external agent (as material pressure) applied to a sense-organ (*e.g.*, the hand) which it is capable of exciting to activity. The word may be extended so as to include all excitants of mental activity.” Sully, *Outlines of Psychology*, p. 35, note.

STOICS (from *στοὰ*, a porch), "philosophers of the porch."—A school of philosophers led by Zeno, who founded the school towards the close of the third century before Christ. They were avowed followers of Socrates. Zeno's chief disciples were Cleanthes, Chrysippus, and Panætius. Stoicism found a favourable reception at Rome, where the chief Stoics were Seneca, Epictetus, and Marcus Aurelius Antoninus.

The Stoic philosophy was in its main features ethical. Its ethical formula was *ὁμολογουμένως τῇ φύσει ζῆν*,—"to live agreeably to nature;" and its interpretation of "nature" carried in it expressly this rule, that intelligence must govern, and that feelings should be brought into complete subjection, even to the extent of apathy. In its earlier stages, the school followed on the lines of the Aristotelic discussion concerning "the proper work of man;" and thence diverged, in disregard of "the mean," to require the suppression of desire, and the subordination of the human will to the recognised order of things in the universe. The practical effect appears in the popular phrase "Stoical indifference."

Diogenes Laertius, *Zeno*; Epictetus, and Marcus Aurelius; Zeller, *History of Greek Philosophy*, Stoics, Epicureans, and Sceptics; Ueberweg, *History of Philosophy*, Eng. transl., vol. i. pp. 185–200; Schwegler, *History of Philosophy*, pp. 123–131; Pollock, "Marcus Aurelius, and the Stoic Philosophy," *Mind*, iv. 47; Benn, *Greek Philosophers*, ii. 1; Scott, *Simple History of Ancient Philosophy*.

SUB-CONSCIOUS.—Applicable to any phase of mental activity clearly implied by results within consciousness, though the process leading to such activity is not directly recognised by us.

SUBJECT (*subjaceo*, to throw under; *ὑπόκειμαι*, to lie under).—The conscious-self, regarded as the thinking power, in contrast with the object, that about which it thinks, and which may exist apart from the mind. This is the strictly philosophic use of the word; that which is the basis of all experience; the underlying intelligence which is the condition of conscious life. Popularly, it is that about which a remark is made, or of which a discourse treats.

With Aristotle *ὑποκείμενον* signified the *subject* of a proposi-

tion and also substance. The Latins translated it *subjectum*. In the Middle Ages *subject* meant *substance*, and has this sense in Descartes and Spinoza. Kant and Fichte have given direction to philosophic usage:—*subject* is the mind which knows—*object* that which is known.

“The *subject* is properly *id in quo*; the *object*, *id circa quod*. Hence, in psychological language, the *subject*, absolutely, is the mind that knows or thinks, *i.e.*, the mind considered as the *subject* of knowledge or thought—the *object*, that which is known or thought about.” Hamilton, *Reid's Works*, p. 221, note.

SUBJECTIVE.—Belonging to the conscious life, thus including all mental phenomena. In Epistemology, the subjective element is that having its *source* in the mind itself, independently of sensory impression. By this distinction certain phenomena of consciousness are classified as original to mind. This is the distinction upon which the Intuitionist School founds, in its theory of knowledge.

In the wider sense, “the subjective” includes the whole of the self-conscious life,—the inner in human history. This “subjective world” is distinct from the outer world, which has no place in individual experience.

SUBLIME (The).—The vast, grand, and inaccessible in nature; the heroic in human life, manifesting vast endurance and self-command; the majestic and mysterious in the world's government, manifesting the presence of the Absolute.

Sublimity overawes, and is often accompanied with a feeling of fear, springing mainly from a physical source.

Kant has analysed our feelings of sublimity and beauty in his *Critique of Judgment*, translated by Bernard. Cousin, *The True, the Beautiful, and the Good*; Burke, *On the Sublime and Beautiful*; Addison, *Spectator*, vol. vi.

SUBSTANCE (*substantia*; *sub*, under; *sto*, to stand; *οὐσία*).—Distinctiveness, and persistence of being, whatever its limits, or qualities. The existence to which qualities belong. Material substance is extended existence. Spiritual substance is non-extended, thinking existence.

Substance (*οὐσία*) is the first of Aristotle's ten categories. It is “the first, chief, and most general affirmation, which is

neither predicated of any subject, nor is in anything underlying it, *e.g.*, a man or a horse." *Categories*, 5, 2a, 11; Compare *Metaph.*, xi. and xiii.

Descartes conceived the universe as consisting of two substances—*res cogitans* and *res extensa*. Spinoza resolved these into *attributes* of God—the *unica Substantia*. His definition of *Substance* "is that which is in itself, and is conceived through itself." Locke returned to the Cartesian doctrine of two substances—the material and the thinking substance, which he conceived as *substrata*. Berkeley, criticising Locke's view of *Material substance*, urged the superfluity and the contradictoriness of supposing any such "support" of qualities which, because they are sensations, require no other "support" than the mind which perceives them. Hume extended this criticism to *Spiritual substance*, which he resolved, equally with matter, into a "bundle of sensations." To this criticism of the notion of Substance there were two replies—that of Kant, showing its necessity as a category of thought, providing for the unity of the qualities themselves; that of the Scottish philosophers, holding that the conditions of knowledge imply that both the Subject-in-itself and Object-in-itself are Substances or Substrata of qualities manifested.

SUFFICIENT REASON (Doctrine of).—The principle of *sufficient reason* as a law of thought is stated by logicians thus:—"Every judgment we accept must rest upon a sufficient ground or reason."

Of the principle of the *sufficient reason*, the following account is given by Leibnitz in his correspondence with Clarke:—"In order to proceed from mathematics to natural philosophy, another principle (besides Identity) is requisite (as I have observed in my *Theodicea*), I mean the principle of the *sufficient reason*; that nothing happens without a *reason* why it should be so, rather than otherwise." See Reid, *Active Powers*, Essay iv. ch. ix.; Hamilton's *Discussions*, p. 603.

Thomson, *Outline of the Laws of Thought*, 3rd ed., p. 281. "The principle of *sufficient reason* is not a law of thought, but only a statement of the necessity of some law or other." Mansel, *Prolegomena Logica*, 2nd ed., p. 229.

Schopenhauer, *Ueber die vierfache Wurzel des Satzes vom zureichenden Grunde*, 1813. "Fourfold Root of the Principle of Sufficient Reason," Bax's Transl.; Bosanquet, *Logic*, ii. 212.

SUMMUM BONUM.—*Vide* BONUM.

SYLLOGISM (συλλογισμός).—A putting together of judgments or reasonings.

The word occurs in the writings of Plato, in the sense of judging or reasoning.

"A *syllogism* is a speech (or enunciation, λόγος) in which certain things (the premises) being supposed, something different (the conclusion) follows of necessity; and this solely in virtue of the suppositions themselves." Aristotle, *Prior. Analyt.*, lib. i. cap. i. sec. 7.

SYMBOLIC LOGIC regards the Judgment as an Equation, and Inference as the substitution of equivalent quantities, and adopts Algebraic symbols to represent these qualities. De Morgan introduced the method; Venn developed it in detail, applying it to the various parts of logical doctrine. Venn, *Symbolic Logic*.

SYNTHESIS (σύνθεσις, συντίθημι, to put together).—Combination of parts, as interpreted by the laws of their coherence.

Experience is a synthesis of the manifold impressions on the sensory. The purpose of philosophy is to ascertain the conditions under which this synthesis is realised.

Natural synthesis is the process in accordance with which the unity of consciousness is maintained, however great the variety of phenomena included. Procedure in mind supplies the fundamental problem in mental philosophy. Philosophic Synthesis is the correlative of Analysis. The latter is an artificial severance; the other an artificial recombination or reconstruction, under guidance of nature, and by interpretation of mental procedure. Only in the latter can philosophy of mind be completed. Its task is to be fulfilled by study of the "synthesis of consciousness," for discovery of the logic which rules within it.

From Kant came the first penetrating and effective testimony for the synthesis of thought as the crowning feature in Epistemology. This leading was followed by Hegel. To these two, modern philosophy is here specially indebted,—an obliga-

tion which philosophers of every school may acknowledge. Herbert Spencer has worked on this cue, in his building up of a "Synthetic Philosophy," in the service of Evolution. The modern form of the philosophic problem is synthetic.

"*The synthesis of apprehension*" "merely lumps the manifold together into a simultaneous possession or consciousness. . . . Order comes in with the second form of connection, *the synthesis of perception*, that is, with figures in space, and succession in time, in which individual impressions take up definite and non-equivalent positions." Lotze, *Logic*, § 20, transl., p. 28.

Kant, *Critique of Pure Reason*; Hegel, *Logic*; Herbert Spencer, *Principles of Psychology*; Cycles, *Process of Human Experience*; Bain, *Emotions and Will*; Lotze, *Logic*; Bradley, *Logic*; Bosanquet, *Logic*.

SYNTHETICAL JUDGMENTS.—"In an analytical judgment, I do not go beyond the given conception, in order to arrive at some decision respecting it. . . . In synthetical judgments, I must go beyond the given conception, in order to cogitate, in relation with it, something quite different from that which was cogitated in it, a relation which is consequently never one either of identity or contradiction, and by means of which the truth or error of the judgment cannot be discussed merely from the judgment itself." Kant, *Pure Reason*; *System of Principles*, sec. 2, Meiklejohn's transl., 117.

TABULA RASA (a tablet made smooth).—The ancients wrote upon tablets covered with soft wax, on which the writing was traced with the sharp point of the stylus. When the writing had served its purpose, it was effaced by the broad end of the stylus being used to make the wax smooth. The tablet was then *tabula rasa*, ready to receive fresh writing. In opposition to the doctrine of *innate ideas*, the mind of man has been compared to a *tabula rasa*, and to a sheet of white paper—having at first nothing written upon it, but ready to receive what may be inscribed on it by the hand of experience. This view is maintained by Hobbes and Locke.

Leibnitz, speaking of the difference between Locke and himself, says:—"The question between us is whether the soul in itself is entirely empty, like a tablet upon which nothing has

been written, *tabula rasa*, according to Aristotle, *De Anima*, lib. iii. cap. iv. sec. 14; and the author of the *Essay on Human Understanding*, bk. ii. ch. i. sec. 2; and whether all that is there traced comes wholly from the senses and experience; or whether the soul originally contains the principles of several notions and doctrines, which the external objects only awaken upon occasions, as I believe with Plato."

The point in dispute is whether the mind supplies the conditions of experience. How much this involves may appear from the following quotation. The comparison of the soul to a *tabula rasa* "means only that as the *tabula rasa* is a book potentially but not actually, so human reason is at first not actually, but potentially cognitive; or thought possesses the universal notions within itself in principle, so far as it is capable of forming them, but not in actuality, not definitely developed." Schwegler, *Hist. of Philos.*, transl. Hutchison Stirling, p. 115.

TASTE.—Sensibility of the palate; sense of the beautiful; "a kind of extempore judgment." Burke explained it as an instinct which immediately awakes the emotions of pleasure or dislike.

"In order to distinguish whether anything is beautiful or not, we refer the representation, not by the understanding to the object for cognition, but by the imagination (perhaps in conjunction with the understanding) to the subject, and its feeling of pleasure and pain." Kant, *Kritik of Judgment*, transl. Bernard, 45. "When the question is if a thing is beautiful, we do not want to know whether anything depends, or can depend, on the existence of the thing, either for myself or for any one else, but how we judge it by mere observation (intuition or reflection)." *Ib.*, 47.

Gerard, *Essay on Taste*; Sir Joshua Reynolds, *Discourses before Royal Society*; Burke, *On the Sublime and Beautiful*; Hume, *Essay on Taste*, *Essays*, pt. i. xxiii; Green's ed., i. 266; Dugald Stewart, *Philos. Essays*, pt. ii.; Hamilton's ed., v. 189; Thomas Brown, *Philos. of Mind*, lects. liii.—lvii.

TEACHING, ART of.—The Art of Teaching is spoken of in two senses—the actual practice of teaching in the School and Methodology, or the Rules of Method for teaching all subjects, and for Moral and Religious training. These Rules of Method,

in so far as they are general and scientific, rest on Psychology ; they are to be deduced from the Science of Mind as a *growing* mind. The principles of growth yield the principles of education, and constitute it a Science in the same sense as Political Economy, Jurisprudence, &c., are spoken of as Sciences.

The best available books, apart from text-books, are Ascham, *Scholemaster* ; Mulcaster, *Positions* ; Locke's *Thoughts on Education* ; Locke, *Conduct of the Understanding* ; Herbert Spencer on *Education* ; Laurie, *Institutes of Education* ; Fitch, *Lectures on Teaching* ; Bain, *Education as a Science* ; Professor Payne's *Lectures* ; Laurie's *Language and Linguistic Method* ; Calderwood on *Teaching ; its Means and Ends* : Compayré, *History of Pedagogy*, translated by Payne.

TELEOLOGY (τέλος, an end ; λόγος, discourse).—The science of rational ends, as these may be traced in the history of procedure in Nature. The philosophic doctrine is commonly named that of "Final Causes." The general conclusion involved is, that nature in all procedure works towards rational ends, previously determined. This doctrine is negatively the contradiction of chance and caprice ; positively, the affirmation that intelligence is at the root of things, and was at their origin, determining procedure from the beginning.

"That the things of nature serve one another as means to purposes, and that their possibility is only completely intelligible through this kind of causality, for this we have absolutely no ground in the universal idea of Nature, as the complex of the objects of sense." Kant, *Kritik of Judgment*, transl. Bernard, 259. "In order to see that a thing is possible only as a purpose, . . . it is requisite that its form be not possible according to mere natural laws, *i.e.*, laws which can be cognised by us through the understanding alone, when applied to objects of sense ; but that even the empirical knowledge of it, as regards its cause and effect, presupposes concepts of reason." *Ib.*, 272.

"The highest formal unity, which rests solely on notions of Reason, is the teleological unity of things ; and the speculative interest of Reason renders it necessary to view all order in the world as if it originated from the purpose of a Supreme Reason." *Ib.*, p. 461. *Pure Reason*, Tr. Meiklejohn, 420.

Socrates, Xenophon's *Memorabilia*, i. 4, 4 ; iv. 3, 3 ; Aristotle, *Metaph.*, ix. 8. Epicurus, holding the eternity of atoms, rejected a teleological doctrine ; Diog. Laertius. Zeller's *Stoics, Epicureans, and Sceptics*. Hume objected to the doctrine as transcending the limits of experience, *Dialogues on Natural Religion*. Janet, *Final Causes* ; Flint, *Theism, and Anti-Theistic Theories* ; E. Caird, *Philosophy of Kant*, vol. ii. 493, 518.

"Conception of the world-aim,"—Lotze, *Philosophy of Religion*, c.viii. p. 114. "Darwinism and Teleology,"—Lange, *Hist. of Materialism*, bk. ii. sec. 2, c. 4. "How we come to assume an aim in Nature,"—Hartmann, *Philos. of the Unconscious*, Tr., i. p. 43.

TEMPERAMENT (*tempero*, to moderate, to season).— "Prevailing bias of disposition, whether natural or acquired. The balance of our animal principles." Reid, *Active Powers*, Essay iii. pt. ii. ch. viii. "The sum of our natural inclinations and tendencies." Feuchtersleben, *Dietetics of the Soul* ; cf. his *Medical Psychology*.

TEMPERANCE (*temperantia*, *σωφροσύνη*).—Moderation as to pleasure ; regulation of Impulse by Reason. Socrates said :—"Temperance is the foundation of every virtue." Xenophon's *Memorabilia*, i. ch. v. Plato describes it as "a sort of order and control of certain pleasures and desires," implied in a man being "master of himself." "It is of the nature of symphony and harmony." *Republic*, bk. iv. p. 430. This virtue he ranks as one of the four "cardinal virtues."

Aristotle, *N. Ethic.*, lib. iii. cap. x., confined it chiefly to bodily pleasures. By Cicero the Latin word *temperantia* was used to denote the duty of self-government in general. *Temperantia est quæ ut in rebus expetendis aut fugiendis rationem sequamur monet.*

TERM (*ὄρος*, *terminus*, a limit).—A *term* is a concept expressed in language. Every proposition consists of two terms, the *Subject* and *Predicate*, united by the *Copula*. The Subject and Predicate are called *Terms*, because they form the first and last members of the proposition—its extremes ; and every word or combination of words which can alone form the subject or predicate of a proposition is called a *Term*.

THEISM (Θεός, God).—The theory of the universe which regards an Absolute Being, infinite in intelligence and perfect in moral goodness, as the author of all things. In the 18th century, *Theist* and *Deist* were placed in contrast, the former being applied to the believer in a personal God, governing the world; the latter to the believer in the Divine existence, who denied Divine providence in the government of the world. Leland, *Deistical Writers*. Kant, *Pure Reason*, Tr. Meiklejohn, 387; Lotze, *Microkosmus*, i. 376; Flint, *Theism, Anti-Theistic Theories*; Pflleiderer, *Philosophy of Religion*.

THEODICY (Θεός, God; δικη, a pleading or justification).—A vindication of the ways of God. This word was employed by Leibnitz in his *Essais de Theodicée, sur la bonté de Dieu, la liberté de l'homme, et l'origine du mal* (1710).

THEOLOGY (Θεός, God; λόγος, discourse).—The science which treats of the divine nature and government.

“The science which has for its object the existence of God and his attributes, and the consequences of these attributes in relation to other beings.” Wolf, Prolegom. to *Theologia Naturalis*.

Natural Theology belongs to philosophy as an essential division of Ethics. The knowledge of the right has as its philosophic accompaniment the knowledge of the Moral Governor, and of his relation to the Universe.

“Natural theology infers the attributes and the existence of an author of the world, from the constitution of the order and unity observable in the world.” Kant, *Pure Reason*, Meiklejohn's Tr., p. 388. On possibility of a Rational Theology, *ib.*, 359. Mill, *Essays on Religion*, p. 36. Dorner, *Systematic Theology. The Gifford Lectures*.—Hutchison Stirling, *Philosophy and Theology*; Max Müller, *Natural Religion*, 1888; E. Caird, *Evolution of Religion*.

“In natural theology, where we think of an object—God—which never can be an object of intuition to us, and even to himself can never be an object of sensuous intuition, we carefully avoid attributing to his intuition the conditions of space and time,—and intuition all his cognition must be, and not thought, which always includes limitation.” Kant, *Pure Reason*, Tr., 43.

THEOSOPHY (Θεός, God; σοφία, knowledge).—*Theosophy* is the speculative side of *Mysticism*. The latter is primarily ethical and religious: the former elaborates a *theory* on which the practice of the mystic is based.

“The *theosophist* is one who gives you a theory of God, or of the works of God, which has not reason, but an inspiration of his own, for its basis.” Vaughan, *Hours with Mystics*, i. 45. See Martensen’s *Jacob Boehme*.—*Vide* MYSTICISM.

THESIS (θέσις, from τίθημι, to lay down).—A proposition, the truth of which requires proof.

In the schools of the Middle Ages it was especially applied to those propositions in theology, philosophy, law, and medicine, which the candidates for degrees were required to defend.

Kant, in attempting a reconstruction of Epistemology, recognised the philosophic problem as *synthetic*. Taking Thesis as that which is given by the sensory, the problem is to account for the manner in which intuitions are interpreted, by the synthesis which is the distinctive work of the understanding.

Fichte represented *Thesis*, *Antithesis*, and *Synthesis* as the three moments in knowledge, involving the original self-affirmation of the Ego, its opposition by the non-Ego, and the synthesis of Ego and non-Ego in the unity of the Absolute.

In the Hegelian Logic, these are the names for the three moments which constitute every movement of thought. They are affirmation, opposition, combination by absorption, involving annihilation of the “contradiction.”

Kant, in the *Dialectic*, calls the *Antinomy* of Pure Reason a *natural antithetic*; that is “the self-contradiction of seemingly dogmatical cognitions (*thesis cum antithesi*), in none of which we can discover any decided superiority.” *Pure Reason*, p. 263, Meiklejohn’s Tr. This antithetic is here unavoidable; because the synthesis of the two opposite statements—thesis and antithesis—is unattainable: “if it is adequate to the unity of reason, it is too great for the understanding; if according with the understanding, it is too small for the reason. Hence arises a mutual opposition, which cannot be avoided, do what we will.”

THING-IN-ITSELF.—Kant’s expression for the thing as a *art* from the sensory impression induced; the object as

distinct from the qualities made known to us by sensory impressions through its contact with our organism.

“Objects are quite unknown to us in themselves, and what we call outward objects are nothing else but mere representations of our sensibility; the thing-in-itself is not known by means of these representations.” Kant, *Pure Reason*, Meiklejohn’s Tr., p. 28.

“We assume that there are things in themselves underlying and causing the sensations, which we combine into the only things actually known to us.” Hutchison Stirling, *Handbook to Kant*, p. 28, “Reproduction.”

“It is quite inadmissible to treat Things in themselves as utterly foreign to the forms under which they were, nevertheless, to appear to us.” Lotze’s *Metaph.*, Bosanquet’s Tr., p. 181.

Kant would describe the “Thing-in-itself” as the unconditioned, lying behind phenomena, and quite out of reach by the sensory, and therefore by the understanding.

On the possibility of knowing the Thing-in-itself, Schopenhauer, *The World as Will and Idea*, transl., vol. ii. p. 399, and vol. iii. p. 77; Bradley, *Logic*, p. 145; Clifford, Article in *Mind*, vol. iii. p. 57.

“The idea in its simplest form is a reproduced sensation, . . . and may be called simple idea. Out of such simple ideas are formed, through association by contiguity, complex ideas. . . . In these, the simple sensations are united into ideas of individual totalities. The connection between the simple ideas, of which the individual idea is composed, may be so firm and close, that we are disposed to regard the latter as corresponding to a certain mystical unity in the objective world, namely, to what we call the ‘thing itself,’ as distinct from its qualities.” Höfding’s *Psychology*, 164.

THINKING.—The exercise of intelligence or understanding, comparing elements of our experience, forming conceptions of things, reasoning from premises to conclusions, and reaching generalised truth. The power of comparison is its distinctive characteristic.

From the rise of Modern Philosophy in Descartes, with use

of his formula *Cogito, ergo sum*, "Thought" has been taken as the distinguishing characteristic of Mind. This has resulted from Descartes' use of Doubt, and his clear recognition of the need for satisfying the "reason," rather than from an exact definition of Thinking.

By Descartes, *cogitatio, pensée*, is used to comprehend "all that in us of which we are immediately conscious. Thus all the operations of the will, of the imagination, and senses, are *thoughts*." *Resp. ad Sec. Obj.* In reply to the question, What is a thing which thinks? he says, "It is a thing that doubts, understands, conceives, affirms, desires, wills, refuses, that imagines also and perceives." *Medit.*, ii. Accordingly all existence in the universe is classified by him as *res cogitans*, or *res extensa*.

"Without the sensuous faculty no object would be given to us, and without the understanding no object would be thought. Thoughts without content are void; intuitions without conceptions blind." Kant, *Pure Reason*, transl. by Meiklejohn, p. 46.

Thought is "the act of knowing or judging of things by means of concepts." Mansel, *Prolegomena Logica*, p. 22. It is "the reaction of the mind on the material supplied by external influences." Lotze, *Logic*, p. 1, Bosanquet's transl. Again, it is "the surplus of work over and above the current of ideas." *Ib.*, p. 5.

When we speak of "trains of thought," "the only images intrinsically important are the halting-places, the substantive conclusions, provisional or final, of the thought." "When the penultimate terms of all the trains, however differing *inter se*, finally shoot into the same conclusion, we say, and rightly say, that all the thinkers have had substantially the same thought. It would probably astound each of them beyond measure to be let into his neighbour's mind, and to find how different the scenery there was from that in his own." James, *Principles of Psychology*, ii. 269.

TIME (*tempus*).—Succession of events as known in the order of external occurrences, or of phenomena in consciousness. From this, we come to measure duration of existence; tested by some standard of relation; the more durable affording a ground

of comparison for the less durable. Finally "Time" is the mental "form" or conception, in accordance with which succession is represented in consciousness.

Kant prefers to describe it as a mental form, whereas a conception of time is a definite measure of time.

By Aristotle, *time* was defined to be "the measure of motion, *secundum prius et posterius*."

"Reflection upon the train of ideas, which appear one after another in our minds, is that which furnishes us with the idea of succession; and the distance between any parts of that succession, or between the appearance of any two ideas in our minds, is that we call duration." Locke, *Essay*, bk. ii. ch. xiv. sec. 3.

"Time is not something which subsists of itself, or which inheres in things as an objective determination, and therefore remains when abstraction is made of the subjective conditions of the intuitions of things. . . Time is nothing else than the form of the internal sense; that is, of the intuitions of self and of our internal state. . . Time is the formal condition, *à priori*, of all phenomena whatsoever." Kant, *Pure Reason*, Meiklejohn's Tr., p. 30. E. Caird, *Philosophy of Kant*, i. 286, 416.

"To think a thing as past is to think it amongst the objects, or in the direction of the objects which at the present moment appear affected by this quality. This is the original of our notion of past time, upon which memory and history build their systems." James, *Principles of Psychology*, i. 605. Wundt, *Physiologische Psychologie*, ii. 348.

TRANSCENDENTAL, TRANSCENDENT (*transcendo*, to go beyond, to surpass).—Transcendental, as applicable to knowledge, describes that which transcends experience; hence *à priori*, as prior to experience, because a condition of it.

The affirmation of *à priori* elements in knowledge is the characteristic of the Transcendental Philosophy. This is one of the designations applied to the theory of Kant, otherwise named the Critical Philosophy.

Transcendent is applied to the Absolute Being, as beyond the range of sensible experience, and of the conceptions which experience warrants, thus transcending the Universe.

"In the schools, *transcendentalis* and *transcendens* were

convertible expressions employed to mark a term or notion which *transcended*, that is, which rose above, and thus contained under it the categories or *summa genera* of Aristotle. Such, for example, is Being, of which the ten categories are only subdivisions. Kant, according to his wont, twisted these old terms into a new signification." Hamilton, *Reid's Works*, note A, 762.

According to Kant, "*Transcendental* is not what transcends, but what in fact constitutes a category of thought." *Ib.*

Kantian usage will appear from the following extracts:— "The word transcendental with me never implies a reference to our knowledge of things, but only to our faculty of knowledge." *Prolegomena*, sec. 13. It is the characteristic of the Kantian philosophy to treat experimental psychology as belonging to the department of science, not of philosophy.

"Transcendental and transcendent are not identical terms. The principles of the pure understanding ought to be of empirical, and not of transcendental use; that is, they are not applicable to any object beyond the sphere of experience." Kant, *Pure Reason*, Meiklejohn's Tr., p. 211. "What is transcendental is not transcendent; that is, it is not transcendent absolutely of experience, it is *in* experience, but transcendent of the element of sense *in* experience." Stirling's *Text-Book to Kant*, p. 399. "*Transcendent* is an object *beyond* experience. *Transcendental* applies to an object that is *in* experience, but yet of a *validity* that is *beyond* experience. Kant's question of *Quid juris* is addressed wholly to that validity, of which the causal *nexus* is an example." *Ib.*, p. 13. "Transcendentalism," Balfour, A. J., Article in *Mind*, iii. 480; Kant's use of, Seth, *Hegelianism and Personality*, 14.

Transcendent applies to "an object such that it is absolutely beyond the experience of sense. Nevertheless, what is constitutively transcendent, may still be *regulatively transcendental*, should its idea be found, like those of God, Free-Will, Immortality, in any way to act on experience." Hutchison Stirling, *Text-Book of Kant*, p. 28, "Reproduction."

TRUTH.—The conformity of knowledge with its object; the harmony of thought with reality.

In its etymological sense, *truth* signifies that which the speaker "trows," or believes to be the fact.

Truth, in the strict logical sense, applies to propositions and to nothing else; it consists in the conformity of the declaration made to the actual state of the case. It thus implies two things, — the trustworthiness of our experience; and the adequacy of our interpretation of what our experience contains. Truth is thus a matter of the understanding. Its attainment implies that the understanding is self-critical, being equal to the task of the verification of its own results, by return upon the facts involved. Truth in the highest sense is Necessary Truth, independent of facts; self-evident to intelligence, so as to require no verification. As a matter of knowledge, the discovery of truth is more or less difficult according as knowledge is mediate or immediate. Immediate knowledge admits of no doubt; mediate knowledge is beset with special risks of misunderstanding, giving wide scope for hasty assumptions. Our difficulties increase as we become more deeply concerned in the exercise of thought.

UNCONDITIONED.—Absolute Independence. Applicable to the One Being independent of all being besides; to the Self-existent alone. The Unconditioned is existence for which there is nothing antecedent, that is, the Absolute.

Stated in terms of cognition, the Unconditioned is "that the conception of which does not require the conception of another thing, from which it must be derived." This is one side of Spinoza's definition of the one only substance. In harmony with this, is his definition of God: "By God I understand the absolutely infinite being, that is, the substance consisting of infinite attributes, each of which expresses an eternal and infinite essence.

"This term (Unconditioned) has been employed . . . in a twofold signification, as denoting either the absence of all *restriction*, or more widely, the absence of all *relation*. . . . The only legitimate meaning which can be attached to the terms Unconditional and Absolute, is freedom from all restriction." Calderwood, *Philosophy of Infinite*, 3rd ed., p. 177.

Unconditioned is not infrequently used in a relative sense,

indicative merely of the absence of conditions commonly appearing in given relations.

Kant, representing Reason as seeking "to attain to completeness in the series of premises," describes "the absolute totality of the series" as an "unconditioned," while granting that "the absolute totality of such a series is only an idea." *Pure Reason*, transl. Meiklejohn, p. 261. "It is very manifest that the peculiar work of reason, in its logical use, is to find for the *conditioned* cognition of the understanding, the *unconditioned* whereby the unity of the former is completed." *Ib.*, p. 217.

Hamilton brings the *infinite* and the *absolute* under the *unconditioned*, — "the *infinite* being the *unconditionally unlimited*, the *absolute* the *unconditionally limited*." "Philosophy of the Conditioned." Hamilton's *Discussions*, 13.

UNCONSCIOUS CEREBRATION. — Unconscious Activity.—*Vide* LATENT MENTAL MODIFICATIONS.

UNDERSTANDING.—The intelligence acting as a comparing and as a reasoning power; the intellectual activity obtaining knowledge by comparison and combination, so as to form conceptions.

"The faculty of thinking the object of sensuous intuition, is the understanding. Neither of these faculties has a preference over the other. Without the sensuous faculty no object could be given to us, and without the understanding no object would be thought." Kant, *Pure Reason*, transl. Meiklejohn, p. 45. "It is from the understanding alone that pure and transcendental conceptions take their origin; the reason does not properly give birth to any conception, but only frees the conception of the understanding from the unavoidable limitation of a possible experience, and thus endeavours to raise it above the empirical."—*Ib.*, p. 256.

"To *understand* anything is to apprehend it according to certain assumed ideas and rules." Whewell, *Elements of Morality*, Introd.

"The *understanding* is the medial faculty, or faculty of means, as *reason*, on the other hand, is the source of ideas or ultimate ends. By *reason* we determine the ultimate end; by the

understanding we are enabled to select and adopt the appropriate means for the attainment of, or approximation to, this end, according to circumstances." Coleridge, *Notes on English Div.*

"I use the term *understanding*, not for the *noetic* faculty, intellect proper, or place of principles, but for the *dianoetic*, or discursive faculty in its widest signification, for the faculty of relations or comparisons; and thus in the meaning in which *Verstand* is now employed by the Germans." Hamilton, *Discussions*, p. 4, note.

UNITY (*unum*, one).—Singleness of being; combination of the manifold, by the harmony of parts constituting a whole or system.

When it is said that unity is the end of philosophy, what is meant is that the thinking view of things must seek harmony in a single system. To search for the explanation of anything, is ultimately to seek the explanation of all things coexisting in relation. The end of philosophy does not lie anywhere short of the Universe as a whole.

Whatever dispute arises between Monism and Dualism, belongs to the sectarianism of philosophy. In itself and by its nature, philosophy seeks the explanation of all finite things as they are brought to unity in a system.

A monistic scheme, such as that of Spinoza, or that of Hegel, is so far in harmony with the Dualism which seeks the explanation of the universe of finite existence in the Absolute Self-existent one. These theories are agreed in this that the finite universe, as combination of matter and spirit, does not carry its explanation in itself; but has its explanation behind, if not beyond itself. *Natura naturans* is the key to *natura naturata*. *The Idea* is the adequate cause and explanation of the manifestation evolved in history. But, so far as thought is concerned with Being itself, we must ultimately think all things *sub specie eternitatis*.

UNIVERSAL (*unus*, one; *verto*, to turn).—The one in the many. Apart from the problem of necessary or universal truth, the question of "Universals" belongs to ancient philosophy as concerned with idea or essence, and to the Scholastic controversy

between the Realists and Nominalists; having its root in the difference between Plato and Aristotle as to Ideas.

Universals have been divided into *Metaphysical*, *Physical*, and *Logical*.

By the first are meant archetypal forms or ideas; by the second, common characteristics, shared in by many; by the third, general notions predicated of many forms of existence.

Realists give prominence to *universals* in the first and second signification. *Nominalists* hold that the true meaning of *universals* is that assigned in the third sense. While *conceptualists* hold an intermediate view.

This term "universal" expresses the uniform basis appearing in the history of any type of existence. "It is variously described as the universal in the individual; the durable amid change; the rational amid the sensible; the unit amid plurality; the self-identical amid the diverse." Martineau, *Types of Ethical Theory*, 3rd ed., vol. i. p. 26.

UTILITARIANISM.—The ethical theory which finds the basis of moral distinctions in the *utility* of actions, that is, in their fitness to produce happiness. The greater the happiness, the greater the rightness. The ultimate test is "the greatest happiness of the greatest number." Egoistic Hedonism having given place to *Altruism*, a regard to the good of others is accepted as the true ethical end. The theory has been carried still further by J. S. Mill, who introduces a regard to the qualities of pleasures as higher and lower, and requires that the general maxim be read in view of this difference,—quality, not quantity, being the test of Utility. For criticism, "Utilitarianism and Evolution," Muirhead, *Elements of Ethics*, 125.

"The Ethical theory, that the conduct which, under any given circumstances, is objectively right, is that which will produce the greatest amount of happiness on the whole." Sidgwick, *Method of Ethics*, bk. iv. c. i. p. 407. Mill, *Utilitarianism*; Stephen, *Science of Ethics*.—*Vide* HAPPINESS THEORY.

VIRTUE.—(*virtus*, strength; *vir*, a man; goodness; ἀρετή, excellence).—Moral excellence. In ancient times, it was largely used to describe bravery, as true manliness. Plato, *Republic*,

iv. 429. In modern usage, it designates any disposition harmonising with moral law, and having the force of fixed habit in the life. Its opposite is *Vice*. "Virtue signifies a moral strength of Will." Kant's *Ethics*, Abbot's Tr., 316.

"The virtues" are the whole excellences required by moral law, organised in character,—“the health and harmony of the soul.” Plato, *Republic*.

"A doctrine of Virtue" is a philosophy of the intellectual and practical conditions under which virtues are attained. These include thought, purpose, effort, failure and self-reproach, success and self-approbation, all of which are essential to the development of a moral life. Character depends on "an energy of the soul according to reason." Aristotle's *N. Ethics*, i. vii. 14; and ii. i. 4; and iii. v. 22.

The distribution and classification of virtues must be according to the rational demands of moral law. Whatever the notion "right" can be held to cover in the sphere of motive, that must be included among the excellences of moral character. Wisdom, courage, temperance, and justice, were enumerated by Plato as "the cardinal virtues." *Republic*, bk. iv. 428; Bradley, *Ethical Studies*, 250; Green, *Proleg. to Ethics*, 264.

VOLITION (*volō*, to will).—An exercise of will; a determinate purpose formed with a view to immediate action, and causing action. Volition "is an act of the mind knowingly exerting that dominion it takes itself to have over any part of the man, by employing it in, or withholding it from, any particular action." Locke, *Essay*, bk. ii. ch. xxi. sec. 15.

Though there cannot be volition without intelligence, purpose is largely swayed by impulse. Volition under passion is still self-chosen activity, for which the agent is responsible. The moral agent is aware of the need of reflection for rational conduct, and there can be no abatement of responsibility if he neglect it. Aristotle's *N. Ethics*, iii. i. 2. Will has governing power only in the use of intelligence.

WEBER'S LAW.—The law first noted by Weber, afterwards confirmed by extended observations of Fechner, and expounded by Wundt, concerning the ratio of sensibility as related to the ratio of stimulation. Stimulation must increase

in geometric proportion in order that sensibility may advance in arithmetical proportion. E. Weber, *Muskelbewegung*, 1846, Band iii.; Wagner, *Handwörterbuch der Physiologie*; Fechner, *Elemente der Psychophysik*; Wundt, *Physiol. Psych.*, i. 330; Ladd, *Physiol. Psychol.*, 365; James, *Text-Book of Psychol.*, 17.

WILL.—The power of self-control belonging to rational life, cognisant of the relation of means to ends, and of law to conduct; and capable of using means for execution of deliberate and determinate purpose. A voluntary act stands in contrast with a spontaneous, reflex, or mechanical action. Höfding, *Psychology*, transl., ch. vii. Will involves a power of rational self-determination, and presupposes knowledge of laws of conduct.

Aristotle treats of the voluntary as "that the principle of which is in the agent himself, when recognising the circumstances in which he acts." *N. Ethics*, bk. iii. Aristotle "contents himself with the practical assumption of freedom for man." Grant, *Aristotle's Ethics*, i. 284.

"Every man is conscious of a power to determine, in things which he conceives to depend upon his determination. To this power we give the name of *will*." Reid, *Active Powers*, Essay ii. ch. i. "Will is that which chooses anything." Edwards *On the Will*, i. sec. 1. It is possible to do, "voluntarily," "without happiness." Mill, *Utilitarianism*, 22.

"A voluntary action is a sequence distinct and *sui generis*." Bain, *Practical Essays*, 36. Sidgwick, *Methods of Ethics*, 3rd ed., 57.

"We now most commonly apply the term 'Will' to the direction of the conscious self to action." Green, *Proleg.*, 148.

"Only the shaping of our own mind, and not that of the outward world, stands directly within our control." Lotze, *Outlines of Pract. Philos.*, § 2.

"Rational beings alone have the faculty of acting according to the conception of laws, that is, according to principles, *i.e.*, have a will." Kant, *Theory of Ethics*, Abbott's Tr., p. 29. "Reason is given as the governor of will, by its sway to constitute it good." Kant, *Metaph. of Ethics*, Semple's Tr., p. 18, 3rd ed. "Concentration of will does not necessarily mean goodness,

but it is a necessary condition of goodness." Green, *Proleg.*, 109. "The rational self in the form of will." Bradley, *Ethical Studies*, 30.

The will's struggle in ethical life is to free itself from dominion of passion, so as to establish dominion of reason. "The particular man has to make that his." Bradley, *Ethical Studies*, 296.

The leading problem here concerns the relation of Will to motive forces. Modern Philosophy has no place for "liberty of indifference." "Motiveless choice" is a contradiction. A man sets "clearly before himself certain objects." Green, *Prolegomena to Ethics*, 109.

The Libertarian theory maintains that Will controls motives through guidance of the understanding. The Necessitarian or Determinist theory maintains that volitions are determined by the nature and circumstances of the agent.

The Libertarian doctrine is thus stated by Kant:—"Will is that kind of causality attributed to living agents, in so far as they are possessed of reason, and freedom is such a property of that causality as enables them to originate events independently of foreign determining causes." *Metaph. of Ethics*, Semple's Tr., 3rd ed., p. 57; Abbot's Tr., p. 65.

The Determinist doctrine is thus stated by J. S. Mill:—"Volitions follow determinate moral antecedents with the same uniformity and with the same certainty, as physical effects follow their physical causes." *Exam. of Hamilton*, 3rd ed., p. 561. Cf. *Utilitarianism*, 22.

Of Hegelian thinkers, Green may be quoted as a representative. "Free-will is either a name for you know not what, or it is included, is the essential factor, in character." Green, *Prolegomena*, p. 113. This is the Deterministic Theory; while "the champions of free-will," it is erroneously said, commonly suppose that a man "makes a choice which is not itself determined by any motive." P. 107. The motive is intelligently "determined."

For the explanation of human conduct, the Libertarian points to Thought; the Determinist, to Character. For the former, the ultimate explanation is Thought concerned with facts and

principles or rules of conduct. For the latter, the ultimate explanation is Character, "environment," "outward circumstances suited to call internal incentives into action."

On the Libertarian side.—Aristotle, *N. Ethics*, bk. iii.; Leibnitz, *Letters to Clarke*; Kant, *Metaph. of Ethics*, and *Practical Reason*; Reid, *Active Powers*, Essay ii. and Essay iv.; Fichte, *Grundlage des Naturrechts nach Principien der Wissenschaftslehre*; Dugald Stewart, *Active and Moral Powers*; Hamilton, *Metaph.*, ii. 410; Mansel, *Limits of Religious Thought*, lect. v.; Chalmers, *Moral Philosophy*, ch. iv.; Tappan, *On the Will*; M'Cosh, *Method of Divine Government*; Calderwood, *Handbook of Moral Philos.*, part iii.; Porter, *Elements of Moral Science*; Martineau, *Types of Ethical Theory*, 3rd ed., vol. ii. pp. 37-41, and p. 87; Laurie, *Metaphysica Nova et Vetusta*, and *Ethica*.

Determinism.—Spinoza, *Ethics*, part ii.; Edwards, *On the Will*; Hobbes, *Leviathan*, part i. c. 6; Hume, *Treatise on Human Nature*, bk. ii. pt. 3; *Essays*, "Liberty and Necessity"; Mill, *Exam. of Hamilton*, ch. 26; Bain, *Emotions and Will*, p. 246; Sidgwick, *Method of Ethics*, bk. i. ch. 5; Leslie Stephen, *Science of Ethics*, c. vii. div. 2; Sidgwick, *History of Ethics*, 253.

For Human *Freedom and Determinism* according to Hegelian thought,—Hegel, *Phänomenologie des Geistes*, indicating the stages through which spirit passes in its manifestation, until, in view of "absolute knowledge," "from the chalice of this realm of spirits, infinity pours foaming forth." Hutchison Stirling, *Secret of Hegel*; Wallace, *Hegel's Logic*; Bradley, *Ethical Studies*, Essay i.; Green, *Prolegomena to Ethics*, bk. ii.; Muirhead, *Elements of Ethics*, bk. ii., under "Moral Judgment," pp. 45-62.

WISDOM (σοφία).—Practical sagacity, applied for guidance of life as a whole: prudence in a large sense, connected with wide range of vision.

Wisdom is "prudence in counsel": "a kind of knowledge that makes men deliberate prudently." Plato, *Republic*, bk. iv. p. 428. Plato sets it first among the "Cardinal Virtues."

"We cannot say of wisdom, in a disparaging way, it is only

an idea. For, for the very reason that it is the idea of the necessary unity of all possible aims, it must be for all practical exertions and endeavours the primitive condition and rule—a rule which, if not constitutive, is at least limitative.” Kant, *Pure Reason*, Meiklejohn’s Tr., p. 229.

WORTH.—Relative excellence either of conduct or of character, in view of moral law. “An action done out of duty has its moral worth, not from any purpose it may subserve, but from the maxim according to which it is determined on; it depends not on the effecting any given end, but on the principle of volition singly.” *Groundwork of Metaph. of Ethics*, Semple’s Tr., 3rd ed., p. 11.

“The essence of all moral worth in acting, consists in this, that the moral law be the immediate determinator of the Will.” Semple, 3rd ed., p. 109; Abbott’s *Kant’s Theory of Ethics*, p. 164.

True ethical worth is “the fore-realised divine ideal; and by faith the particular man has to make that his, to identify himself therewith, behold and feel himself therewith identified, and his own self-consciousness have the witness of it.” Bradley, *Ethical Studies*, 296.

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INDEX OF GERMAN TERMS AND ENGLISH EQUIVALENTS,

Including common words in their philosophic acceptation (with extra references to Kant's Collected Works, as edited by Rosenkranz).

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| <p>Abstrakt, 72, that which is regarded in separation from its concrete conditions.</p> <p>Absicht, purpose, as contemplated and determined by the agent.</p> <p>Achtung, respect, regard, reverence, 301; Achtung für Gesetz, reverence for the moral law,—for the right in conduct. Reine Achtung, pure respect, reverence singly — Kant, Werke, viii. 20.</p> <p>Ästhetik, 72; in Kantian usage, belonging to the sensory, or to sensible experience.</p> <p>Amphibolie, confounding of conditions of knowledge, with qualities of things, ii. 214.</p> <p>Anschauung, intuition, 213, 254.</p> <p>Anticipation, 21; die Anticipation der Wahrnehmung, πρόληψις, a pre-existing condition of knowledge, forecasting possible perception.</p> <p>Apathie, lack of feeling, as with the Stoics, 23; but also used by Kant, as Stärke, strength in control, ix. 257.</p> <p>Apodiktische, certain, as in axiomatic or universal truth. Apodiktische philosophische Gewissheit, apodictic philosophic certainty.</p> <p>Apprehension, 28; instantaneous cognition in sensation; taking place in der blossen Empfindung in einem Augenblicke, ii. 146, in the mere sensation, in a twinkling.</p> <p>Assertorische, 34; applied to a judgment which affirms reality of existence, in contrast with elements in consciousness which are only regulative.</p> | <p>Aufklärung, 191, intellectual enlightenment, illumination.</p> <p>Autonomie des Willens, Autonomy of the Will, that characteristic of the Will by which it is a law to itself, viii. 71.</p> <p>Bedürfniss, want.</p> <p>Befremdlich, strange, unfamiliar to ordinary thought.</p> <p>Bestimmung, end, distinction. Die höchste praktische Bestimmung,—the highest practical destination of the Will, viii. 15.</p> <p>Begriff, 69, 253, 254, conception.</p> <p>Bewusstseyn, 26, 78, consciousness.</p> <p>Das Ich, Das nicht-Ich; Ego and non-Ego, 121,—the dualism in consciousness.</p> <p>Daseyn, determinate being,—Being there and then (Hegel).</p> <p>Dialektik, 103–105. Kantian usage, illusory employment of logical forms,—Transcendental Dialectic. Hegelian use, the combination of categories which is involved in the movement of thought.</p> <p>Ding-an-sich, the thing in itself, 330; the object as apart from our recognition of it.</p> <p>Dunkel, 16, implicit in a judgment; in contrast with klar, explicit.</p> <p>Eigenschaft, property, quality.</p> <p>Einfluss, influence coming from without,—experienced impression.</p> <p>Empfindung, sensation, 30; blosser Empfindung, mere sensation.</p> <p>Erfahrung, 145, experience.</p> |
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- Erkenntnisstheorie, theory of knowledge, 131, 221. In popular language, Weisheitslehre, philosophy.
- Erscheinung, 25, appearance, but not illusory; a phenomenon.
- Geist, spirit.
- Gemüth, 239, mind, spirit.
- Gewissen, conscience, 74; gewiss, sure, sicher.
- Glaube, 44, belief, faith.
- Glück, happiness; Glückseligkeit, blessedness, viii. 18.
- Grund, basis, foundation, reason for a conviction.
- Gute, das, 48, The Good, bonum, distinguished from Wohl, weal.
- Handlung, action, as in morals; conventionally, "trade."
- Idealism, 183. Kant's usage applies to conditions of knowing, not to existence of things. It is Kritischer Idealism, iii. 51.
- Imperativ kategorisch, 57, the direct command of the moral law.
- Kategorienlehre, 133, a science or logic of the categories.
- Kritik, 89, an analysis of human knowledge *a priori*.
- Moment, a single element in the movement of thought (Hegel).
- Naturphilosophie, 249, a rationalised view of nature.
- Neigung, inclination.
- Nothwendigkeit, necessity. Used by Kant as applicable to the notion Duty.
- Objektiv, objective; applied to the moral law, das Gesetz, as authoritative in itself, viii. 20.
- Pflicht, duty; ans Pflicht, for duty's sake; Pflichtmässig, conformable to duty, viii. 17.
- Praktisch, 277, practical, distinguished from spekulativ on the one hand, and from pathologisch, concerned with feeling, on the other.
- Recht, morally right.
- Raum, space.
- Regulativ, 295, concerned with direction of intelligence.
- Satz, station, position; a proposition in a course of reasoning.
- Schein, appearance in the widest sense, distinct from phenomenon, Erscheinung.
- Seyn, pure being, 44 (1), in contrast with Daseyn, determinate being.
- Transcendental, transcendental, 14, an element in consciousness unexplained by experience. Transcendentale Philosophie, a philosophy of the transcendental, that is, of the characteristics of "our faculty of knowledge," 333, Erkenntnisvermögen.
- Unmittelbar, immediate, 191; in contrast with vermittelt, mediate, derived.
- Vernunft, Reason; used by Kant sometimes as equivalent to human intelligence, die menschliche Vernunft (Pref. to Kritik der reinen Vernunft); commonly as the name for the faculty of knowledge *a priori*. Vernunft is also the practical faculty, viii. 15. Vernunftbegriff, a rational conception, coming from reason itself; selbstgewirkt, self-wrought.
- Verstand, 335, the power of distinguishing, of understanding, of defining.
- Vorstellung, representation, a figurative conception, a thought-picture.
- Wahrheit, truth, 333.
- Wahrscheinlichkeit, probability, an appearance of truth.
- Wille, the Will. Ein guter Wille, a Good Will, viii. 11; a Will making the right its supreme end. Princip des Wollens, the law of the Will.
- Wohl, das, weal, welfare.
- Zeit, time—Raum und Zeit,—space and time are the two sources *a priori*, rendering intuitions possible.
- Zweifel, doubt.
- Zweifelhaft, doubtful, questionable.

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