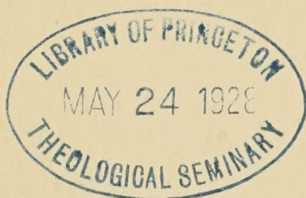
AN INTRODUCTION TO PHILOSOPHY

EDGAR SHEFFIELD BRIGHTMAN



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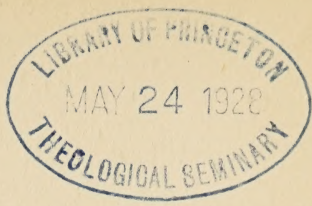
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AN INTRODUCTION TO PHILOSOPHY

BY
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IN BOSTON UNIVERSITY

NEW YORK
HENRY HOLT AND COMPANY

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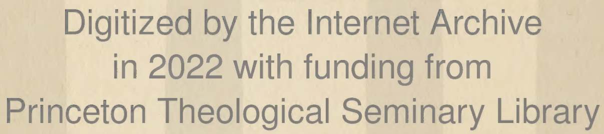
Dedicated

to

MY MOTHER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PREFACE

This book is an introduction to philosophy. It presupposes no prior acquaintance with the subject and is intended either for the student or the general reader. The author has undertaken to present fairly what may be said for and against the solutions of the chief problems offered by the important schools of philosophical thought. He has also sought to interpret his own point of view, which may be called personalism or personalistic idealism.

Since the book is an introduction it is not a complete system of metaphysics. Many topics that are in the public eye are therefore treated briefly or not at all. Current discussion of space and time is highly technical and is in a state of transition. Little is said of those topics in this book. Relativity and Einstein are barely mentioned; Freud, only incidentally; the important theory of *quanta* and the much discussed theories about glands, not at all. Such topics are better not undertaken until one is fairly familiar with the lay of the land in philosophy through such a survey as is found in the following pages.

The teacher who uses this *Introduction* as a text-book will probably find that if it be made the basis of a course for a single semester, some of the chapters will have to be omitted or cursorily treated. The book is best adapted to be used as the basis for two semesters' work, the first semester being "Introduction to Philosophy," and the second being perhaps its continuation, or perhaps a separate course called "Metaphysics" or "Problems of Philosophy." The

introductory treatment of the text may then be supplemented by extensive outside readings selected from the bibliography or from other sources.

The author expects and desires criticism, not only "constructive" but also "destructive." Much of this criticism will doubtless be deserved. The author is under no illusion of infallibility. It is, however, to be feared that some of the criticism will arise from the fact that personalism happens not to be in fashion at the moment. There are critics who will welcome any philosophy, no matter how extravagant, provided it does not eventuate in theism; and will reject, without careful examination, any philosophy, no matter how reasonable, if it be inclined to find some truth in religion. Other critics have a similar animus against anything that calls itself idealism. Matters have come to such a pass that the idealism of Plato finds entrance into philosophically *élite* circles only when called realism. Some contemporary idealists seek refuge under other banners, such as "spiritualistic pluralism" or "personal realism." Names mean little, fashions even less. Only the truth counts. Not label or fad, but rational thought is the sole arbiter of truth recognized by philosophy. If this book leads its readers to examine current fashions of opinion with calm, coherent thought, it will have accomplished an important part of its mission.

It would be a delightful task, but impossible, to thank all who have encouraged and helped the author in writing the book. The list of such would include former teachers, colleagues at Boston University and other institutions, students, stenographers, and others. Special thanks are due to Professor Mary W. Calkins and Professor Albert C. Knudson for suggestions based on a reading of the manuscript as

a whole; to Dean William M. Warren, Professor Norton A. Kent, and Professor William G. Aurelio for criticisms of certain chapters; and to my wife and my mother for their constant helpfulness throughout the writing of the book.

E. S. B.

NEWTON CENTER, MASSACHUSETTS,
August 26, 1924.

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AN INTRODUCTION TO PHILOSOPHY

CHAPTER I

THE PHILOSOPHICAL SPIRIT

§ 1. PHILOSOPHY EXISTS

It is no simple matter to define philosophy. One thing, however, is certain; namely, that there is such a thing as philosophy. Every library of any consequence has books dealing with it; colleges and universities have departments and professors of it; the names of philosophers are inscribed on public buildings and memorial tablets; and history records the influence of philosophers on human affairs. Where there is so much smoke, there must be some fire. Philosophizing is beyond question a real activity of the human mind.

§ 2. PHILOSOPHICAL TERMINOLOGY IS DIFFICULT

It is equally certain that many terms used by men who are considered to be, or consider themselves to be, philosophers are all but meaningless to the average person of intelligence. Nietzsche once said that man is to superman as the ape is to man, either a joke or a sore shame. Many thoughtful men and women have, it must be admitted, found in the writings of philosophers no more than a joke or a sore shame.

Many philosophers have indeed failed to be either interesting, or clear, or convincing. Much of the evil repute of philosophy is due to the philosophers themselves. If you

read Spinoza, or Schopenhauer, or John Stuart Mill, or Bergson, or James, or Bowne, you know what they mean; or at least, if you do not, you have to admit that it is your fault, not the philosophers'. But if you read Plotinus, or Kant, or Fichte, or Hegel, or many contemporary writers, you have to struggle through a barrage of jargon before you can begin to penetrate their positions. Their terminology is much more cumbersome than it need be. There is, as Berkeley says, "a great number of dark and ambiguous terms."

Yet, objections to the literary form of philosophical writing are only superficial. They are much the same as the objections that a European makes to Chinese food; or that a dyed-in-the-wool conservative makes to change: namely, that he is not used to it. The real trouble with philosophy is not a matter of words. The calculus cannot be put in words of one syllable; all rigorous thinking demands a technical vocabulary.

§ 3. THE PROBLEM OF PHILOSOPHY

The difficulty about philosophy, then, arises not alone from the language that philosophers use, but from the very nature of what philosophy is. Philosophy may be defined as the attempt to think truly about human experience as a whole; or to make our whole experience intelligible. The world is its parish. Everything in the universe, which in any way enters into human experience, or affects, or is known by human beings, is of interest to philosophy. Now the universe is inexhaustible. Any fact in it may be studied from many different points of view; new facts have a way of cropping up every second; the understanding of any fact involves our taking into account its relations to all

other facts. A very superficial survey of our experience would thus suggest that philosophy, like woman's work, is never done. If philosophy is difficult, it is not wholly the philosopher's fault. It is partly the fault of the universe. We live in a difficult world. Experience has many sides, many problems, many possibilities. The philosopher doesn't make the universe or its difficulties. He simply tries to understand it; he is, as the Greek word [1] says, a lover of wisdom.

§ 4. THE LIMITS OF PHILOSOPHY

At the outset of a book on philosophy, it is well to be entirely frank; and to admit that—philosopher or no philosopher—none is wise enough to tell what wisdom absolute may be; or fully to understand what experience as a whole really means. No philosopher or philosophical system has ever comprehended the perfect round of truth. But this is no reason to turn away from philosophy; on the contrary, it is one of the secrets of its charm. No one can draw a mathematically straight line. Should we therefore give up every effort to draw lines as straight as possible? Is not a relatively straight line, such as we can draw with a ruler, far better for human purposes than lawless irregular scrawls? No one can know completely what goes on in the mind of any other person. Should we then cease to trust and love human beings? Every human venture is made within the limits of the finite and imperfect; yet every human venture adds in some way, for good or ill, to our knowledge of ourselves and the world we live in.

He then who undertakes to think about the meaning of human experience has started on an endless task, a task

[1] Philosopher, *φιλόσοφος*, a lover of wisdom.

for an immortal spirit (if such there be); a task every moment of which has its perils and its zest, its despair and its hope. If one desires an easy, vegetable existence, it is doubtless better to abstain (as much as possible) from thinking, and to enter the whole of philosophy on the *Index Expurgatorius.* But if one aspires to truth, or goodness, or beauty, one must think. Such are the wonder and curiosity of the mind that it is only by extirpating whole areas of human nature, that is by spiritual suicide, that one can live without thinking about problems which are essentially philosophical.

Indeed, we might go further and say that every human being has a philosophy, such as it is; for every one entertains some opinions about the meaning—or meaninglessness—of his experience. It would be over-flattering to say that every one is more or less of a philosopher; for there is a great gulf fixed between the holding of philosophical opinions and the genuine philosophical spirit which holds no opinion that it has not earned a right to hold by intellectual work. Nevertheless the unreasoned opinions of crude popular dogmatism, as well as the thoughtful conclusions of the skilled reasoner, are a tribute to what Schopenhauer has called "Man's need of metaphysics," and tend to prove the point, that, while all human philosophy is imperfect, human nature obstinately refuses to abandon the philosophical quest for truth. The imperfection of our system cannot quench the philosophical spirit.

§ 5. PHILOSOPHY AS A SPIRIT OR METHOD

It is clear from what has been said that philosophy does not consist in the holding of a certain set of opinions, or even in the possession of a certain body of knowledge. Every

philosopher will, it is true, have some opinion; and some knowledge is a necessary prerequisite to any philosophical thinking: but neither the opinion nor the knowledge is philosophy. Philosophy is essentially a spirit or method of approaching experience, rather than a body of conclusions about experience. This statement should not be taken to mean that it makes no difference what one's conclusions are, as long as one has the right spirit, for one's philosophical conclusions are of very great moment, both theoretically and practically. It means rather that opinions, even true opinions, without a reasoned understanding of what they mean and why we hold them, are below the level of philosophical thought. A parrot might repeat a series of philosophical truths; but a parrot philosopher does not exist.

The philosopher, of course, aims at true conclusions, as the mountain-climber aims to reach the mountain top. Like the mountain-climber, also, the philosopher searches for the way to the top—a way that leads from the valleys and lowlands of every-day experience to a view of the whole landscape. He who holds his opinions without knowing or caring why is like one who has been transported to the mountain-top in an aeroplane, and left there alone. He is surrounded by clouds; he does not know whether he is awake or dreaming; he knows neither where he is nor the way to anywhere else. The worst service that can be done to the mountain-top is for such a befuddled visitant to extol its beauties. Likewise, angels weep when they hear divine truth proclaimed by one who has never thought his way up to the heights where the truth dwells.

§ 6. THE PHILOSOPHICAL SPIRIT IS NOT ABSENCE OF THOUGHT

It is very difficult to give a precise and self-explanatory definition of this philosophical spirit with which we are concerned. It is perhaps easier to tell what it is not than to tell what it is. We may begin by saying that the spirit of philosophy is absent where there is no serious attempt to ask what things mean; where things are taken for granted without being understood; where events are left separate and loose, as mere brute facts, instead of being correlated and interpreted. Random observation, disconnected ideas, unquestioning belief and unquestioning doubt,—all these are evidently unphilosophical.

§ 7. NOT ALL THOUGHT IS PHILOSOPHICAL

The philosophical spirit is also frequently absent where there is a connected system of ideas. The mentally unbalanced are often victims of systematized delusions about the nature of reality; G. K. Chesterton has said that the insane are the only truly logical beings. Subjects of post-hypnotic suggestion are able to create quasi-logical "reasons" for their extraordinary behavior; religious fanatics and extremists find grounds for the most untenable of beliefs. The seeker for truth should remember that not all correlation of ideas is philosophy, that not every appeal to reason is reasonable. There are spirits having the form, but lacking the power, of rationality; of such beware.

One of the perils of the philosopher is what psychologists call "rationalization." Rationalization is the process of constructing a system of ideas, the real function of which is to justify some preëxisting desire or belief, without any

attempt objectively to examine that desire or belief with reference to its truth. It is the opinion of some writers that much, if not most, human thinking has been of this sort. John Dewey, for example, holds that substantially the entire history of philosophy from Plato on has been such rationalization in support of preëxisting moral and religious beliefs.[1] Robinson[2] has given popular expression to this view.

Every thoughtful person is conscious of how profoundly he is influenced by desires and beliefs originating in his physical organism or his early training. Rationalization of these desires and beliefs is a subtle foe to the philosophical spirit; but men like Dewey and Robinson appear to overlook the fact that wholesale rejection is just as undiscriminating as wholesale acceptance. Rationalization of our desires is certainly not worse than rationalization of our antipathies; and many are falling prey to the latter. The philosophical spirit should shun all mere rationalization, and should examine not all our beliefs alone, but also their hidden foundations in the light of experience as a whole. A belief that survives this test is a belief worth having.

§ 8. THE PHILOSOPHICAL SPIRIT DISTINGUISHED FROM THE SCIENTIFIC

Whatever, then, is thoughtless or unreasonable or is mere rationalization is unphilosophical; but it does not follow from this that all that is thoughtful and truly reasonable is philosophical. Science is not identical with philosophy; and the scientific spirit is in some respects to be distinguished from the philosophical. Science and philosophy are alike

[1] Cf. Dewey, *Reconstruction in Philosophy*. Chapter I.
[2] *The Mind in the Making*, p. 41.

in that each, animated by an impartial love of truth, seeks to understand experience intellectually. But their differences are important. The sciences specialize; they deal with restricted fields of human experience, such as matter and motion, chemical changes, or the phenomena of life. Philosophy is inclusive; it aims to interpret what is common to all fields, and to understand the relations of the special sciences to each other. Science is analytic; its laws are statements about the relations of the parts which analysis has revealed. Philosophy is synoptic; it does not omit the necessary work of analysis and synthesis, but it lays stress on the properties which experience taken as a whole reveals.[1] Hence science has often been said to deal with phenomena (things as they appear in our experience), philosophy with noumena (things as they really are for valid thought).

Science starts with the assumption made by "common sense," that there is a world of real space, real time, and real matter; that we have minds which are conscious of this world through our senses and reflection on sense data, and that all these things truly are as they appear to be. So evident does this seem to "the man on the street" (who figures largely in philosophical discussion) that when he hears of philosophy's raising questions about these matters, he is confused and inclined to be impatient. Science begins where common sense begins, and does not, like philosophy, make a business of criticizing the assumptions of every-day life with reference to their meaning for experience as a whole.

[1] The fact that wholes have properties that their parts do not have is one of the most important facts about our world, and philosophy's deepest interest is in this fact. Professor Spaulding, a protagonist of analysis, admits the fact, but characterizes it as non-rational (Holt and others, *The New Realism,* page 241). See § 11, (2) below.

It is however noteworthy that the world which science comes to describe is very different from the world present to our senses. Physics, for example, talks about matter,—but this matter is not said to be colored, or sounding, or sweet or sour; only the so-called primary qualities (of mass and motion) belong to the matter itself, whereas the secondary qualities (of color, brightness, sound, taste, etc.) exist only in our consciousness as the result of the action of the primary qualities.[1] Thus science moves fast and far from the opinions of crude common sense; yet not so fast nor so far as philosophy! For science modifies common sense only in so far as the demands of investigation in some special field compel such modification; while philosophy challenges at the outset the assumptions of the sciences in order to find out whether they are true in the light of experience as a whole. That is to say, philosophy is critical[2] in a sense in which science is not; it is (to borrow Bradley's illuminating usage) skeptical in that it aims "to become aware of and to doubt all preconceptions";[3] not that the mood of doubt is the final mood of philosophy, but that he who has never doubted has never crossed the threshold of philosophy's dwelling-place.

Science, furthermore, is chiefly (and many believe, wholly) a description of the laws of phenomena. These laws are, for the most part, causal and mathematical. They are in form: if A, then B; if sodium and chlorine combine under proper conditions, then common salt is formed. Pure science ignores every consideration of value. It is true that common salt, for instance, is of value to man, and that

[1] The distinction between primary and secondary qualities was popularized in philosophy by John Locke.

[2] The terms *criticism, critical,* and especially *critique* are used technically in philosophy, under the influence of Kant's *Critique.*

[3] F. H. Bradley, *Appearance and Reality,* p. xii.

the results of science have transformed civilization in many of its aspects. Nevertheless, it is also true that no consideration of value enters into scientific law itself. All physical and chemical changes, all astronomical and geological movements are what they are whether we value them or not and whether we can use them to serve our ends or not; and it is the business of science to observe and record the laws of these changes and movements with sole reference to the facts. Indeed, it is only by the elimination of value-considerations that science can serve human life. On the other hand, philosophy, since its function is to interpret experience as a whole, must not only reckon with all the facts as described by the sciences, but also include an account of values and ideals. The question, What is truly valuable in life? is more fundamental than any question concerned with facts alone. Facts are means; values, ends. Facts and values are not, in reality, separable. If there were no facts (of conscious life), there would be no values; and if there were no values, it would not make any difference what the facts were. Perhaps there would be no facts! In so far as science thinks about facts apart from values, it is celebrating a triumph of abstraction. Philosophy seeks to be concrete; that is, it aims to see reality in its interconnection and interdependence. The place of values in experience is, then, one of the important problems of philosophy. Interest in values distinguishes the philosophical from the scientific spirit.[1]

In at least one other respect, science and philosophy differ; namely, in the kind of progress attained by each. Both science and philosophy are, it is true, developing. New discoveries in science and new movements in philosophy never

[1] See G. A. Wilson, "Philosophy over against Science." *Phil. Rev.*, 31 (1922), 257-268.

cease. Among men of science there is agreement about a large body of scientific truth; new "discoveries" are examined and tested, and are either incorporated into the body of accepted truth or entirely rejected. The borderland of uncertainty and ignorance is daily being explored and daily new areas are added to the empire of knowledge. The first glance, however, either at the history of philosophy or at its present status reveals the absence of any such rectilinear advance as science has made. In the beginning was the strife of systems;[1] so also it is now and for all we know ever shall be.

The lack of agreement among philosophers is one of the severest reproaches philosophy has to bear. If any system or point of view be as true as its advocates believe it to be, why does not every rational mind accept it, as every rational mind accepts the results of science? The answer to this question is found in the basic difference between science and philosophy. Science deals with special fields, with parts; philosophy deals with the whole of experience. We can all examine with our senses evidence about specific parts of the world; but the world as a whole, the final meaning of life, is visible only to the mind's eye. Because of the limitations of our minds and the inexhaustibility of the universe, it appears improbable that all finite minds will ever see the whole in the same way. Differences then are to be expected. Life is richer, progress more inevitable, development freer, when each point of view finds full expression.

Yet this answer does not wholly satisfy. Philosophy is supposed to be rational, true, universal; not subjective and individualistic. Yes; the rational, true, universal, is the goal for which all philosophers are striving. Just because

[1] This expression, from the title of a book by W. H. Sheldon, bids fair to become a standard philosophical term.

it is so high a goal, many views of it are possible, and no finite view completely adequate. We may ask, in Hegel's spirit, whether every view does not represent a genuinely needed side of truth, and whether the error of any thesis does not consist in the denial of its antithesis.

§ 9. THE PERILS OF THE PHILOSOPHICAL SPIRIT

Evidently the philosophical spirit is most ambitious. Almost as evidently, it is dangerous. It deals with the foundations and meaning of all life, with the human attitude toward the universe. A serious error in philosophy may well result in a permanently maladjusted life. It is easy to misunderstand our friends and our own minds; how much easier to misunderstand the cosmos! Errors in reasoning befall the best of us. Weariness overtakes us too often ere we have thought our way through. There are perils of wrong thinking and perils of half thinking. Moreover there is the even greater peril of falling into a panic as soon as one becomes aware of the strife of systems. One then straightway becomes an unreasoning skeptic, forgetting that skepticism itself is a philosophy, and forgetting that no success in philosophy or in life is ever won by the man who refuses to try.

A man may be fortunate enough to escape the dangers that have been described and still be a less worthy human being on account of his study of philosophy. One may, for instance, develop a permanently fault-finding attitude, or an air of conceited superiority, or an absurd and bombastically over-technical manner of speech because one has studied philosophy. These faults are clearly defects of the man, not of philosophy; but it is peculiarly the part of one who

aspires to philosophize, and thus to be reasonable, also to be reasonable in the art of living. Too many who think skillfully about logic bungle their thinking about their own conduct.

The hard-headed man on the street sees another peril in philosophy which is in his eyes more serious than what has been mentioned. He charges the philosopher not with intellectual defects or minor personal blemishes of life, but with a radical indifference to the affairs of the practical world. The philosopher theorizes when action is needed. This charge has been brought of late by men deeply concerned about industrial and social justice. Never before has the social conscience of the world been so deeply stirred, never have there been so many people fired with zeal for finding a more reasonable and just economic order. How are the classes and the races to live together in peace? The problem of finding the formula that is needed staggers the greatest minds. The ship of civilization is tossed by tempests, while the crew quarrels. In such a situation is it not clearly the duty of all good men to fall to and save the ship? Who but a selfish intellectual aristocrat could retire to the ship's library and study philosophy in a time like this? At best, the study of philosophy is a luxury; under present conditions it is selfish, parasitic, and anti-social. What bearing do the puzzles of epistemology and metaphysics have on social need? So runs an objection that is not infrequently voiced by earnest men to-day.

This objection is not wholly unreasonable in principle. There are times in an individual's life when action rather than reflection is needed. May not the present be such a time in world history?

No, we reply. It is most emphatically not such a time. If ever reflection were needed, it is now. If ever clear think-

ing about values, the goal of progress, the place of religion in life, were imperatively called for, it is to-day. To abandon philosophy now would be like throwing the captain overboard because he studies the charts instead of shoveling coal. Most social movements have been profoundly influenced by philosophy; the names of Locke and Rousseau, Hegel and Marx, Bentham and Mill, Bertrand Russell and John Dewey bear witness to this influence. Does man need God? Does he need the ideal values of the good, the true, the beautiful, the holy? Are the economic values to be viewed as wholly instrumental to higher ends? Must every social order be judged by its conformity with ideal values and by the opportunity that it affords its members to attain them? Is the production of worthy persons in a worthy society the chief end of man? Is service worth more with or without God? Is it wholly human effort or has God himself something to do with it? If these questions are of any importance, the social worker who ignores philosophical backgrounds is anti-social. The philosopher is the true servant of society.

From a different quarter, the religious camp, philosophy is also charged with being dangerous. Philosophy is said to be a foe to faith in life's highest and best. Wordsworth is sometimes quoted with unction:

> "Philosopher! A fingering slave,
> One that would peep and botanize
> Upon his mother's grave!"

In this charge there is some truth. The study of philosophy has often raised doubts and sometimes destroyed faith. No honest observer can deny that its study has occasionally caused spiritual disaster. But the same thing may with equal justice be said of marriage, the study of the Bible,

and diplomacy. None of these things is to be condemned merely because it sometimes has bad consequences. In each case, the question is to be decided by considering whether good or evil predominates.

Just as the good of studying the Bible probably predominates over the evil (although some Bible students come to distrust religion and perhaps even turn out murderers), so the good of philosophy predominates over the evil. It is true that certain types of philosophy are openly opposed to any religious world view; and that the exclusive study of such philosophies is dangerous to religion. But if religion be true, religion is more dangerous to those philosophies than those philosophies are to religion. Even so, religion needs philosophy. How can religion, without philosophical scholarship, show her truth and her superiority to opposing philosophies? How could doubts be solved without showing the reasonableness of faith?

If some philosophy has led to disaster, the remedy is more and better philosophy. The only reasonable answer to agnosticism and skepticism, or to any form of religious doubt, is to be found in philosophical reflection. If there are problems that philosophy cannot solve, if faith is an essential part of every sane life, then a philosophy that interprets experience as a whole is the best instrument for establishing this fact. Philosophy is a two-edged sword. It would be folly to cast away our most trusty weapon because some have cut their fingers on it.

Philosophy is in many respects dangerous. He who wishes comfort and security regardless of truth and right should turn back. He whose courage is weak, whose faith is timorous, whose desire for adventure has died out, should turn back. He who does not wish to think should turn back, for there appears to be no way of making experience intel-

ligible to the thinking mind that does not at the same time make it unintelligible to the unthinking. Those minds that, aware of the perils and seeking to avoid them, are willing to incur any necessary risk in pursuit of the truth are the dwelling-place of the philosophical spirit.

§ 10. VALUE OF THE PHILOSOPHICAL SPIRIT

When the thinker has braved pitfall and gin, if he perseveres he will find that philosophy is capable of imparting a new meaning to life, of adding worth to every experience. Let us consider some of these her higher functions.

Philosophy is the thinking attitude. Thinking in the true sense is the process of relating judgments logically to the end of solving some problem or problems. Much that is commonly called thinking is a mere holding of opinions, or awareness of associated ideas, or mental drifting. Thinking is an art requiring much practice. It must be learned, like swimming, skating, or aviation. All living involves judging, and in some sense, all living involves thinking, be it good or bad. Anything that can enlarge the power of thought is a boon to man. Much education is mere memory-drill, which is disturbed by no breath of real thought. In the study of mathematics, and of the sciences, and of the humanities, there should be constant challenge to thorough and precise or to broad and profound thinking. But there is no discipline that so constantly demands the power of thought as does philosophy. Philosophy cannot be learned. It must be thought out. The classics of philosophy are perhaps the best intellectual gymnasium in all literature. If there is such a thing as learning to think, philosophy is the master-teacher of the art.

Philosophy is not only the thinking attitude; it is also the truth-loving attitude. These two attitudes are distinct. One may think for practical ends only, disregarding truth, except such truth as serves the purpose; or one may have a high sentimental regard for truth, without being willing to pay the price of severe and disciplined thought, which alone can attain truth. Truth is an imperious mistress. Like untrue Vivien she sings, "Trust me not at all, or all in all." This means the love of truth, irrespective of results; and, paradoxically, the love of all truth, including truth about results. The impartial philosopher may find Schopenhauer's language extreme, but he will approve that philosopher's intent when he proffers a philosophy "whose pole-star is truth alone, the naked, unrewarded, unbefriended, often persecuted truth," and contrasts it with "that *alma mater,* the good, well-to-do university philosophy, which, burdened with a hundred aims and a thousand motives, comes on its course cautiously tacking, while it keeps before its eyes at all times the fear of the Lord, the will of the ministry, the laws of the established church, the wishes of the publisher, the attendance of the students, the good-will of colleagues, the course of current politics, the momentary tendency of the public, and Heaven knows what besides." [1] The philosopher, of course, does not have to withdraw from state and church and social relations; but he believes that all worthy institutions are better served by truth than by evasion.

Catholicity is another fruit of the philosophical spirit. It is the very life's breath of philosophy to be broadly inclusive; to take cognizance of every experience, interest, point of view. Certain figures in the history of philosophy may have been intensely partisan; but the greatest philosophers have been greatest in catholicity. When Hamlet said,

[1] *The World as Will and Idea,* Vol. I, pp. XXIX f.

"There are more things in heaven and earth, Horatio,
Than are dreamt of in your philosophy,"

he furnished ammunition to the anti-philosophers. But philosophy could well reply, "There may be much in the universe that has never entered into or affected human experience; but no one, whatever his mantic gift, could have any inkling of this unexperienced beyond without at once bringing some aspect of it into human experience, and so into the province of philosophy." If Horatio's philosophy omitted anything that man has ever done or thought, perceived or believed, hoped or dreamed or felt, it was not true to the task of philosophy!

This trait is intimately connected with another, which it naturally generates, namely tolerance. It is a difficult task to define precisely wherein true tolerance consists, or whether it has limits, or whether the intolerant should be tolerated. Without attempting a study of the casuistry of tolerance, one remains well within the bounds of truth when one counts philosophy among the powerful historical influences making for freedom of thought, tolerance of opposing creeds and opinions, and sympathetic recognition, not alone of the right to entertain different points of view, but of the truth to be found in all honest human thinking.

If, however, philosophy were merely tolerant, it might be criticized in two respects as spineless. Tolerance, it might be urged, is too weak an attitude. One should not merely tolerate, one should welcome different standpoints. Only the weak superman tolerates; the strong one greets strong comrades who are his rivals too. It might also justly be urged that if the philosopher cultivates tolerance at the expense of his own intellectual insight, he buys the virtue too dearly. If the philosopher were one who, without

thought of his own, surveyed with equal eye the truths and errors, the righteousness and the sins of the world, he would never have attained his position of eminence in human culture. It is precisely because he has found it possible to combine tolerance with positive conviction that he is respected by thoughtful men. The true philosopher is not he who holds no opinions and passes no judgments. "Cratylus, who finally thought he should say nothing, but only moved his finger" [1] acquires his fame from his mention by Aristotle, who thought that he should say a great deal. To assert that the typical philosopher is a man without beliefs is to caricature philosophy. The spirit that combines tolerance with conviction, open-mindedness with loyalty, yet compromises neither, is a mature product of philosophy at its best.

The most substantial work of the philosophical spirit still remains to be mentioned. Some of the values that have been discussed are often also acquired in other ways than through philosophy. The unique contribution of philosophy to human life is that it furnishes a tool for the interpretation of the meaning and goal of life; a background, which gives unity to our science, our art, our literature, our morals, our religion, indeed to our whole civilization and also to our most intimate personal experiences. He who knows what he thinks about fundamental questions, and why he thinks as he does, and who has faced life's meaning as a whole, has broken down the "water-tight compartments" into which (as James told us) men's minds tend to divide themselves; and he is able to move freely from any one part of his life to every other without running into obstacles or contradictions. His art and his morals, his science and his religion, will perform each its appropriate function, and each will live in

[1] Aristotle, Metaphysics, Γ, 1010a, 12-13.

harmonious coöperation with the other, in so far as the conditions of life render it possible. In short, to philosophize is to be a human being with one mind instead of a chaos of conflicting feelings, prejudices, and opinions. The prayer of the psalmist is, "Unite my heart to fear thy name." The philosopher's prayer is, "Unite my mind to understand thy universe."

§ II. PHILOSOPHICAL METHODS

In the foregoing pages there has been given some account of the philosophical spirit, and of the perils and prizes that await whoever partakes of it. This spirit is not a mere sentiment, but is concrete intellectual work. It remains within the province of the present chapter to inquire into the methods by which philosophy does its work.

There have been numerous conceptions of what proper philosophical method is. It would be futile to attempt to list every shade of opinion, but it will avoid much later confusion if we now mention some of the types of method that have been proposed and tested in the course of the history of philosophy. Some important methods (such as the transcendental or critical) will be omitted.

(1) THE RATIONALISTIC METHOD. Modern philosophy has been greatly influenced by Descartes, who is called a rationalist (in a special sense of that ambiguous word). His method was to doubt everything that can be doubted until he arrived at some indubitable certainty, which could be used as a secure basis for inference. He believed that his own existence as a thinker *(res cogitans)* was such a certainty. It could not be denied without being affirmed; when I doubt, I am thinking. He tried to show that the existence of God and of physical things could be deduced from the

fundamental truth of self-existence, and that in turn all the details of philosophy could be deduced from these. Later thinkers find many flaws in his logic, but his rationalistic method is clear. It is, to find a few fundamental concepts, which are often said to be axiomatic or self-evident, and to deduce what necessarily follows from them. The result is believed to be demonstrated truth.

Rationalistic method is an austere ideal. It is not lightly to be dismissed. It may be dubbed a "method of rigor and vigor" by Matthew Arnold, may be stigmatized as "tender-minded" by James, or "introverted" by Jung; it may be called abstract, artificial, *a priori,* fictitious, or what you will. These labels do not refute it. Whatever defects rationalism may have, it is the method of mathematics, perhaps the purest product of human reason. It has inspired sublime philosophies, and calls many minds from the contingencies of sense-perception to an ideal realm of necessary truth.

But sublime as is this ideal, few philosophers to-day would espouse it in the sense defined. It is too difficult to be sure that your fundamental concepts, standing alone, are absolutely certain. If they happen not to be true or complete, the whole system deduced from them is vitiated. Further, there is much in our experience, such as perceptions and values, that cannot well be regarded as the conclusion of a syllogism. A rationalistic philosophy will be doomed in advance to failure, if philosophy be an account of the whole of experience. Other defects will be apparent in the course of the discussion of the other methods.

(2) THE SCIENTIFIC METHOD. Closely related to rationalism in many respects, and sometimes called by that name, is what is known as the scientific method. It would be more precise to speak of scientific methods, for scientific method

in philosophy appears in at least two forms, the analytic and the experimental.[1]

The analytic method, as the name implies, holds that truth about the objects of experience is to be reached by complete analysis of perceived objects into their constituent parts, until parts are reached that can be no further analyzed,—like the point and instant in the mathematical analysis of space and time. The analytic method also takes account of the relations of the parts (synthesis). This method has been brought into prominence of late by the neo-realistic movement in England and America. The use of this method is of course confined to no one school. It is the common property of all, realists and idealists alike. An unanalytic philosopher is a round square, a monstrosity.

At the same time, difficulty arises when analysis is viewed as the only valid method of thought. This difficulty is illustrated by Spaulding's acute defense of analysis (referred to in § 8), which insists that complete analysis will discover whatever properties wholes may have as wholes, beyond the properties of the parts and their relations. He admits, however, that the existence of such properties as belong to wholes (properties of biological organisms, chemical compounds, atoms) is "a non-rational element in nature."[2] Right there's the rub! A conception of rationality that condemns the most complex and significant structures of our experience as non-rational would appear to be "cabin'd, cribb'd, confined, bound in" to a restricted and narrow use. It should not be accepted as the sole instrument of thought,—at least, not without search for a better one.

The other form of scientific method that is employed is

[1] See the author's article, "Personalistic Method in Philosophy," *Meth. Rev.*, 103 (1920), pp. 368-380.

[2] *The New Realism*, p. 241.

the experimental. This has recently been popularized by pragmatism. Like analysis, it is a thoroughly justified method; like analysis it has limitations in use. The sciences are built on experiment. Pragmatism does well to teach that we can never learn the full truth about any proposition or hypothesis until we test it, follow its leading, discover the particular consequences that flow from it. The method of experiment is not limited to the laboratory or to material instruments. The mind makes *Gedankenexperimente,* experiments of thought. Hegel [1] records an advertisement in an English paper of a book entitled, "The Art of Preserving the Hair, on Philosophical Principles." But philosophical experiments are not confined to hirsute or other physical realms; they deal with the spiritual life.

If the experimental method be wisely interpreted, it is an essential part of all sound philosophy,—but it is only a part. As we have seen, rationalism and analysis are both, within limits, parts of valid method; obviously, experimental method should not be so interpreted as to exclude these.

For another reason, the experimental method is incomplete. Every experiment is made under conditions that involve certain presuppositions, and aims at solving some problem. The result of the experiment is relative to those presuppositions and to that problem. Experiment as physical fact is lost motion if its results are not interpreted by a mind. Thought-experiments, likewise, are mere psychological play unless the mind that makes them interprets their meaning for experience as a whole. The experimental method must be subordinated to some higher principle of interpretation.

(3) THE ROMANTIC METHOD. The romantic method, if it may be called a method, is a reaction against the one-

[1] *Encyclopädie,* § 7.

sidedness of rationalism and science. This method is hard to define. Partisan romanticists may describe as romantic whatever is noble, and good, and original, and interesting. Partisan foes of romanticism often use the term to express contempt; for them, the romantic is the unscientific, the thoughtlessly emotional, the irrational.

The romantic method in philosophy may be described as the tendency to base a world view chiefly on feelings and instincts. Mephistopheles was a romanticist when he said,

> "Grau, teurer Freund, ist alle Theorie
> Und grün des Lebens goldner Baum."[1]

At first this would appear to be in flat contradiction not only to rationalistic and scientific methods, but also to all philosophy. If taken literally and exclusively, it doubtless is opposed to all sound reason. To base philosophy on feeling as opposed to thinking, on instinct as opposed to reason, is to abandon the very task of philosophy. Feeling without thought, if such can exist, is meaningless mental confusion. Without some element of thought, one feeling could not be distinguished from another, save in terms of pleasantness and unpleasantness. Unchecked feeling is notoriously erratic, transitory, and untrustworthy. Hardly the most extreme romanticist has meant to base his life on mere feeling. The romantic method must be taken relatively, if at all.

Despite its obvious defects and excesses, the romantic method makes a real contribution to philosophy. If philosophy be an interpretation of the whole of experience, any method that omits important aspects of life is partially unphilosophical. Romanticism calls attention to facts that rationalism and science easily ignore. The romanticist

[1] "Gray, dear friend, is all theory, and green life's golden tree."

asserts the rights of the heart against the arrogant head; points to facts of feeling and instinct that rationalism cannot deduce and that analysis tends to destroy. Less justifiable in itself than any other proposed method, it is useful as a warning against the narrowness of mere intellectualism. The ideal philosophy will take the life of feeling into account and will aim to understand not only its origin and structure, but also its function in adjusting man to his cosmic environment. To teach this is the service of romanticism.

(4) THE SYNOPTIC METHOD. The term *synopsis* was used by Plato[1] to mean the seeing of anything all together in one view. Plato saw that knowledge and education were incomplete as long as the special sciences were left separate and distinct. They must, he says, "be brought together into a *synopsis*." Merz in *A History of European Thought in the Nineteenth Century*[2] has introduced the Platonic term into recent philosophy, and Sorley,[3] Bosanquet,[4] and others have brought it into wider currency.

In the opinion of the present writer, synopsis is the characteristic method of philosophy. It means the viewing of any object or complex of objects as a whole. Philosophical synopsis presupposes that the rationalistic, scientific and romantic methods have all been tried, and that their results are before the mind. In synoptic reason, however, the mind does more than to review the separate facts of deduction, analysis and synthesis, experiment, and feeling. Knowing these facts, it sees them together and sees also the qualities of the object as a whole, which the other methods tend to omit, underestimate, or merely take for granted. Those who

[1] *Rep.* 537C.
[2] Vol. III, pp. 192 ff., Vol. IV, pp. 431 ff.
[3] *Moral Values and the Idea of God,* 2nd ed., p. 250, to which the reader should refer.
[4] *Implication and Linear Inference,* p. vi.

ignore the synoptic method are the objects of Goethe's criticism in his lines that have been quoted by philosophers, from Hegel on:

> "To understand the living whole
> They start by driving out the soul;
> They count the parts, and when all's done,
> Alas! the spirit-bond is gone!"[1]

No one can adequately understand any whole without considering it *as a whole,* as well as knowing its parts and their relations. No study of the parts of a human body will reveal the laws of the behavior of the organism as a whole. No investigation of the parts of a sunflower will discover the fact of heliotropism. No analysis of the "states of consciousness" into elements will do justice to the higher processes of emotion, thought, and self-consciousness. Synopsis without prior analysis is superficial and inarticulate; analysis without synopsis is the dissection of a corpse; synopsis and analysis combined yield the richest and completest knowledge of which the human mind is capable.

Synopsis, under various names, has been recognized by the greatest minds as the supreme philosophical method. It is what Plato, Kant, and Hegel called reason;[2] what Spinoza called *scientia intuitiva,* and Bergson, intuition, although it is true that the latter unduly divorces intuition from intellect. It is shown at work in the Hegelian dialectic and in Eucken's noölogical method; it is the principle of logic in Bradley and Bosanquet.

The method of synopsis suffers from the defect of being

[1] The translation is from Sorley, *Moral Values and the Idea of God,* p. 248.

[2] For an interpretation of the synoptic function of reason, see Royce, *The Sources of Religious Insight,* pp. 79-116, and Wallace, *The Logic of Hegel* (translation), pp. 400-402.

often incapable of rigorously precise application. Its results are ordinarily not susceptible of being demonstrated mathematically. It is, however, the only instrument by which thought can hope to reach an understanding of process and life and mind. Not every synopsis is valid. Every synopsis is, in a sense, an hypothesis until it has been tested by all the means at our disposal. The process of forming hypotheses in the sciences is a synoptic process. If the goal of philosophy is to be reached or even approached, it will be by the use of synoptic method. Indeed, the philosophical spirit, which we have been considering in this chapter may well be described as the synoptic spirit.[1]

§ 12. WHAT WE MAY EXPECT FROM PHILOSOPHY

As we prepare to advance from this preliminary acquaintance with the philosophical spirit to a study of the way it goes to work on particular problems, it would be well to cast up accounts in advance and ask ourselves how much we may expect from philosophy. The trite but true answer may be given, That depends on how much you put into it. This does not, however, tell the whole story. No matter how much one puts into philosophy, disillusionment may ensue if one expects too much, and unduly meager results will be attained if one expects too little. Even the old virtues of patience and perseverance, humility and loyalty, combined with clear-headed attention to the problems, will not carry any finite being in finite time to a comprehension of the whole of infinite truth,—although some philosophers may appear to have been pretty confident that they knew the whole story. There will always be need of growth and

[1] See the further discussion of method in Chapter IV, § 7.

revision with the increase of experience and insight. There will always be a realm of obscurity and uncertainty. There will be the disappointment of finding that there are many important problems on which reasonable minds seem unable to agree, although this disappointment will nourish the spirit of tolerance and will incite further effort. Yet, whatever the limitations and disappointments incident to its pursuit, philosophy promises much to him who approaches it in the right, that is, the truly philosophical, spirit. The joy of thinking about high themes is a satisfaction unknown to the man of narrow interests. Moreover, philosophy can promise its faithful student a better understanding of himself, of his fellow human beings and their thinking, of the real world, and of the value and purpose of life,—an understanding that is capable of indefinite expansion. Philosophy is like the soul, for, as Heraclitus says, "You will not find the boundaries of soul by traveling in any direction, so deep is the measure of it."[1]

[1] Bywater's ed., frag. 71. Burnet's translation, *Early Greek Philosophy.*

CHAPTER II

HOW CAN WE DISTINGUISH TRUTH FROM ERROR?

§ I. SKETCH OF THE DEVELOPMENT OF LOGIC

There is no single order in which the problems of philosophy must be taken up. Some would prefer to plunge at once into the task of interpreting experience, making progress from the point where one happens to be and profiting as best one can by one's mistakes. Others would insist that the true beginning of philosophy lies (as Lotze has suggested) in ethics. Others would begin with psychology, or with biology, or with mathematics, or with physics.

It is possible to begin in any one of the ways suggested; but it is a mistake to maintain the exclusive right of any one starting-point. If philosophy could have her own way, regardless of the conditions of human nature, her choice would doubtless be to begin everywhere at once, and to proceed in all directions at the same time. The human philosopher, however, must select some starting-point.

It appears to the present writer that the best way to begin the study of philosophy proper is to attempt to answer the question: How can we distinguish truth from error? No progress whatever can be made in understanding our experience without some means of distinguishing what is true from what is not true.[1]

The name of the science that is concerned with the dis-

[1] Bowne, *Theory of Thought and Knowledge*, p. 293, appears to deprecate the importance of this problem.

covery and formulation of the laws of correct or true thinking is logic.[1] Aristotle was the first to organize logic as a science. He founded what is known as deductive or syllogistic logic. All reasoning, he observed, proceeds by relating judgments in such fashion as to draw inferences from them, or to develop their implications. Aristotle discovered that there were certain ways in which judgments may be combined that will lead to valid conclusions. He also observed that these modes of combination hold whether the subject matter of the judgments concerned be true or false, possible or impossible in reality, so long as the reasoning does not contain a self-contradiction. For instance, if it be true that ignorance is bliss, and that not knowing where your next meal is coming from is ignorance, it follows necessarily that not to know where your next meal is coming from is bliss. Even the untutored mind can perceive that this reasoning is correct, and also that its conclusion is (under most circumstances) false. Hence the Aristotelian logic yields only the laws of correct or valid thinking; it does not satisfy our demand for truth. It is, at best, "formally" true; more is needed to establish "material" truth. All true thinking must abstain from violating the laws of formal logic; but obedience to the laws of formal logic does not ensure true thinking. Just as one's behavior may be formally correct without being morally right, so one's thinking may be formally correct without being true.

The next great step forward in logic was made when inductive logic was developed. Inductive logic is the study of scientific method, particularly of the methods of establishing

[1] Some, especially neo-realists, object to defining logic as a science of thought, and would prefer to regard it as the science of the most universal characters of objects.

relations of cause and effect among phenomena. Syllogistic logic proceeds from premises, of which at least one is general, to a conclusion, which is particular (or less general), and hence it is called deductive. Inductive logic proceeds from a study of the actual facts of experience, which are particular (like ants, or snow-flakes, or plantain leaves) to the discovery of universal causal laws. This type of logic, which evidently brings thought into contact with reality as merely deductive logic fails to do, has been developing as modern science has grown. Sir Francis Bacon and John Stuart Mill made important contributions to inductive logic.

The highest stage of logical theory may be called philosophical logic, or the logic of truth. The nomenclature of this stage is not, however, so fixed as is that of the two other stages. Having learned the formal principles of correct thinking and the laws whereby the sciences may make valid inductions, the mind still inquires about truth and error. Are we to be satisfied with formal correctness and with the causal laws of the special sciences? Must not truth about experience as a whole include answers to questions that the sciences do not even ask?

Modern philosophy may be not unjustly described as a search for the logic of truth. Ancient philosophy, particularly in Plato and Aristotle, has, it is true, anticipated much of the best in modern philosophy on this as on other problems. But consciousness of the logical problem has been more clear-cut and more widely diffused in modern thought. The rationalism of Descartes and the analytic empiricism of Locke and his school were alike concerned with the foundations of philosophical logic, as was the critical philosophy of Kant. More than any of his predecessors, however, Hegel put logic into the foreground of philosophy, and went so far

as to identify logic with metaphysics. His philosophy, based on the synoptic method, regards truth as a coherent, organic whole.

Hegel's theory of truth has influenced many who have not accepted his metaphysical views, and some of the best work of recent logic (by Bradley and Bosanquet, for example) has been under Hegelian influence. On the other hand, the accounts of truth worked out by the analytic method of the new realism and the experimental method of pragmatism are consciously intended as criticisms of Hegelianism.

§ 2. THE MEANING OF TRUTH

Before taking up a direct study of the various possible answers to the problem of the chapter, a preliminary question should be raised. We are to discuss the tests of truth. What, then, is truth? This question, as we ask it, does not mean, What is the whole truth about things? Nor does it mean to imply the skepticism of a scornful Pilate. It means simply, How shall we define the word *true?* Sometimes, evidently, we denote by it the moral quality of loyalty, or of honesty, or of veracity. Logic is interested in the term, not as applied to the character of persons, but as applied to judgments.

It is true that two plus eight are ten; that sulphuric acid is composed of two atoms of hydrogen, one of sulphur and four of oxygen; and that the Pilgrims landed at Plymouth in 1620. What common meaning, if any, attaches to the term *true* under these and all conditions? An examination of cases in which we use it, will lead to the conclusion that we ordinarily mean to assert that a true judgment is one that describes or refers to a state of affairs that is as

described. In other words, a true judgment is one that corresponds to reality.

Let us adopt this definition for the purposes of the present chapter; and proceed to consider the merits of the chief tests (or criteria) of truth that are actually used by human beings in deciding whether a proposed belief be true. The order in which the criteria are discussed is intended to be both logical and, roughly speaking, historical. It will be seen that the various criteria, at certain points, overlap, but it will also be seen that each criterion represents a distinct point of view and emphasis. The criteria to be discussed are:

1. Instinct
2. Custom
3. Tradition
4. *Consensus gentium*
5. Feeling
6. Sense experience
7. Intuition
8. Correspondence
9. Pragmatism
10. Coherence

§ 3. INSTINCT AS CRITERION

It is often said that war is a necessary and even justified human institution because it is instinctive to fight; the judgment about ethical truth is, then, based on an appeal to instinct. Or it is said that religion is true because in every man's nature there is a religious instinct. Or it is argued that the highest and most beautiful forms of love have no more significance than the instinctive impulse to procreation in which they take their origin.

Little reflection is needed to show the impossibility of successful appeal to instinct as a criterion of truth.

There is very great difference of opinion about the definition of instinct. Some hold that the term should be abandoned. At any rate, it is difficult to distinguish between what is inherited and what is acquired. Instinct (whatever it is) is modified in its development by intelligence and intelligence by instinct: no one not an expert,—and the expert least of all,—is competent to say just how much of human nature is instinctive and how much acquired.

Granted, however, that instinct has been defined and distinguished from the rest of our psychological and biological life, it would be evident that this work of definition, which carries us outside of instinct, and compares instinct with the rest of life, must be the work of some other function than that of instinct itself. In other words, if instinct is significant for truth, it clearly cannot be the sole fundamental criterion. Indeed, it is safe to say that no serious thinker ever thought that instinct could stand alone as a criterion of truth.

We must, however, go further, and say that instinct is never a safe test of truth; for instincts conflict with each other. Sociability is said[1] to be an instinct, but so is jealousy; sympathy and resentment, anger and love, fear and curiosity are all in the list. If instinct is a criterion of truth, are we to trust the beliefs that arise from sympathy or from resentment, from fear or from curiosity? To this query instinct itself has no reply. On the plane of instinct, every instinct has equal right; no instinct, merely because it is an instinct, is sufficient ground for believing anything. Therefore the militarist and the religionist alike are doing the cause dear to them an ill turn when they ask us to be-

[1] All of the instincts named are from the list of W. James's larger *Psychology*, Vol. II, Chap. 24. See E. C. Wilm's forthcoming book, *The Theories of Instinct*, for a survey of the subject.

lieve in the moral necessity of war or in the existence of God on the basis of man's instincts. Such appeals may stir emotions and even produce results; but they make the judicious grieve.

If we are therefore to conclude, as we logically must, that instinct is not to be trusted as a criterion of truth, it by no means follows that instinct is always wrong. Science, philosophy, civilization itself would not long survive were it not for the instincts; if the instinct of curiosity, for example, were to be seriously weakened, the nerve of progress would be paralyzed. Rejection of instinct as criterion does not imply rejection of instinct from the content of reasonable life. It implies rather that instinct makes its proper contribution to truth only when criticized and controlled by some other function.

§ 4. CUSTOM AS CRITERION

Primitive man was doubtless a creature of instinct or of what has been commonly believed to be instinct. But at a very early point in the history of the human race, the standards to which his action conformed were not merely those of instinct; the behavior of the group, the beliefs and ideals of the group, were authoritative for the individual. Over against the conflict of instincts and emotions, clan or tribal customs appeared to furnish security and stability to the individual and to his interests. It probably never occurred to primitive man to question the truth of the beliefs associated with the customs of his tribe any more than it occurs to many a citizen of the modern world to question the absolute honesty and trustworthiness of his government, his bank, or his church. But the time comes when tribe clashes with tribe, and custom with custom. Governments

make secret treaties and public denials; banks and churches fail. History makes it evident, beyond the need of labored argument, that, however much value there may be in custom, it is not a criterion of truth. No belief is true merely because it is customary to believe it.

§ 5. TRADITION AS CRITERION

The feeling that what is socially approved must be true is hard to eradicate. Many who would agree with the contention that custom is no valid test of truth would still argue that tradition is such a test. While custom is more or less capricious and untrustworthy, the case stands differently with tradition; for it represents a type of belief that has been tested by successive generations and has been able to assert itself amidst changing customs and conditions. Common sense pleads the cause of the traditionalist; for (it would justly ask) if millenniums of past human effort have been unable to discover truth, what prospect has the modern philosopher of finding it?

The legitimate function of tradition in civilization is impressive; in art, in religion, in education, in morals, in law, and in other departments of culture, tradition is the source of much that is highest and best. Without its traditions, humanity would soon be reduced to barbarism. Unappreciative hostility toward the past is not merely ingratitude; it is cultural suicide.

Yet after all this has been said, no proof has been offered that tradition is the test of truth for which we are searching. In order to reject mere tradition as a criterion of truth, it is not necessary to listen to the raucous voices of the young people who write the current literature of impuritanism; he who knows the traditions of the race will remem-

ber that Socrates taught that the unexamined life is not worth living, and that Isaiah's God had only scorn for those whose fear of him was "a tradition of men that hath been taught them."[1] One cannot be true to tradition without discriminating between what "hath been said to them of old time" and what "I say unto you." Only a restricted provincialism can ignore the fact that there are conflicting traditions. Tradition, like the White Queen, sometimes believes as many as six impossible things before breakfast. Tradition, then, must be judged by some standard which is valid for a more substantial reason than that it is traditional.

There may, then, be truth in tradition, as in instinct or custom; but neither tradition nor custom nor instinct is a principle for testing truth.

§ 6. CONSENSUS GENTIUM

A final attempt to find a criterion within the field of social agreement has been made by those that point to the *consensus gentium,* or universal agreement, as the desired criterion. This principle has had the endorsement of distinguished minds. Cicero in *De Natura Deorum* i. 16, ii. 4, asserts it, "De quo autem omnium natura consensit, id verum esse necesse est,"[2] as does the famous criterion of the Church, "Quod semper, quod ubique, quod ab omnibus creditum est."[3] Any belief that is universally shared by all human beings would appear to reveal something true about the structure of the human mind and perhaps about the universe.

Yet a critical inspection of this criterion reveals its inade-

[1] Is. 29: 13d. American Standard Version.

[2] "That concerning which the nature of all men agrees is necessarily true." The references are given in Wallace, *The Logic of Hegel,* p. 408.

[3] "What has been believed always, everywhere, and by all."

quacy. While any wide-spread belief may be true, and while all sincere belief is worthy of respect, the following considerations show how untrustworthy is the *consensus gentium* as a criterion.

It is exceedingly difficult, indeed impossible, to prove that any proposition has been held by all men to be true. Records of the beliefs of all men are not extant.

If there is universal agreement, it is with reference to a very meager set of beliefs. If all men believe in the existence of a material world, the views about the nature of matter are so diverse that the common elements in this belief are exceedingly vague.

Precisely in the most important matters, such as the meaning of life, the right social and economic relations, the nature and being of God, there is the most striking difference of opinion among men.

Even if there were universal agreement on certain beliefs, this would not constitute proof of those beliefs.[1] There has been substantially universal agreement about the size and shape of the earth, and about many other matters; but later investigations have shown these beliefs to be false. The *consensus gentium* has to yield to the decision of a higher court. What every one once held to be false and impossible is now held to be true, or is a matter of every-day experience. What every one once held to be true and necessary is now seen to be false and impossible. "Common sense" changes from age to age, and is itself largely the deposit left by the thought of scientists and philosophers.[2]

Not only does the *consensus* suffer from the defects mentioned, but also it contains no principle for their improve-

[1] Cf. Hegel, *Encyclopädie,* § 71.

[2] See A. C. Armstrong's article, "Philosophy and Common Sense," *Phil. Rev.,* 25 (1916), 103-120.

ment. If universal agreement be the criterion of truth, and people agree universally on some error, there would appear to be no way of deliverance from that error, so long as one trusts agreement as criterion.

We can draw only one conclusion from the evidence: namely, that widespread and even universal agreement among men is not a criterion of truth. What is universally believed (if there be anything of the sort) may well enough be true; but it is not known to be true on account of its being universally believed. It is pleasant to agree with our fellow-men; but this pleasure does not exempt us from the duty of asking whether the points on which we agree are really true.

§ 7. FEELING AS CRITERION

Discouraged by the attempt to discover a criterion in the facts of common belief, one may fall back on one's own feeling as the ultimate test of truth. At bottom, why do I believe a thing to be true? One may reply, Simply because I feel it to be true. I cannot get rid of the feeling, which is a fact in my life; the thing must be true!

While very many human beings actually do base their lives on feeling, and many popular religious and political leaders appeal to it, feeling is manifestly no criterion of truth. What was said about instinct applies here.

There are good and bad, true and false, permanent and changeable, feelings; our feelings are determined by our mood, our environment, our digestion,—by anything and everything. Here, if anywhere, is the place to apply Goethe's saying, "In der Beschränkung zeigt sich erst der Meister." [1] He who does not limit and control his feelings

[1] "In self-limitation the master is revealed."

has little prospect of finding either goodness, or beauty, or truth. Feeling is a very important part of life. Only a caricature of philosophy represents it as unfeeling, or the philosopher as a man without human emotions; nevertheless philosophy cannot recognize feeling as a test of truth, except of the truth that the feeling exists. The most intense and satisfying feeling is not the slightest ground for inferring the truth of the belief that the feeling asserts to be true. Feelings often are sound, and often lead us to truth, undoubtedly; but just as often they lead us to error and evil. Feeling cannot stand alone.

§ 8. SENSE EXPERIENCE AS CRITERION

Leaving the vagaries of feeling, the mind, in its search for something that can be depended on, is greatly encouraged when it finds the data of sense-experience. Sensation is a stable factor in life, independent of our will or whim, and giving us contact with outside reality. Here appears to be a field in which the merits of the social and the individual points of view are combined; on which the sciences have built; to which every-day life constantly makes appeal, and about which we have a clear-cut assurance. We may doubt the validity of our instincts, or of the customs and traditions of society, or of the *consensus gentium* at certain points and still retain our standing in polite society; but if we seriously doubt the evidence of our senses, men look strangely at us and segregate us from our fellows. Here, if anywhere, the *consensus gentium* is unambiguous: all men agree that if we perceive by our senses a red apple on the tree in the orchard, there really is a red apple on the tree in the orchard.

That my sensations are facts of experience there can be

no doubt; all thinking has to start with the immediate facts of consciousness as given; and to deny that I perceive the various qualities of color, sound, and the rest is to deny that I have experience and that there is anything to think about. If any one were mad enough to question the fact of sense experience, he would thereby have rendered it logically impossible even to use sense experience in communicating with others, or to appeal to that experience as something that can be mentioned. If, then, we are to be reasonable, we must start with the given facts, among which the facts of sense are obvious, solid and indubitable. Nothing else could be the criterion of the existence of a sensation than the sensation itself; if you perceive the sense datum, no argument could increase or diminish the certainty of your perception; and if you do not perceive it, no argument could call it into being. It stands and falls in its own right; is it not then an adequate criterion of truth?

Doubtless our experience of the sensation is our only criterion of the fact that we experience it; but it is doubtful whether sensations can be trusted to tell us the truth about anything more than the obvious and barren fact that they are experienced. Nevertheless, an impressive array of great minds has held that sensation is the last court of appeal. Notably is this true of empiricists of the sensationalist or positivist school, of which Hume, Comte, and Mill are great representatives. These men have argued that what was given in sense was certain; what could not be perceived by the senses was unverifiable speculation, worthy only of being consigned to the flames. It is, however, significant that none of these thinkers has held with rigid consistency to the sensationalistic principle; into the thought of all of them has crept at some point a recognition of objects that it is impossible to perceive by the senses, such, for example, as con-

sciousness. Hence, in spite of the plausible arguments for sensation as a test of truth, it is important to consider its defects as a criterion.

If sensation alone be the test of truth, every sensation would, of course, be equally valid, for each sensation would be the test of its own truth. But we all believe that our senses sometimes err, and that occasionally things are not as they seem. The red apple on the tree in the orchard is doubtless there, but the oasis seen in a mirage is not. Railroad tracks appear to converge and meet at a distance, but no one believes that they actually meet. The sensations of the color-blind are supposed to be misleading. Illusions and hallucinations of sense are recognized by all psychologists. Ancient skepticism early directed attention to the untrustworthiness of the senses.[1] Sensation, then, is not in itself a criterion; but needs to be supplemented, reviewed and criticized by the work of thought. Sensationalists have generally seen the necessity of admitting this fact, although they have not been willing to admit its implications.

How, then, am I to be sure that a state of consciousness is a valid sensation, and not a misleading and merely subjective imagination or hallucination? Psychological experiments have shown that it is not always possible introspectively to distinguish between sensation and imagination. As Kant in a famous passage[2] has remarked, "A hundred real dollars do not contain any more than a hundred possible dollars." The only final means of distinguishing between the possible and the real, the imaginary and the perceived, is to take more than the given perceptions into account.

The fact that we ourselves or other persons have sensations

[1] See Weber, *History of Philosophy*, pp. 153-156.

[2] In his discussion of the ontological proof of the existence of God, *Critique of Pure Reason*.

cannot itself be verified by sensation. There is no sense organ or function whereby I can have a sensation of my own sensation of blue. How much less can I have a sensation of the sensations going on in the minds of others! If, then, I believe that such sensations exist, it is because I have used some criterion beyond my immediate sensations themselves.

There are certain other facts besides sensation itself that cannot reasonably be denied, but that can never be verified by sense perception. A few illustrations will suffice. We certainly believe that real things, such as houses, streets, automobiles, exist in some sense whether we are perceiving them or not. The existence of the object is something more than our perception of it; existence itself, then, can never be perceived by the senses. Further, the mind is so constructed that it constantly uses universals; we speak of all triangles, all falling bodies, all space; without universals, scientific law would tumble into a mass of ruins. Yet nothing is so clear as the fact that it is impossible, as Aristotle says, to have a sense-perception of the universal;[1] for the sense-perception is here and now, while the universal is what is true always, and everywhere and for all (at least for all right-thinking minds). Further, self-consciousness, an every-day experience, is incapable of being tested by sensation; for the experience of being a self is an inner fact that could never be reached by any sense organ, and no serious thinker has ever pretended that he had a sensation of selfhood. Indeed, Hume's failure to find the self on empirical principles was to him a source of great difficulty.[2]

[1] Aristotle, *Posterior Analytics,* I. 31 (87b, 30f.).

[2] He frankly says, "All my hopes vanish when I come to explain the principles that unite our successive perceptions in our thought or consciousness." *A Treatise of Human Nature,* Vol. II, Appendix, p. 319 (Everyman's Library edition).

Finally we may mention ideals and values of whatever sort. If an ideal has any truth, that truth could never be tested by sensation; for the very nature of an ideal is to judge and control our life of sensation rather than to be judged or controlled by it.

Sensation, then, is evidently not a test of all truth; and, important as sensation is, we must seek further for a criterion which can test either the meaning of an experience in which sensations occur, or the relations between sensations and those aspects of consciousness which are not sensation.

§ 9. INTUITION AS CRITERION

Sensation has one substantial fact in its favor; it is, as we saw, an immediate, undeniable experience. There can be no question about the factual character of an immediate experience; what is given, is given. It is immediately apprehended as being there; to doubt that I experience what I experience is a self-contradiction that renders all thought impossible.

But sensation is not the only immediate certainty. That I am self-conscious, that I take attitudes toward other selves, and that my mind thinks in terms of universals,—all this is just as immediately certain as is sense-perception. The Latin word for perception is *intuitio*; hence, all immediate perception is called intuition. Sensation is a kind of intuition, so that we often speak of sense-intuition, but, as we have seen, it is not the only kind. The term has been used with quite different meanings by different writers according to the kinds or aspects of intuition in which they were especially interested; in Spinoza and Bergson, for example, the specific meaning assigned to the term by the author must be

carefully watched.[1] Despite the differences in usage, however, it is safe to say that a common element is always present, namely, reference to what is immediately given in consciousness, immediately experienced or perceived.

Not every thinker that recognizes the philosophical importance of intuition would regard it as the criterion of truth. For some, an intuitive insight or experience is the goal of all thinking and living, but not the every-day test of truth. Yet intuition is regarded by many as the final criterion by which truth is to be distinguished from error. Not poets and lovers alone appeal to their intuitions as the last word; mathematicians, most rigorous of thinkers, make the same appeal. All demonstration in mathematics is usually said to rest back on certain principles known as axioms; the axioms cannot be proved, but are said to be self-evident.[2] Axioms afford a fixed starting-point for thought and render deductive science possible. Many have held that moral and religious axioms are also intuitively certain.

There are, then, reasons for believing that in intuition we have at length found the criterion for which we are searching. But here, also, we must be on our guard against error. Shall we, or shall we not, accept intuition as the test, or as an important test, of truth?

In answering this question, it is important first of all to make the distinction between intuition as an item of conscious experience and the reference of the intuition to reality. The sensation of redness may, as we have seen, be called an intuition. The distinction which has just been mentioned would, then, be between the redness as a state of

[1] Mrs. Stephens' book, *The Misuse of Mind,* is a clear and sympathetic account of Bergson's usage.

[2] Many mathematicians are extremely cautious about asserting the truth of axioms.

consciousness and the reference of this redness to an apple. If I have an intuition of redness, there can be no doubt of the fact that I have the intuition; but there may be doubt about whether the intuition is a perception of a real red apple.[1] The intuition may be a dream or hallucination and not what is called a veridical (that is, true) perception.

Further, it is very difficult to be sure just when we have a fundamental intuition. In a broad and loose sense, all consciousness is intuitive, for we perceive, apprehend, or intuit every conscious state or process. But it is customary to distinguish between truth or belief arrived at through reasoning, which is said to be mediate, and that reached by intuition, which is immediate. An ultimate or fundamental intuition, then, is one which is not to be deduced from any other proposition, but is seen to be true of itself and in its own right. Now we face the question: Is everything which is "seen" to be true in its own right really true? If all our non-deducible intuitions were as serviceable as the axioms of geometry, the prospect for finding much truth by intuition would be more alluring than it is. The trouble is that the woods are full of intuitions that are just as incapable of being deduced from anything else, and just as immediately certain to him who entertains them as any axiom of geometry. For many intuitions, people are put into hospitals for the insane; for others, they are acclaimed as poets or inventors; for others, are recorded as founders of religions. An intuition may be a flash of genius, a sudden insight into truth or beauty, a message from the divine; or it may be symptomatic of a decaying intellect or of mental incapacity. In other words, if you take an intuition by

[1] This statement only apparently contradicts that in § 8 regarding the percept of the apple. There may be doubt about whether we are really perceiving an apple; but if we really perceive, there is no doubt about the apple's being there.

itself, no matter how self-evident it may appear, there is no way of distinguishing a true intuition from a false one.

Criticism of intuition as a criterion of truth should not be misinterpreted to mean a denial that there are ultimate principles or axioms from which inferences may be drawn, but which themselves cannot be deduced from anything else. Assuredly there are such principles, as mathematics shows. The point of our present discussion is only that there is no way of telling the rightful heir from the pretender on the basis of pretensions alone; and that the claims of any intuition must be investigated in the light of the rest of our experience and thinking. Intuition, then, while not a test of truth, may well be a source of truth. The seer and the poet, the man of vision and insight, often give us truth that is priceless without being able to tell why their truth is true, or why it is superior to the error of some other seer. Every step of our investigation thus makes more apparent the need of a philosophical criterion of truth.

§ 10. CORRESPONDENCE AS CRITERION

In our discussion of the nature of truth at the beginning of this chapter, we noted that truth may be defined as correspondence with reality. If this be the nature of truth, some philosophers have said, what is simpler and better justified than to employ this definition as our criterion? An idea or judgment would then be true when it corresponds with the reality to which it refers. A map is true if it corresponds to the actual shape of the region that it represents; a poem committed to memory is true of the original if it corresponds, word for word, to the poem printed in the book.

Correct the correspondence notion may be as a definition of truth; it is futile as a criterion in most cases. How can I

compare my idea with the reality? Such comparison could occur only if my idea and the reality were both immediately certain and capable of being compared with each other. If the reality of things were accessible to me, in the same sense as are ideas, and knowledge of reality were thus immediately certain, in the same sense as are ideas, we should then already be in possession of a true knowledge of reality, and we could easily adjust our ideas to it. But if all that we have is our experience, it is impossible for us to compare ideas, which are part of experience, with any reality other than our experience. We cannot compare ideas with things. We can only compare ideas with other ideas or experiences. We cannot compare our idea of the State House in Boston with the State House itself. We can only compare the ideas we had about that building when we were elsewhere with the sensations and perceptions that we have when we are, as we believe, in its presence.

It is now evident why, at the outset of the previous paragraph, it was said that the correspondence theory is futile as a criterion in most cases; for, impossible as it is to compare ideas with reality, it is one of the simplest of processes to compare ideas with each other. It is what we are doing all the time. We might be tempted to say that correspondence of ideas with each other is the criterion of truth; but it is evident that what has been proposed as the correspondence theory is not true, and it is better to avoid terminology associated with an error. Hence, although perhaps near to what we seek, we shall look further.

§ 11. PRACTICAL CONSEQUENCES AS CRITERION

The inadequacy of the foregoing proposed criteria is widely recognized. Philosophy has made vigorous attempts

to discover a more excellent way. One of the most recent and influential of these attempts is pragmatism, certainly one of the most influential in the United States. It is a many-sided movement, not confined to any particular philosophical problem nor to the field of technical philosophy. No attempt will be made in this chapter to discuss pragmatism as a whole; nor is there room for more than a brief sketch of the pragmatic criterion of truth. Nevertheless, since it is a great contemporary movement, pragmatism will be treated more at length than most of the proposed criteria.

What, then, is pragmatism? Primarily it is a criterion of truth. Speaking broadly and ambiguously at first, we may say that it is the theory that the test of the truth of all thinking is to be found in its practical consequences. If the practical consequences are satisfactory, the thinking is said to be true. This statement is, however, far from clear. Just what is meant by practical and by satisfactory? What seems practical to the burglar seems impractical to the moralist; what is satisfactory to the organic chemist is probably unsatisfactory to the college freshman. There are, on the whole, among pragmatists four outstanding conceptions of the meaning of these terms, *practical* and *satisfactory*.[1] These may be called the humanistic, the experimental, the nominalistic, and the biological types. The types, to a degree, overlap. The same man may hold to more than one of them; but the classification will serve to bring preliminary order into a chaos of opinions.

The humanistic type is popularly best known. It holds that what satisfies human nature as a whole is true.[2] The

[1] Important material on the origins of pragmatism will be found in the *Jour. Phil.* for December 21, 1916, which is largely devoted to Mr. Charles S. Peirce. See also Peirce, *Chance, Love and Logic.*

[2] When special stress is laid on truth as the fulfillment of human purposes, this type may be called teleological.

name *humanism* comes from the English pragmatist, Schiller, a prolific and brilliant writer. Much of James's pragmatism was humanistic. The humanist would say, Whatever fulfills my purposes, satisfies my desires, develops my life, is true. This assertion readily lends itself to caricature; for it is notorious how many of our desires cannot be fulfilled; how many of them, when fulfilled, lead to error and evil, instead of to truth. But if emphasis be laid on life as a whole, the position becomes more plausible; and it makes a wide popular appeal in that it can easily be grasped, and lends itself to ready support of religious beliefs. Postponing all criticism to a later point, we shall proceed to define the other types.

The experimental[1] type of pragmatism is based on the laboratory methods of the sciences. It says, simply, Whatever can be experimentally verified is true; or, more simply still, What works is true. This conception of truth is employed by the sciences; moreover, if the term *experiment* be taken widely enough, this method would appear to have its application in every field. Can man fly in the air? What are the properties of radium? Is the Einstein theory true? Does God answer prayer? Is life worth living? Whatever our question, the reply would be one and the same, Try the necessary experiments and find out; *experientia docet.* There is no doubt that pragmatism in this form is voicing an important idea.

The type that we have called nominalistic may be regarded as a sub-form of the experimental type. Whenever we perform an experiment, we are looking for results. The experimental attitude is expectant, inquiring. Now, say many pragmatists, any idea is simply a prediction of certain expected, possible results. I say "red-apple-in-orchard," and

[1] See the discussion of experimental method in Chapter I.

mean that if I go to the orchard I shall see the red apple that I meant. These results are said by the nominalistic pragmatist always to be concrete particulars; nothing general, universal or abstract. A school of medieval philosophers held that *universalia sunt nomina*,[1] and hence were called nominalists. So too the pragmatist of this stripe (such as James) asserts that universals are mere names for the particulars to which they may lead. When I say "Man," I do not mean any such monstrosity as a universal man or man-in-general; I mean only that the traits asserted of "Man" will be found in the actual, concrete men with whom I deal. If the traits are not there, the idea is not true. This kind of pragmatism is closely affiliated with sense experience as a criterion, for the particulars that we meet are mostly sense data (including, as James emphasizes, their relations).

The last type, the biological, is in the ascendancy at the present time. By this type, of which the outstanding representative is John Dewey of Columbia University, the pragmatic test is found in the function of thought in adapting the human organism to its environment. Biology has taught us to regard man as a psycho-physical organism; thought is an instrument for adjustment in any situation where difficulties or problems have arisen. To adapt an illustration from the *Introduction to Reflective Thinking* by Columbia Associates in Philosophy,[2] we begin the day with habitual acts that require no thought (and so do not raise the issue of truth). But suppose we receive a letter in the morning mail containing a question that demands decision. We must then make up our mind what ought to be done; and this process is thinking. The truth of our thinking then

[1] "Universals are names." See Chapter V.

[2] The suggestion is on pp. 2-3. Cf. Dewey, *How We Think*.

would consist in the success with which it leads the organism to do that which will best answer the question. Because it regards thought as an instrument of adjustment, this view is often called instrumentalism. Because it was founded at the University of Chicago when Dewey was there, and because it is still growing at that university, it is often ascribed to the "Chicago School."

It is evident that so rich and fruitful a movement as pragmatism, with its influences not on philosophy alone, but on religious thinking, educational theory and practice, social and political theory, is worthy of careful study; it is also evident that there must be "something in it" for it to win the adherence of many conspicuous thinkers. Further, no philosophical idea of recent times has been so popular among the general public. It is said that James's *Pragmatism* was for some time the most widely circulated non-fiction book in the New York Public Library, and President Nicholas Murray Butler of Columbia has described it as the philosophy, "Which, when unfolded to the man in the street, causes him to howl with delight, because he at last understands things." (*Philosophy,* p. 24). Let us, then, consider what may be said for pragmatism as a test of truth.

First of all, it is clear that pragmatism is, in certain respects, morally wholesome. It is free from prejudice, concrete, sincere, unpretentious (when true to itself); and it thus creates an atmosphere in which it seems probable that truth might be found. As we have indicated, it is based on the laboratory method of science, which has led to most of such truth as humanity possesses. All types of pragmatism are open-minded, favorable to the freedom and plasticity of thought; conducive to growth in the apprehension of truth.

Further, it appears to be comprehensive,—to be a test that can apply to all sorts and conditions of truth. Indeed,

it is evident that, if the account of the philosophical spirit in Chapter I was correct, pragmatism performs an important and genuinely philosophical function. All of experience, and precisely the concrete, every-day facts that dreamy philosophers have been wont to ignore, must be taken into account. Philosophy must find a place for every human and experimental and particular and biological fact to which pragmatism calls attention. Results count; he reckons ill who leaves them out! As Galloway says, "That which works continuously for good must be in harmony with the nature of man and of the world in which he is placed." [1] Yet there are numerous difficulties in the way of accepting pragmatism, difficulties so serious as to lead many to reject the pragmatic theory.

Perhaps the chief objection to pragmatism is that it is vague and ambiguous in its meaning.[2] The four types of pragmatism,—humanistic, experimental, nominalistic, and biological—are in danger, not merely of overlapping, but even of contradicting each other. What is true from the humanistic standpoint (*e. g.*, immortality) may be false from the nominalistic; for at no particular time in this world or in the world to come could one's idea of endless life lead one up to the particulars which it denotes. What is experimentally true might be biologically useless for adjustment. Pragmatism's attempt to define the practical and the satisfactory has served to bring into stronger relief the ambiguity of those concepts. *Practical* is a relative term; anything that serves a given end (biological life, psychological repose, agreement with ideals) may be described as practical relative to that end. The question before the house is then,

[1] Galloway, *Philosophy of Religion*, p. 364.

[2] The ambiguity of pragmatism is emphasized by numerous critics, including Creighton, Royce, Lovejoy, and Fite.

What is the nature of the end that is served by true ideas? Pragmatism appears to lack a clear definition of that end.[1]

It is also evident that untrue ideas may lead to results which, in the long run, appear to be practical. Christian Science and Roman Catholicism, for example, are both systems of belief that have led to practical results; yet both cannot be true at the same time unless the universe is a madhouse. It helps us no whit to say that the results are due to the truth in each system; for, since each system is believed entire by its adherents, the results furnish no criterion of what parts of either or both systems may be true.[2]

It is equally evident that some true ideas are not pragmatically verifiable in the nominalistic or the biological sense. If there be such a fact as self-consciousness, my idea about your self-consciousness can never lead to the concrete fact that is your self-consciousness. It is also difficult to see how any biological adjustment of my organism to its environment can test a non-biological fact like self-consciousness. If the pragmatist urges that the humanistic and experimental types may take self-consciousness into account (as Schiller most emphatically does), the reply is that it is precisely these types that are most vague, ambiguous and confused in their meaning. Pragmatism may include the untrue or exclude the true. Human desires may be satisfied just as well to believe in fairies as to believe in self-consciousness. Or, to take Royce's different illustration, no reasonable mind can doubt that "the totality of the experience of many men really exists"; yet this fact would appear to be beyond the reach of pragmatic verification.

[1] For a pragmatic attempt to meet this charge, see A. W. Moore, "Some Lingering Misconceptions of Instrumentalism," *Jour. Phil.*, 17 (1920), 514-519.

[2] Royce's famous "Pragmatist's Oath" (*The Philosophy of Loyalty*, p. 331) pokes fun at the conception of the true as the practical or expedient.

The biological type is to-day the most popular of all forms of pragmatism in philosophical circles. Yet it is inadequate. A philosophical criterion of truth must not be narrow in its range or limited to one class of truth only. It must be inclusive of all types of experience, all objects of knowledge and belief. To pick out one of the special sciences as the source of the criterion of all truth is arbitrary procedure. If at one time biology is the fashionable science, at another it is physics, or mathematics, or psychology; but philosophy ought to be superior to the whims of fashion, and should allow no special science to usurp her rightful seat. Biology, as a special science, leaves many important facts out of account. It makes no attempt to prove or disprove the law of falling bodies, or the Pythagorean theorem, or the principles of democracy. A pragmatist like Moore, in the article mentioned above, aware of the limitations of biology as ordinarily understood, tells us that the appeal is to "a transfigured and glorified biology, loaded with all the conscious and social values which are denied it by those who find it such a bugbear" (p. 516). One might wonder whether biologists would recognize their child! If biology is equivalent to the study of all experience and all values, it doubtless contains, hidden somewhere, the criterion of truth. But is it not time to call a halt on the unlimited pretensions, not of the sciences, but of some men of science? There is a tendency on the part of sociologists to make sociology cover everything; the moralist makes ethics everything; the psychologist makes psychology everything,—and this is true of each subdivision of psychology,—normal, abnormal, social, and so on. The pretentious claims made for each special point of view lack the justification of the "strife of systems" in philosophy; for the former are based on a narrow outlook; while the latter arises from the difficulties of an inclusive

or synoptic standpoint. A biological pragmatism, then, is to be condemned for its narrowness; either it leaves out of account the points of view of other sciences, of universals, of values and ideals or else it approaches them from its single and restricted standpoint, which precludes a complete and adequate interpretation of their nature. The German Vaihinger,[1] who makes much of the biological functions of ideas, is more logical than the Anglo-American pragmatists. He points out the biological significance of our fundamental ideas, but is bold enough to assert that their biological utility is no proof of their truth; we must act and think, he holds, "as if" these ideas were true, knowing all the while that they are only "fictions." Thus biological pragmatism issues in skepticism and destroys itself as criterion of truth.

Pragmatism remains a very significant movement, and one worthy of thorough investigation; but it is neither clear nor self-consistent nor inclusive. It calls attention to important aspects of experience that should not be ignored, and thus contributes to philosophy; but it neglects important aspects, and thus refutes itself.

§ 12. COHERENCE AS CRITERION

There remains to be discussed the coherence criterion which, in one form or another, has been recognized and used throughout the history of human thought. If instinct, custom, tradition, the *consensus gentium*, and feeling are all untrustworthy; if sense experience and intuition must be tested by a higher criterion; if correspondence fails because we cannot compare ideals with "reality," but only with other ideas; if pragmatism fails because of its ambiguity in defining the end relative to which true ideas are practical,

[1] *Die Philosophie des Als-Ob,* translated as *The Philosophy of "As If."*

can the coherence criterion succeed where all others have failed?

Coherence means systematic consistency. The meaning of the term *consistency* is given with the very fact of intelligent consciousness. To be conscious means not merely to be aware of a particular content, but also to be aware of its relations. One of the clearest of relations is that of contradiction, as is evidenced by the decisive "no, no" of an infant in the early stages of speech-development. The logical law of contradiction asserts that a thing cannot both be and not be at the same time;[1] anything excludes the possibility of its contradictory being true at the same time. Different things may be as different as you please; the same thing at different times may be cold or hot; at the same time it may be cold to one person and hot to another,—and all this without the slightest contradiction. But the same spatial object cannot be both here and somewhere else at the same time; one act of one person cannot be both good and bad. Or if we attempt to say that the act is, "in a sense," good, and, "in a sense," bad, it is evident that there are two different senses involved, and hence there is no contradiction. Even clearer than the law of contradiction is the law of identity, which merely asserts that whatever you are talking about, you must mean that and not something else. Logically it is expressed in the form A is A. Whatever conforms to the laws of contradiction and identity, then, is said to be self-consistent, capable, as the Latin means, of standing together.

Wherever there is inconsistency there must be error. If you are talking about a Baltimore oriole, and suddenly call an English sparrow a Baltimore oriole, something is wrong;

[1] In logic this is expressed in the formula, A cannot be both B and not-B.

and it is wrong because one use of terms destroys the other. Real inconsistency may be called the suicide of conscious life; it annihilates itself. If I say, "John is a man; but John is not a man," either I am using the term man biologically in the first place and morally in the second; or else the latter part of my statement destroys the meaning of the first, so that I really say nothing at all. Not all inconsistency is so glaring as that of the simple illustrations just given. In the thinking of every human being there are doubtless inconsistencies, essentially just as absurd as those, yet not so clearly present to the mind as they.

It is often said that the law of consistency is merely formal and barren. In a technical sense it doubtless is formal, but it is permitted to doubt whether it is barren. If any human being could eliminate all the inconsistencies from his thinking he would have moved far away from the errors to which the race of men is subject; perhaps he would have found Truth! It remains true, however, that the law of consistency, as stated, is formal. It tells us in general that all things must stand together; it does not tell us specifically how, or where, or why they are to stand. The truth must be self-consistent; every one will grant this. Yet not every self-consistent proposition is true. How, then, are we to sift the wheat from the chaff? Further definition is necessary before this question may be answered.

Several conceptions of consistency are possible, of which we shall mention the most important. Consistency might mean a series of facts, each as unique and individual and unrelated to others as you please as long as they do not contradict each other. Such consistency might be a welter of confusion, a chaos without rime or reason. If this were all that consistency meant, it would not be a useful criterion of truth; for, if there is any truth, it is surely not to be

found in a jumble of facts whose only merit is that they do not destroy each other.

Or it might mean the sort of deductive consistency that is contemplated by the method of rationalism. This has already been criticized.[1] Experience abounds in concrete empirical facts that cannot, so far as we see, be deduced from anything else; and if only that were to be accepted as true which is capable of being deduced from some ultimate principle, we should be in the embarrassing position of having to deny truth to the great majority of concrete facts; not to sense qualities alone, but also to most other psychological facts. Our criterion of truth should not be in the absurd position of failing to interpret the facts of experience.

Consistency might mean the organization of those concrete facts, which the deductive interpretation ignored. This might be called empirical consistency, and would result from the application of what, in Chapter I, was called the scientific method. As we saw in the previous discussion, this method is in great danger of leaving many facts out of account and of ignoring important aspects of the deductive structure of experience.

Consistency may finally be interpreted as coherence, in accordance with the synoptic method. By coherence is meant, literally, "sticking together." The coherence criterion looks beyond the mere self-consistency of propositions to a comprehensive, synoptic view of all experience. It takes into account all our judgments, as a connected, "sticking-together" whole. The coherence theory would then offer the following criterion: Any judgment is true, if it is both self-consistent and coherently connected with our system of judgments as a whole. Thus the working test of truth is

[1] In Chapter I.

our maximum coherent system of judgments; by "maximum" is meant including in the most coherent way the whole range of our judgments about experience. Yet this "working test" is not static, for the system needs revisions in the interests of improved coherence, and new experiences of fact, which are constantly pouring in on us, whether we like it or not. Some principles (such as that of coherence itself) are of course more fundamental than others in the system: and there is no reason to assume that any particular item of present "truth" is false unless grounds can be shown for regarding it as somehow inconsistent with the system of truth, or something else as more adequately coherent. We are right in accepting any judgment as the best truth, *i. e.*, the best account of reality as it is, that we can get, if it is not contradicted by any judgment in the system we accept as true, and we are able to find connections between it and the rest of truth:—the more connections, the better. It often happens, however, that an entire system of old truth has to be revised in the interests of new fact; the view of the world as flat had to be given up and thought adjusted to the idea of a round world as soon as people became convinced that one could sail around the world.

The criterion of truth as systematic coherence has been consciously or unconsciously employed by many of the greatest thinkers from Plato to the present time. Hegel gave it classical form and made it the basis of his system of absolute idealism. We are not, however, now concerned with its metaphysical implications, but only with its function as a test of truth. As such a test, the theory appears impregnable. On what other grounds than coherence or incoherence are we justified in accepting or rejecting a given belief? If a belief contradicts another belief, of course there is error somewhere, and we locate the error in the belief

that fails to connect with the system that most coherently interprets experience. If it be asserted that the world was created in 4004 B. C., and it also be asserted that the Heidelberg man dates from 100,000 B. C., no acute intelligence is required to detect the presence of incoherence and error. Where the error will be located depends on the system which is of maximum coherence.

Now all this seems so elementary, so obvious, that the reader may wonder why the point is labored so insistently. Well, fundamental thinking will never be done if you are to accept as true whatever appears to be obvious; it is obvious that the earth stands still while the sun goes around it,—obvious, but not true. In the present instance there are additional reasons for caution. We are dealing with the instrument that will be used in all our later thinking; and it happens that one of the most characteristic traits of recent philosophy is a challenging of the coherence theory. Intellect is inferior to intuition, says Bergson; coherence gives us a block universe that ignores the variety of concrete life, says pragmatism; coherence is contradictory to the true scientific and philosophical method of analysis, says neo-realism; coherence is associated with absolute idealism, which on many grounds is to be rejected, says a chorus of numerous schools of thought. We shall therefore consider some of the objections most frequently voiced, and shall inquire what the theory has to say on its own behalf.

(1) Objections to the Coherence Theory. It is said that the use of this criterion will lead only to relative truth. Any system we can formulate admittedly needs revision; contradictions emerge, new facts clamor for admission; truth never reaches the stage of completeness and finality in human thinking. There is a never-ending quest with an ever-widening horizon. Where, then, is the place of the real

truth in such a system? Only in the completed attainment of the ideal of an all-inclusive system; that is, only in the Absolute. The Absolute is Truth; "our little systems have their day" and cease, because they are not adequately true. It is even held that the coherence theory leads to skepticism; for the best that we now possess will have to be so utterly revised in the light of the Absolute that our present truth is but error, our present good, but evil. Thus does our cherished criterion turn to dust and ashes in our hands.

This objection is serious, but it is not unanswerable. It is manifestly true, whatever our criterion may be, that we know in part. No criterion can avoid this common fate of humankind; the pragmatic least of all, whose new truths arrive with every breath we draw. Our apprehension of truth is growing; but it does not follow from this that the present stage of knowledge is worthless and untrue. The view of a distant star through a telescope does not mean that the view with the naked eye is not really a view of that star. It is simply a less adequate, less coherent view. Further, it may be pointed out that, even in our present vision of truth, there are elements which are absolute in the sense that they cannot be thought as untrue without self-contradiction. Such are the immediate data of experience, self-consciousness, and the validity of the laws of formal logic, and perhaps other principles.

It is said that ideas may be consistent and yet be untrue. There is no contradiction with itself or with anything else in asserting that a five-legged philosopher exists in the fourth dimension. Yet very probably there is no such entity in the real universe. Such an objection, however, fails to do justice to the difference between mere consistency and coherence (or systematic consistency). The idea in question may be self-consistent enough, but it is not coherent with the rest

of our thinking. It is not related to the facts. There is, as we say, no "evidence" for the existence of such a creature,— there is none but the loosest connection between it and the system of our experience as a whole. Hence this objection is far from refuting coherence; for the only possible way of judging any consistent idea or system to be untrue is by a more careful application of the principle of coherence.

The neo-realists hold that coherence makes all truth interdependent and organically related; whereas there are, they say, many truths which are true independently and in their own right, whether anything else is true or not. A straight line is the shortest distance between two points, whether grass is green or not. This argument cannot be fully discussed here; but at least this may be said: if the neo-realistic position be true, to any degree, the neo-realist is justified in making his assertion only after taking all judgments into account, finding that no true judgments contradict his view, and tracing all the connections he can discover among the propositions that he regards as true. In other words, he really differs not with coherence as criterion, but with the use made of coherence by some philosophers.

(2) Reasons for Accepting the Coherence Criterion. The chief reasons for accepting the coherence criterion as valid may be stated briefly.

It cannot be denied without being affirmed. If I say, coherence is not the test of truth, I must appeal either to contradiction and incoherence or to some form of coherence. And even if I appeal to the realm of contradiction and incoherence, if I mean what I say and stick to it, I am again appealing to coherence. If I do not mean what I say, it is time to stop talking.

It is the very essence of coherence to take all aspects of life, all experiences, all points of view, into account before

coming to its synoptic conclusion. The other suggested criteria we found to suffer from the defect of incompleteness at one point or another; coherence recognizes the truth, but avoids the defects in each of the other theories. As Hegel viewed it, speculative thought should be a synthesis that somehow interprets and reconciles every thesis and antithesis.

It is the appeal to coherence alone that solves the riddles raised by the criticism of the other criteria. How may I be sure that my experience is sense perception and not hallucination? On what grounds does my conviction of intuitive certainty rest? What is the end that truly practical ideas must serve? A little reflection will show that coherence is the only satisfactory answer to all these questions.

Its meaning is intelligible, and it is actually employed by every one, in so far as he thinks seriously. We are never sure that any object is real or any thought true until we see it married to the ideal of coherence. Hence, our love for law in science; hence, our hesitancy to accept many pretended facts, such as communications from departed spirits.

We have reached the end of our study of criteria of truth. We have found no royal road to truth. If we are right in regarding coherence as the only valid test of truth, we are not justified in resting from our intellectual labors, having attained the goal, for a criterion of truth is something to be used in the toils and battles of the mind, testing all our thoughts and itself being constantly tested anew by the very use that is made of it. It is no simple matter to grasp our view of things as a whole, and to test every part by the whole and the whole by its adequate coherence. But he who demands that philosophy shall be simple cannot regard philosophy as an interpretation of life; for life is not simple.

CHAPTER III

HOW DO OUR IDEAS REFER TO REALITY?

§ I. THE PROBLEM OF EPISTEMOLOGY

Let us suppose that the result of Chapter II is correct. Then coherence is the test of truth. The more completely coherent our interpretation of experience is, the more nearly it approaches the precise truth. But there are puzzling questions that rise from this conclusion. One set of these questions leads to what is known as the problem of knowledge.

If I have been able to reach a coherent account of things, I feel justified in saying that I now know the truth about reality. I have knowledge in my grasp. But knowledge is an act of my mind; and that which I know is other than my knowledge of it. The North Pole, or relativity, or tomorrow, is not the same fact as my thought about it. Here, then, is a puzzle: How may I be certain that my ideas, even when they meet the requirements of the coherence (or any other) criterion, actually give me truth about the state of affairs in the real universe beyond me? The universe is so large, and I so insignificant, that it seems improbable that I should know reality as it is.

In our criticisms of the various proposed criteria of truth, we found a crucial point when we came to the correspondence theory. In examining it, we held that our ideas cannot be compared with reality; for, whenever we know, or believe

that we know, reality, it is always by means of our ideas. This reading of the knowledge situation has been vigorously questioned in recent times, but it is sufficiently disturbing to serve the purpose of a starting-point for us, as for most modern philosophy since Descartes. Here, then, is the problem: If my idea and the reality which I know be incapable of being directly compared, how do we know that there is any reality beyond our immediate ideas? Or, supposing that there is a real universe, how can we know anything about it?

There is a disposition in some quarters to make light of this problem. For plain common sense, there seems to be no problem. Ask the average man how he knows that he knows; he would probably reply, I know,—and there's an end on't! Many sophisticated minds would agree with him. They would point to the actual work of the sciences, which know a great deal without troubling themselves about the possibility of knowledge; or to the familiar fact that digestion goes on just as well, or even better, without preliminary inquiry into how it can take place. The philosopher, however, is under an obligation that neither the man on the street nor the man in the laboratory has assumed; namely, the obligation to try to understand experience as a whole. Since the claim of ideas to give us knowledge of something beyond themselves is one of the most fundamental traits of experience, the philosopher cannot avoid the responsibility of inquiring into the nature and significance of the knowing process.

In order to make clearer the question that we are to consider, let us state it in other forms. The criterion of truth, let us grant, has shown us something about the internal necessities of thought; is there any reason for believing that as I think so reality is? Why suppose that the structure of

our thought, in a concrete system like the science of astronomy, is a correct account of the structure of the world? Can I find within my experience something that may be trusted to reveal reality and to relate me to the eternal meaning of the universe (if it have such a meaning)? Certain it is that if any clew to things as they are is to be found by a human being, that clew must be in human experience; for our experience[1] is all that we have. Now such problems are studied by that part of philosophy that Ferrier first called epistemology, or theory of knowledge. We shall now discuss some of the important answers to the epistemological problem.

§ 2. SKEPTICISM

The first answer that may be given is skepticism. Facing the contradictions among the best of the human race, the changes in so-called knowledge, and the enigmatic mystery of life, many men have thrown up their hands in despair, crying, "Nothing can be known." This position is historically known as skepticism.

Skepticism assumes many different historical forms. The student is referred to the various manuals of the History of Philosophy for detailed information about particular thinkers and movements. It is our business to consider whether skepticism is valid; for if it is, it would be better to know the one truth that no truth is attainable than to deceive ourselves into believing many "truths" that are not true.

In approaching any philosophical problem, the best method is to follow the example of Socrates and try to define

[1] The term *experience* is used, in its widest sense, of our entire conscious life: all our perceptions, memory, knowledge, belief, hope, reasoning, etc.

your terms. It often happens that explicit definition is the best proof of a truth or refutation of an error. Indeed, some think that the process of truth-finding is wholly a matter of defining what you mean.

The assertion that nothing can be known may mean just what it says; nothing whatever can be known about any subject. In this form, skepticism is clearly self-refuting, for if nothing can be known, skepticism cannot be known. Further, another person may, if he feels like it, set up the opposite assertion, something can be known; and the utter skeptic has no way of disproving it, for any arguments on his part would be a confession that something was known on which an argument could be based. The thorough-going denial of all knowledge is a dogma that destroys itself. As a wild mood of despair, it is comprehensible; but as a reasonable view, it cannot even be formulated.

All forms of skepticism that are not self-contradictory have to grant that there is some knowledge. The knowledge that they grant, and must grant, is about the immediate data of experience. Sensations we know; anything more than this, says the skeptic, is of the Evil One. Skepticism of this type has had a long and flourishing history, from Timon of Phlius to David Hume and Auguste Comte, and down to the present time. Comte has given to it the name of positivism. This term suggests at once that knowledge of the sense order is positive knowledge; and also that no other knowledge is positive. It asserts knowledge of the world of sense experience and ignorance of the nature of the reality that manifests itself in that experience. What, then, shall we say of this kind of skepticism?

Taken with full seriousness, positivistic skepticism is exposed to the peculiar fate of the solipsist. The solipsist holds that nothing exists save himself and his ideas; if he

seems to find things and persons outside himself, they are all really within him; responses of other human beings to his questions, tempest, and death are all alike creatures of his dream. Now, no one in his senses ever meant to believe solipsism. It is impossible to hold consistently to the view that there is nothing except one's sensation. Further, all the arguments of Chapter II against the use of sensation as a criterion of truth may be cited in evidence here. Hence the positivistic skeptic must grant that when we talk about things and other persons than ourselves, we are talking about something other than our own sense perceptions. He must either admit or deny that he knows something about those objects. It seems peculiarly self-contradictory for positivistic skeptics to write books addressed to the intelligence of other minds, minds which are denied existence, if their own logic is sound! If, then, this sort of skeptic is to avoid solipsism and utter incoherence, he must admit that other minds exist and that he knows something about them.

There is no way of escaping the conclusion that any mind, if it is not to commit the intellectual suicide of uttering a series of nonsensical contradictions, must believe that some knowledge beyond the immediate data of sense is attainable; some knowledge of persons and things of yesterday and of last year, and of the trustworthiness of reason.

In short, there appears to be no valid argument to prove that knowledge is impossible; on the contrary, all genuine thinking necessarily involves the belief that knowledge is attainable. This conclusion should not, however, lead the reader to consider skepticism stupid or unimportant. He who has never been overwhelmed with the unutterable vastness of the universe and the profound mystery of existence, will be able to look on the skeptic with cool indifference or with bigoted disdain; but he who has once felt the sting of

the problems of life will be able to appreciate the skeptic's contribution to philosophy.

The skeptic should teach us to distrust uncriticized or dogmatic assumptions; to learn that thinking, to be trustworthy, must be fundamental; to make no pretentious claims to knowledge, where we have no knowledge. It should lead us to value the proper function of the doubt [1] which leads us to examine and question all our beliefs with a view to a conception of the truth that will stand investigation. It warns us against that perverse and obstinate doubt, which doubts for no reason, contradicts itself from moment to moment, yet persists in defiance of reason out of sheer unwillingness to think honestly. It points out the fact that there is much that we do not know (in which sense every sane person is an agnostic); that there is uncertainty in much pretended knowledge; and that final proof is accessible only to him who knows Absolute Truth. In many matters, probability is, as Carneades held, the guide of life.

Skepticism, then, is a wholesome introduction to the problems of epistemology; but for the living mind it cannot be the conclusion of all things. Current philosophy, some one has said, is "gnostic." Knowledge forces its way into the citadel of doubt; and we must seek some other account of the facts than skepticism gives us.

§ 3. "KANTIAN" SUBJECTIVISM

A second possible answer to the epistemological problem (although not historically second) is the answer given by Kantian subjectivism, or, to be more precise, one given by a view frequently understood to be Kant's, but actually rep-

[1] See Royce, *The Spirit of Modern Philosophy*, pp. 71-74.

resenting only one of several currents in his thinking.[1] This view starts from the fact that we have made our starting-point in this chapter,—namely, that only consciousness is immediately given. All the objects that we know are objects of real or possible experience. Now, a chair or table as we experience it must conform to the laws of our mind, for nothing could be experienced by a mind if it did not conform to the laws by which a mind can have experience. As we have seen, a mind cannot regard anything as true which is not self-consistent. Kant showed further that the mind treats as real only that system of objects which obeys the laws of the "forms of sensibility" (space and time) and the "categories of the understanding" (substance, causality, *etc.*). Hence, Kant argues, scientific knowledge is possible, and skepticism is refuted, for the laws of space, time, and causality must necessarily be true of every object that the mind recognizes as real. Kant holds that the "content" of knowledge comes from sensation, but insists that its "form" (the universal, or law-element) comes from the understanding. "Der Verstand ist selbst der Quell der Gesetze der Natur,"[2] and "Gedanken ohne Inhalt sind leer, Anschauungen ohne Begriffe sind blind,"[3] are statements which should be taken in connection in order to understand Kant's point. Sense intuition gives the data, but the understanding organizes the data, gives them form and law, and thus makes knowledge possible.

[1] For the student who desires to study Kant, M. W. Calkins's treatment in *The Persistent Problems of Philosophy,* pp. 195-273 is a good introduction. A more elaborate treatment is found in Norman Kemp Smith, *A Commentary to Kant's Critique of Pure Reason.*

[2] "The understanding is itself the source of the laws of nature." *Kritik der reinen Vernunft,* 1st ed., p. 127.

[3] Literally, "Thoughts without content are empty; intuitions without concepts are blind." More freely, "Form without content is empty; content without form is blind." *Kritik der reinen Vernunft,* p. 75, 2nd ed.

Knowledge, then, is possible; but knowledge of what? [1] Knowledge only of phenomena, of things as they appear to us, in our minds, with laws that come from our minds rather than from the things! Things-in-themselves (*Dinge an sich*) we can never know; they are forever inaccessible to us. The knowability of things as they appear has as its reverse side the unknowability of things as they are. This doctrine may be called subjectivism, for it holds that we know only the content of experience and its laws; or phenomenalism, for it holds knowledge to be confined to phenomena,—things as they appear to us. As far as things-in-themselves are concerned, this theory of knowledge surrenders to skepticism, and, in the end, this second answer makes little advance over the first.

§ 4. EPISTEMOLOGICAL MONISM

A third answer was suggested historically by the view just described as Kantian subjectivism (although it had been held previously, as by Berkeley). If only actual and possible experience can be known, and things-in-themselves are unknowable, what reason is there, the post-Kantian idealists asked, for preserving the otiose *Dinge an sich* in the museum of philosophical monstrosities? If experience alone be knowable and real, and nothing that is not in experience, at some conceivable time, could ever be mentioned or imagined, we have the following solution of the epistemological prob-

[1] It is important for the student to bear in mind that the brief exposition and criticism in the text do not pretend to do justice to Kant, whose many-sided intellect is one of the greatest in human history. It is a cheap and easy sport in these days to refute Kant with a gesture. The view described in the text as Kantian subjectivism has, however, been widely regarded as the essence of Kant's thought. While the popular view misrepresents Kant, it is desirable for the beginner in philosophy to learn what is meant when Kantian subjectivism is referred to.

lem: Knowledge is possible, because it is essentially immediate; the idea (experience) and the object (that is experienced) are one and the same fact. This view is called epistemological monism, for it holds that idea and object are one. When I see a table, says epistemological monism, there are not two facts, my seeing of the table and the table itself; but there is one fact only. The actual table enters into, is a part of, my experience. If there were a table-in-itself that did not enter my experience it would be utterly different from what I actually experience as table; it would be unknown and meaningless; in short, there is no such thing.

One of the noteworthy traits of the history of the human spirit is the fact that while "enterprises of great pith and moment" are sometimes "sicklied o'er with the pale cast of thought" so that "their currents turn awry," it is also true, on Shakespearean authority, that "there is nothing either good or bad, but thinking makes it so." It has often happened that an abstract scientific or philosophical conception has exercised powerful unforeseen effects. Epistemological monism is an idea heavy with far-reaching consequences. On it, great minds have based their whole view of the universe,—of the "flower in the crannied wall," and God, and man. The theory is not, then, a mere curiosity of thought.

A critical inspection of epistemological monism reveals the fact that it is capable of more than one interpretation. One may well ask, with Professor Lovejoy, "If 'idea' and 'object' are not two but one, which is the one?" [1] It is quite possible to answer the question either in favor of the idea or in favor of the object; that is, the table may be idea only, or it may be object only. The view that holds that idea and object are one, and that they are idea is called episte-

[1] A. O. Lovejoy, "Reflections of a Temporalist on the New Realism," *Jour. Phil.,* 8 (1911), 590.

mological idealism; the other view, that they are object, lacks a good name, partly because it is so young a member of the philosophical household that its parents have not gotten around to naming the child. Professor Perry has proposed *panobjectivism.* The word has the merit of suggesting its own meaning (all is object), however much etymologists may writhe; and we shall adopt it. We have, then, the idealist and the panobjectivist types of epistemological monism before us for consideration.

(1) Epistemological Idealism. If idea and object are one, it seems more obviously logical to say that they are idea. Our ideas are immediately with us, in our minds; nothing exceeds the certainty which arises from their immediately given character. It is clear what is meant when one says that objects are present to conscious experience, and that there is nothing to the objects except their presence in some conscious experience. Thus Berkeley reasoned, when he held that *esse* is *percipi;* the being of material objects lies in their being perceived by finite spirits because the Divine Spirit wills it. Thus also Hegel reasoned, when he held that in the *Idee,* the Absolute Idea, subjective and objective are one.

Epistemological idealism sounds at first suspiciously like solipsism; but neither Berkeley nor Hegel,[1] nor any other representative of the view, ever had the notion that his ideas were all the ideas there were. Indeed, both of them, Berkeley more or less unconsciously, Hegel with explicit consciousness, used the coherence criterion of truth. The ideas that I experience, they reasoned, do not admit of coherent organ-

[1] The grouping of Berkeley and Hegel in the text is not intended to imply that there is close resemblance between the systems of those two philosophers. Although both idealists, they are in many respects divergent. At the points mentioned in the text there is, however, more resemblance than has been generally recognized.

ization without my supposing that there is a system of ideas in a supreme mind, in which, somehow, I participate. Criticism of this view will be postponed to a later point in the chapter.

(2) Epistemological Panobjectivism. There are numerous thinkers in recent times who are willing to adopt epistemological monism, but are dissatisfied with the use that Berkeley and Hegel made of it. Panobjectivists say, Idea and object are truly one, but they are the object. What is consciousness but a gleam that shines for a while when certain objects in the environment and the nervous system are related in a certain way? Is it not arbitrary to regard all objects as modes of consciousness? Is it not scientific and reasonable to regard consciousness as a mode of objects? This point of view is maintained in contemporary philosophy by certain pragmatists and neo-realists. The pragmatists, such as Dewey, hold to monistic principles with less consistency; [1] the neo-realists, like Perry, maintain the doctrine with much more rigor. The process of pragmatic verification is seen, in the light of monism, to be most literally a leading-up to the object itself, and the process of realistic analysis [2] is, if epistemological monism be true, a veritable analysis of the object.

Thus we see that the same epistemological theory is used in one form by idealists to exalt the place of mind in the universe and to glorify God; while in another form it is used by panobjectivists to explain mind in terms of objects that have no mind, and hence either to destroy or utterly to transform the idea of God. The same fountain, contrary to Holy Writ, sends forth from the same opening sweet water and bitter!

[1] See A. O. Lovejoy's essay, "Pragmatism *versus* the Pragmatist," in *Essays in Critical Realism,* pp. 35-81.

[2] See the discussion of method in Chapter I.

§ 5. EPISTEMOLOGICAL DUALISM

A fourth possible answer to the problem is what is called epistemological dualism. This is the theory that holds that every case of knowledge includes two elements, idea and object, neither of which is identified with or can be reduced to the other. Whenever I have an idea, it is an idea about something. The "something" which my idea is "about" is called the object. The object may be physical, or mental, mathematical, or logical,—it may be anything of whatever kind. The idea may perhaps resemble the object, as my idea of what you are thinking may resemble[1] your actual thoughts; or it may be different from the object, for my idea of a million miles is certainly not a million miles long. All that epistemological dualism asserts about the object is that it is not identical with the idea of it; and all that it asserts about the idea is that it refers to, or describes, or (simply) knows, the object.

The dualistic account of knowledge is, for the ordinary mind, the simplest and most natural. If I say that two plus two are four, I certainly do not mean that my momentary idea of this truth is the mathematical truth itself. My ideas come and go; truth abides; hence my idea must be numerically distinct from the object. Further, this view is the oldest and most persistent of epistemologies. It is usually said that the ancient Greeks never raised the epistemological question. If this be true, which is doubtful, it is because most Greek philosophers never thought of doubting the dualism of thought and its object.[2]

Modern philosophy was predominantly dualistic in its

[1] The assertion that true ideas always resemble their objects is called "the copy theory" of knowledge, but it is so manifestly inadequate as to require no further discussion.

[2] Parmenides, who identified thought and being, is an exception.

epistemological theory for a long period. Descartes, the rationalist, and Locke, the empiricist, were equally epistemological dualists. It is true that these men and many of their successors drew from their epistemology illegitimate inferences about the nature of the object; but epistemological dualism should not be confused with any theory about the object. Such a theory belongs to "ontology" (theory of being) rather than to epistemology. The rise of epistemological monism in Berkeley and in Hegel was due, in part, to their dissatisfaction with the dominant dualism. Kant's thought is a curious instance of the power of dualistic thinking. What we have called Kantian subjectivism is probably to be interpreted as epistemologically monistic for phenomena, but dualistic for things-in-themselves. The black carbon compound called coal may be an object of immediate experience for Kant; but about coal-in-itself, Kant was as uncritically dualistic as the most naïve coal-heaver. Of course there is the real thing, coal, which is other than my idea of it, Kant would say; so wholly other that it can never be known. While, then, Kant accepted epistemological dualism and used the unknown things-in-themselves to explain the rise of sensations in the mind, it is evident from his theory of phenomena and possible experience that he did not look to his dualism for his explanation of knowledge.

Despite Kant and Hegel, the problem will not down. In current philosophy, we find pragmatists, many new realists, and absolute idealists in an uncomfortable monistic alliance; while the presuppositions of the sciences, and the views of the critical realists, of some pragmatists and new realists (especially in England), and of most personalists are dualistic. It is evident that we are facing a fundamental philosophical difficulty.

§ 6. DIFFICULTIES IN EPISTEMOLOGICAL DUALISM

Since monism has arisen as a protest against dualism, the problem may be presented by discussing the monistic objections to dualism. The monists have had a keen eye for difficulties in the traditional view.

Dualism, it is often urged, is not a solution of the problem of knowledge, but is only a statement of the problem. Here, on the one side is thought; there, on the other, is the object. Between them there is a great gulf fixed. A mere statement of this fact does not afford any understanding of knowledge, we are told, but is merely a first formulation of what appears to uncritical thought to be the situation.

All, then, are agreed that the dualistic relation of idea and object is what appears to be an obvious description of at least some cases of knowledge. Whether it is, as dualism holds, a relation that cannot be further analyzed, or whether it is capable of reduction to an ultimate monism is a question that is to be settled on the basis of other considerations.

Pressing the difficulties of the dualistic divorce of idea and object, the monist argues that dualism not merely fails to explain knowledge, but even makes it impossible. If the gulf between idea and object cannot be bridged, then the idea can never reach the object; and the result of dualism is skepticism. Did not Kant say that knowledge of those *Dinge an sich* off yonder outside of experience is impossible?

The dualist is, however, bold enough to assert that this situation, in which monists scent skepticism, is just what knowledge is. To the charge of skepticism, he would reply that, unless knowledge of objects that can never be one with the idea that knows them is possible, then real knowledge

and articulate experience itself are alike impossible. It is, for instance, obviously impossible for my idea ever to coincide monistically with a past event; yet, if science is possible, and if psychological apperception has any meaning, it must be granted that we can know what is past. We can then really have a true idea about what can never be identical with the idea; I can truly know that yesterday I went to the dentist, although my knowledge is to-day and the visit yesterday is in the irrevocable past. The pragmatist would say that, while I cannot literally re-create past time, I can know about the past through present and future experiences that are monistically immediate. I know that I went to the dentist, because there are two new crowns in my upper jaw, because I shall probably receive a bill, and because the dentist will ask me whether his work was satisfactory. But to the dualist, such assertions appear to be mere evasions of the fact that my crowns, the dentist's bill, and his query will all refer to something past, which is the object meant; namely, my visit of yesterday. Knowledge does, as a matter of fact, bridge the gulf between idea and object in thought without the possibility of the idea's ever being one with the object. All articulate experience rests on such references and relations between present and past and future. Without a duality of thought and object, knowledge could not be. The charge that this involves skepticism rests on a misapprehension of the nature of knowledge.

Coming to the attack from a somewhat different angle, the monist argues that dualism is objectionable because it is based on an appeal to the untrustworthy criterion of instinct. Many dualists have been unfortunate enough to make this appeal and thus to expose themselves to criticism. The belief that there are objects other than the ideas is, they have said, incapable of being proved; but it

is an instinctive belief of every sound human mind. Now the argument from instinct is, as we saw in Chapter II, no argument at all; nor is the case bettered if the instinctive belief is justified on pragmatic grounds.[1] The pragmatic appeal is also logically defective. Hence, in so far as dualism is based on "instinct," it is unproved. An instinctive belief, the dualist must admit, is not necessarily true; but he would ask, Is it necessarily false? The answer is that it is merely a candidate for critical examination. This argument, then, proves nothing either way. The question still at issue is: Which hypothesis gives the more reasonable, more inclusive, more coherent, account of all the facts?

The analytic panobjectivist bases his objection to dualism in part on the assertion that the method of science presupposes epistemological monism; for science is concerned with analysis of the given. The data of science—rocks, metals, motions, distances, insects,—are objects of immediate sense experience. Granting this account of science (although it is actually too narrow), the dualist might admit that the starting-point of science appears to be monistic; but if he followed the analyses of science to the end, he would find his dualism reinstated. Scientific analysis leads to mathematical points and instants, to and beyond the atom to electrons and perhaps beyond them. These elements revealed by analysis are not given in the immediate experience of the object; if they are real at all, they are objects other than our experience of them. Thus the result of science is dualistic. Furthermore, the asserted monism of its starting-point exists only in the mind of epistemological theorists; the sciences, as concretely existing, assume a dualism of idea and object,[2] and the extremes of subjective ideal-

[1] As is done by Professor Drake, *Essays in Critical Realism,* p. 5.

[2] See E. W. Hobson, *The Domain of Natural Science*, Chap. II, esp. p. 25.

ism and of panobjectivism are equally foreign to the thought of science. The fact that science presupposes epistemological dualism does, however, not prove dualism to be true; for it is a function of philosophy to criticize the presuppositions of the sciences. Science cannot be exploited by or for any special epistemological theory.

The monist has not yet exhausted his supply of logical ammunition. He may be willing to admit that there is the appearance of a dualism in many cases of knowledge; indeed, he must admit it: but he can still argue that these cases of apparent dualism are all in the end to be explained by reference to some situation in which idea and object are one. That there are such situations, he contends, is indubitable. My knowledge of yesterday's visit to the dentist, he would point out, was once an immediate experience; if it had not been, I could not truly know it.

We must, then, confront the question: Are there indubitable cases of immediate knowledge? We may be helped to answer this question if we examine the distinction between *knowledge by acquaintance* and *knowledge about* or knowledge by *description*.[1] *Acquaintance with* an object is the kind of knowledge we have when the object is immediately present "to" or "before" the mind; knowledge about the object, or knowledge by description, is what arises from inference, reasoning and explanation. Acquaintance cannot be imparted to another mind; if I am acquainted with the color yellow, I may "describe" the circumstances under which any one may have an acquaintance with yellow, but I

[1] The distinction between "knowledge of acquaintance" and "knowledge about" was made by John Grote in the *Exploratio Philosophica,* Part I (1865), pp. 60 ff., Part II (1900), pp. 201 ff. It was taken up by James in his *Psychology,* Vol. I, pp. 221 f., by B. Russell, who introduced the term "knowledge by description" for "knowledge about" in *The Problems of Philosophy,* Chapter V; by W. R. Sorley, *Moral Values and the Idea of God,* 2nd ed., pp. 194 f., and by others.

cannot describe yellow. The only reason that any one understands the word yellow is that he has, or has had, an acquaintance with something yellow. Acquaintance, then, is direct or immediate or intuitive knowledge; description is indirect or mediate or inferential. My own present consciousness I am acquainted with; an atom, or the past, or a mere instant of time, I can only know about or describe.

Now, the epistemological monist makes his appeal to knowledge by acquaintance (or perception, as Professor Marvin [1] calls it). There must be something with which we are acquainted, he argues; all inference starts from immediate experience; all thinking is, in the last analysis, about something that we have directly perceived. What we thus directly perceive is the solid foundation of knowledge. Acquaintance is the basis of all description. What I know by acquaintance is so true that no other knowledge could add to its certainty, and no reasoning could shake it from its place in the realm of truth. Such knowledge is knowledge indeed; and such knowledge the epistemological monist believes to exist and to prove his position. For when knowledge is direct perception without the mediation of reasoning or inference, there is (he holds) no duality of idea and object, no gulf for knowledge to cross. The object is present; and knowledge by acquaintance merely apprehends this fact. If the monist is right in this account of immediate knowledge, and if (as most would agree) knowledge by description is merely an interpretation of knowledge by acquaintance, it would appear that the case for epistemological monism is stronger than the arguments hitherto considered might lead one to suppose.

[1] See W. T. Marvin, "The Emancipation of Metaphysics from Epistemology" in E. B. Holt, and others, *The New Realism* (N. Y., Macmillan, 1912), pp. 45-95, esp. p. 65.

At least two questions must be answered if we are justly to appraise the monistic interpretation of knowledge by acquaintance; these are, first, Just how much knowledge by acquaintance is there? and secondly, Does knowledge by acquaintance presuppose that idea and object are one?

To the first question widely divergent answers have been given. The Scotch School of Common Sense (late eighteenth and early nineteenth centuries) would regard most of our ordinary beliefs about the nature of persons and things as immediate certainties; whereas John Grote would say that there is really no knowledge that is wholly immediate and free from inference and reasoning. Even Bertrand Russell, who makes much of knowledge by acquaintance, admits that "it would be rash to assume that human beings ever, in fact, have acquaintance with things without at the same time knowing some truth about them." The doctors disagree,—no unusual event among doctors of philosophy; yet, as is often the case in differences of opinion, there is at least one point on which all would agree, namely, that our own present consciousness is as nearly immediate as anything could be. In this consciousness, sense data are very prominent. Sense data, then, are as immediate as anything is. But if I inquire about the immediacy of my perception of the redness of this red book on my desk, the temporal character of the perception alone is enough to make me pause. That is, any sense perception is a process in time; and if the mind binds together the successive instants in the perception and connects them all with one object, even the simple sense datum to a certain extent is infected with description and mediation.[1]

[1] This argument is not refuted by James's position that relations as well as terms are immediately experienced; for in the temporal relation there is a reference to the past that now is not; and reference to what is not present destroys immediacy.

If we are looking for what is merely immediate and void of all descriptive elements, we seem to have before us the prospect of a long search in waterless places. Mere acquaintance is indeed, as James put it, a "dumb way" of knowledge. Is there any experience or any truth that means anything if taken as merely immediate? Sense experience fails because it is temporal; no sooner does it appear than it vanishes into an irrevocable past, and it is, so to speak, not *there* long enough to be immediate; or at best, it is a series of "immediates" that come and go like mystic shadow shapes.

Yet this account, although analytically sound, strikes us as unreal. We *do* bind the present with the past; we keep on seeing the red book on the desk as one object, not as a phantasmagoria. If nothing is immediate, why does so much seem to be immediate? Perhaps the success of our analysis of the sense datum was due to our failure to take the whole immediate fact into account; what we are really acquainted with, what is really present to us, is not a sense datum merely, but is our total actual experience at any time. Perhaps, further, this total actual experience is a self-conscious life, a person, the very nature of which is, in part, to bind together past, present, and future, and thus to avoid the defect of the merely temporal sensation. In Chapter VI the problem of the self or person will be discussed. At present, we call attention to the fact that what we are acquainted with is our total personal experience; the living tissue of our being as a conscious self. It is by the interpretation of what we find in our conscious experience that we build up all knowledge. Every other pretended truth is an abstraction from our concrete self-life, and may or may not be true. The truth that I experience what I do is immediate, direct, and undeniable. In immediate personal consciousness, if anywhere, there is a true case of knowledge by acquaintance.

We must now return to the second question: Does knowledge by acquaintance presuppose that idea and object are one? In most of the supposed cases of knowledge by acquaintance, intuitive or immediate knowledge, such knowledge certainly does not presuppose that idea and object are one; if I see you, it does not follow that I am you, or that my seeing is you or any part of you. It means only that my present personal experience of seeing is one that is directly given and is not arrived at by reasoning. Yet there always remains a distinction between my perception as idea and its object as reality. There may be as many "intuitive" truths as you please; the validity of these truths is always other than the psychological fact of my perception.

But how shall we answer the question in the case of personal self-consciousness? Are not idea and object one in this instance? Is not my acquaintance with myself co-extensive with my personal conscious [1] life? It is, indeed, quite possible that our investigation of the nature of personality may lead us to conclude that a person is no more and no less than his conscious experience. In self-experience, then, there would not be two realities, a self that experiences and a self that is experienced. The experience is just one conscious life, one person.

Yet mere self-experience without self-interpretation is just as "dumb" as any other mere acquaintance would be. It is quite possible to say, with the poet, "I know everything except myself." Although self-experience is omnipresent and inevitable, self-knowledge is a rare and difficult achievement.

The conclusion, then, is this: that self-experience, of which epistemological monism would seem to be true, is not, prop-

[1] For the sake of clearness, we omit all reference to the subconscious at this point.

erly speaking, a case of knowledge; whereas in self-knowledge the aspect of myself that knows is distinct from the aspect of myself that is being known. All genuine self-knowledge, therefore, is dualistic. If, for instance, I know that I like onions, my knowledge is one fact, and my liking for the onions is another. When I know, I stand off and look at myself.

Epistemological monism cannot, then, build on the fact of "knowledge by acquaintance"; for that with which we are most certainly acquainted, our own self-experience, is not, so long as it remains mere experience, genuine knowledge; and as soon as our awareness becomes genuine knowledge, the situation ceases to be a monistic relation of idea and object and becomes dualistic.

There remains still a refuge for the epistemological monist. If he is willing to grant the force of the arguments thus far advanced, he will agree with us that the final appeal is to self-experience. But he would not be satisfied with the distinction between the monism of self-experience and the dualism of self-knowledge. He might argue that the presence of the two points of view is a defect, and that ultimately the dualism is to be reduced to a monism. The reduction is accomplished by the theory of the Absolute Self.[1] This theory advances the hypothesis (which it asserts that it can prove) that all reality is the experience of one Self, the Absolute, of whom all finite selves are members; it is the vine, we are the branches. Until the existence and the unity of this Self is understood, there will seem to be a duality between idea and object, between one self and another, between my knowledge of myself and myself as known. But if everything is included in the consciousness of one Absolute

[1] For a presentation of this standpoint, see, *e.g.*, Royce's *Spirit of Modern Philosophy* or Miss Calkins's *Persistent Problems of Philosophy.*

Self, which knows everything in one completely coherent, all-inclusive act of conscious self-experience, there is no ultimate distinction between idea and object; the knowledge possessed by the Absolute and the being of the universe are one and the same fact.

About such a view as this, which has cast a potent spell over many minds, it can only be said at this point that it is a highly speculative theory of metaphysics. It gives an account of divine epistemology; but leaves us human beings still on a dualistic basis. Perhaps monism is true in heaven; dualism is certainly the fact on earth. The mystic who "becomes God," who feels his absolute identity with the divine may however assert a celestial monism in a terrestrial environment. Hence, we cannot regard this point of view as refuted until we have considered the nature of personality, the facts of religion, and our general metaphysical outlook. Meanwhile, we are justified even by the absolutist in regarding terrestrial knowledge as dualistic in structure.

§ 7. ARGUMENTS FOR EPISTEMOLOGICAL DUALISM

After this survey of the monistic objections to epistemological dualism, it remains to consider the positive arguments for dualism. The question at issue between monism and dualism, as between any two mutually exclusive points of view, is, Which is the more reasonable, the more inclusive, in short, the more coherent of the two? In view of the fact that absolute idealism, the historical source of the coherence theory, has inclined toward monism, in the form of the theory of the Absolute Self, it is evident that many would challenge any claim of dualism to a higher degree of coherence; yet it is on its ability to establish this claim that the

dualistic case depends. Too many other questions (psychological, logical, and ontological) are involved for the present discussion to pretend to completeness. We shall, then, proceed to state briefly some of the grounds for dualism as a theory of human knowledge,—leaving the Absolute Self out of consideration for the present.

If transtemporal reference [1] be a fact, dualism is true. Transtemporal reference is the reference of an idea, I, occurring at some time, T, to an event occurring at some other time, $T \pm n$. Just as surely as T and $T \pm n$ are not the same fact, so surely is I not identical with any object located at $T \pm n$.

Similarly, trans-spatial reference probably implies dualism, but with somewhat less cogency. Ideas have a location in time, but not in space. Yet it may be said, with considerable plausibility, that if an idea, I, occurring in connection with a human organism located at S, can refer to a point in space, $S + n$, which is not accessible to the senses of the organism, it becomes highly improbable that I and $S + n$ are identical facts. My idea of the center of the earth or of the seeds of an apple that I have never seen cannot be identical with the objects.

If there is truth in the belief that other selves exist and that no part of one self can ever be identical with any part of another, dualism is valid; for when I know another self, my idea is no part of him, and he is no part of my idea. The force of this argument, however, depends on one's theory of consciousness, which will be discussed in a later chapter.

The apparent coherence of monism is attained by denying or minimizing certain facts; panobjectivism, taken liter-

[1] Especially emphasized by A. O. Lovejoy; sometimes called "intertemporal cognition."

ally, denies truth to the subject;[1] and epistemological idealism in the end denies the object (Hegel to the contrary notwithstanding). Dualism regards it as the function of philosophy to take the facts of our conscious life as given and to seek a coherent expression for them.

Dualism gives a clear and adequate account of the fact of error. Our ideas refer to objects, but they often fail to reach the truth about them because they are based on insufficient observation, incoherent thinking, or distorted data arising from defects of our sense organs. Monism, on the contrary, whether in the panobjectivistic[2] or idealistic form, has difficulty in telling how error could arise. If idea and object are one, how can idea be inadequate to object?

The difficulty in accounting for error has led some monists to postulate a realm in which dwell actual contradictions, round squares, long shorts and yellow sounds; and to suppose that when we err, we know these entities. But even if this peculiar hypothesis be granted, there is no real place for error; for error, on this theory, becomes nothing but true acquaintance with the realm of contradiction. Nor is the view of absolute idealism a better way out. If we admit the Absolute Self and assert that our error is due to the fact that we are only a part of the Absolute and hence know only partial truth, we are still in difficulty. Like the panobjectivist, the absolutist explains error by saying that there really isn't any error. The absolutist has on his hands a further problem of his own, namely, the contradiction between the point of view of the finite and the point of view of the Absolute. It is a solid fact that I am ignorant and

[1] Professor Montague has, however, assured the writer in conversation that neo-realism never intended to deny the subject.

[2] Perhaps the best study of this problem is Dr. Benjamin D. Scott's unpublished dissertation on *The Problem of Error in American Neo-Realism.*

err grievously; and it seems impossible that my error, in all its ignorance and erroneousness, should be part of an Absolute Mind that transcends all error in perfect knowledge of truth. If the Absolute can contain my knowledge as I possess it, with all its infection of error, and also that same knowledge, perfectly explained and understood in the light of all truth, the Absolute must have a singular capacity for playing intellectual hide-and-seek with itself.

Finally, dualism has the advantage of leaving the metaphysical question—the question about what kind of universe this is—open for further investigation. A thorough-going epistemological monist of the idealistic type is, if consistent, either a solipsist or an absolute idealist; if of the panobjectivist type, he has a universe from which mind or personality is ruled out except as a product of the relations of objects. The dualist, however, recognizes that the problems about the nature of object and of subject are to be settled on other grounds than reference to the knowledge relation. Dualism, at any rate, leaves room for minds and their objects, whatever minds and their objects may turn out to be.

§ 8. THE OBJECTIVE REFERENCE OF THOUGHT

Out of the rather abstract discussion of the problem of knowledge up to this point one result emerges very definitely: our ideas refer to reality, and in so doing (if dualism be true) they refer to something beyond themselves. This is called the objective reference of thought. Current thought is confused at this point by the fact that many, especially pragmatists, take objective reference to mean reference to an object that will be immediately present in future experience. If, however, this were the only type of objective reference, knowledge would, as we have seen, be essentially impos-

sible. The object to which I refer, if it be my future happiness, may some time become present experience; if it be my death, it will certainly be present experience one day; but if it be last evening, or Boyle's law, or infinity, it will never be any one's present experience. Such objects cannot be present or "presented"; they can only be referred to, meant, known. Here is illustrated the value of the criterion of coherence; for only that criterion is at once comprehensive and rigorous enough to organize and judge a body of truth referring to such diverse objects as we human beings know.

The fact of objective reference is a fundamental trait of mind. A more careful inspection of this fact reveals certain laws of objective reference that are of great importance. In our objects there is much that from the point of view of our minds is foreign, arbitrary, unpredictable, and (as some have said) "irrational." If I had never seen anything red, I could never predict or reason out what redness would be. Despite the seeming irrationality of experience, the sciences have discovered uniformities that they call laws. Scientific laws, however, apply only to certain classes of objects or to objects only under certain conditions. Philosophy inquires whether there are laws universally true of all our objects or more necessarily true than the laws of science. Hence the problem arises, What are the fundamental laws of objective reference? These fundamental laws or principles are known to philosophy as categories.

§ 9. THE CATEGORIES

The theory of categories goes back, like so much else, to Aristotle. He believed that the most universal affirmations that we make about objects may be discovered by a study of the grammatical structure of language; for lan-

guage expresses all that we say about things. At different stages of his thought, Aristotle gave different lists of categories. The following were mentioned by him at one time or another: substance, quantity, quality, relation, place, time, action, passion or passivity, position, condition. Later philosophers, the Stoics, Plotinus, the scholastics, and modern thinkers, have suggested varying lists. The most famous table is the one used by Immanuel Kant, subdivided into four sections as follows: Quantity (unity, plurality, totality), Quality (reality, negation, limitation), Relation (inherence and subsistence, causality and dependence, community or reciprocity), Modality (possibility and impossibility, existence and non-existence, necessity and contingency). This list is artificially constructed; its value lies chiefly in its giving Kant a starting-point for his discussion of the problems. Hegel made a famous attempt to base metaphysics on a dialectic which showed the necessary logical relations of the categories. His table is divided as follows: Being (quality, quantity, measure), Essence (ground, appearance, actuality), Concept (subjective concept, object, Idea).

There is wide difference of opinion among recent philosophers about categories; there is disagreement about their number, their logical order, their relative importance, and even about the meaning of the whole problem of the categories. A survey of these differences would carry us too far afield.[1] For purposes of comparison with the older lists, one more recent table is given herewith:[2] time, number, space, motion, quantity, being, quality, identity, causality, necessity ("a much more doubtful category than the preceding ones"), possibility (also "doubtful"), and purpose (which Bowne regards as highest).

[1] See E. G. Spaulding, *The New Rationalism,* Ch. 29, esp. p. 222.
[2] From B. P. Bowne, *Theory of Thought and Knowledge,* pp. 66-116.

It is easy to see that if we could tell precisely what the categories are and could define them, we should have found the clew to the riddle of the universe. The attempt to do this we must dispense with; for the systematic interpretation of the categories belongs to metaphysics, and in this chapter we are interested in the categories only as they relate to the epistemological problem. Our discussion will take the form of questions, with a brief statement of possible answers.

(1) WHAT ARE CATEGORIES? We have called them the fundamental laws of objective reference. This is an insufficient definition. What is a fundamental law? A fundamental law is one that is logically essential to the very being of the system of objects to which it refers. The laws of the natural sciences are not "fundamental," but empirical. The speed of light is about 186,300 miles a second; but there seems to be no logical reason why it should not be a few hundred or thousand miles more or less than 186,300. If it were ever so little more or less, great changes in the physical world would doubtless ensue; but there is no reason to suppose that matter and energy would therefore cease to be. A category must be fundamental in a sense in which the speed of light is not. Space, for instance, is a category; for if there were no space, the entire realm of space-objects would be blotted out; light, at any speed, all matter and all motion, would be impossible. Time is a category; for the world of change and motion would be impossible if there were no time. Being is a category; for if there were no being, there would be nothing whatever to know. A category tells us something universal and necessary (or *a priori,* as Kant put it) about the world that we experience.

(2) HOW MAY THE CATEGORIES BE CLASSIFIED? It is not necessary to debate the many different theories about the logical order of the categories. The very definition of

category, however, suggests one type of classification. A category, we have said, is a law essential to the being of the system to which it refers. Categories, then, may be classified into two groups: first, those that are true of the universe as a whole; secondly, those that are valid of some lesser system of objects. The first group is called metaphysical. The goal of philosophy may be described as the discovery of the truly metaphysical categories. The second group contains an indefinite variety of systems; but since the world of space and time bulks so large in human experience and in science, it may be regarded as the chief subject matter of the second group. Categories of the objects of the physical, spatio-temporal system are often called categories of phenomena. The term *phenomena,* meaning things as they appear, goes back to Plato, and was used in a special sense by Kant. Science employs the term to mean merely facts or events. Use of the expression "categories of phenomena" is not intended to commit us to the theories of Plato, or of Kant, or of any one else; but only to point out the categories that refer to the physical order. Whether some, or even all, of the phenomenal categories (space, time, motion, cause, number, quality) are also metaphysical is a problem. We know that they are true of a part of the universe; are they also true of the whole? Our answer to this question will show whether we are to be materialists, agnostics, idealists, realists, theists, atheists, or what not in philosophical outlook.

(3) How is Any Given Principle Proved to be a Category? This question should be put explicitly, because in too many discussions it appears as though the categories fell from heaven at the philosopher's feet, or were immediately evident to any one who inspects his own mind, or—worst of all—were true because some important and re-

spected book says so. There is a more excellent way of telling a category when we see one. How were we able to decide that the speed of light is not a category, but that space is? In a word, thus: if we deny the speed of light, we contradict a great many facts of experience, but we do not deny that we have experience; if we deny space, however, we do not deny certain particular facts merely; we deny the possibility of all experience of physical objects. A category, then, may be identified by the fact that, if it be not true, a whole system of experience is impossible. Denial of a valid empirical law contradicts particular facts or the interpretation of them; denial of a category contradicts the possibility of there being any facts of the sort in question. If there are no space and time, there is no physical world. Categories are the structural principles of a coherent system.

(4) ARE CATEGORIES PRINCIPLES OF THOUGHT OR PRINCIPLES OF BEING OR BOTH? That, it might well be said, is the question! About this point center some of the sharpest divergencies of philosophical opinion. What we have called "Kantian" subjectivism regards the categories as principles of thought, but not of being; modern panobjectivism regards them as the most universal characters of being and only derivatively characters of thought; most metaphysicians hold that some, at least, of the categories are both principles of thought and principles of being. All would agree, the panobjectivist most grudgingly, that the categories are in some sense principles of thought. What I assert universally about the world must be something that my thought is able to assert; if I talk about space, or time, or cause, my mind must be able to think in terms of space, time, and cause.

This thinking is an interpretation, which carries thought far beyond the particular present experience. Hence the

mind is often said (since Kant) to be active in knowledge. Objective reference is an act of the mind. The specializing of this reference according to the categories is mental activity. In view of this activity, it is misleading to speak, as some do, of categories as "mental pigeon-holes" or "molds into which experience is poured."

§ 10. TRANSITION TO THE FOLLOWING CHAPTER

Important as is the recognition of the activity of the mind in knowledge, the metaphysical problem, to which we shall address ourselves in the following chapters, is more important. In terms of the results of the present chapter, the metaphysical problem may be described as an attempt to answer the questions: What is the reality to which my ideas refer? What is the nature of the realm of objects-other-than-my-idea? What categories of my thought afford the most coherent interpretation of the world of experience?

CHAPTER IV

WHAT ARE PHYSICAL THINGS?

§ 1. THE PLACE OF THIS CHAPTER IN THE BOOK AS A WHOLE

Philosophy seeks to describe reality. The first three chapters of this book have dealt with necessary preliminaries, but have not contributed directly to an account of reality. After the introductory description of the philosophical spirit, some of the fundamental problems of logic and epistemology were taken up. Logic and epistemology together do not, however, tell us anything specific about the structure of reality. They presuppose, it is true, that reality is orderly, rational, knowable.[1] Beyond this they do not venture.

The direct and explicit attempt to solve the problem of reality is called metaphysics. The word is from the Greek and was first used by Andronicus of Rhodes, who called Aristotle's treatise on the subject, "The Things that come after Physics" (τὰ μετὰ τὰ φυσικά), hence, Metaphysics. *Metaphysics* is a word of strange and forbidding sound; it smacks of the mysterious and transcendental (whatever the transcendental may be). When a modern writer wishes to condemn an idea as abstruse or impractical, he casts about for a term of reproach, and nothing suits him better for the purpose than *metaphysical.* It is unfortunate that the word

[1] Note Hegel's famous saying, "Was vernünftig ist, das ist wirklich, und was wirklich ist, das ist vernünftig." (What is rational is actual, and what is actual is rational.)

has thus fallen on evil days, for metaphysics is no more than the attempt to define what is truly real. A metaphysical account of anything is simply an "unusually persistent" attempt to think truly about it; the formidable adjective, *metaphysical,* often means no more than *real* in an emphatic sense. "Metaphysical reality," of which philosophy talks so much, is real reality; that is, reality as it is understood when we are thinking coherently about it, as contrasted with reality as it appears in unthinking experience or even in experience incompletely interpreted. The rest of this book will deal with metaphysical problems, as thus defined.

Metaphysics was divided by Christian Wolff into four subdivisions,—ontology, cosmology, psychology, and theology. Ontology, or theory of being, undertakes to answer the question, What does it mean to be? Cosmology, or theory of the order of the universe, puts the question, How shall we think of the system of reality as a whole? Psychology, or theory of the soul, asks, What is the nature of the soul, spirit, or mind? Rational theology (as distinguished from revealed theology) is the theory of God in so far as he is accessible to reason. This classification, long followed by philosophers, is no longer adhered to. It separates problems that belong together and artificially limits the scope of inquiry. Modern metaphysical thought has been enlarged by the addition of what is called axiology, or theory of values. Wolff's terms are, however, still widely used.

§ 2. PHYSICAL THINGS AS STARTING POINT OF METAPHYSICS

One might suppose that it makes little difference where we begin metaphysical inquiry, if only we will think. Metaphysics might begin with the human soul, or with the dust

under our feet, or with numbers, or with the sun in heaven. But after all some starting points are much more complex and confusing than others. It is best to commence the inquiry at a point that is generally intelligible and generally agreed on. The world of physical objects appears to meet these qualifications. Every one experiences such objects and knows, for practical purposes, what is meant by them.

By physical things are meant those objects that can be located in the system of space and time by means of which we communicate with each other. An ideal is not a physical thing, for it cannot be located anywhere in particular; and a dream-object or imaginary object is not physical, for, although located spatially and temporally, it is not in the public space by which we communicate with others. An onion of my fancy cannot be shown to my neighbor and brings no tears to his eyes. The chairman of our intellectual life excludes the onion of imagination or dream from membership in the committee on physical things.

Of our experiences, then, we say that some refer to real physical things and some do not. Things are not all that we are conscious of. There are also the conscious states themselves (which are located nowhere in space), universals (neither in space nor in time), and values (the status of which is problematic). It is, however, more natural to begin with the physical order than with the other forms of being; for the tendency of thought is toward the object, and particularly toward the physical object. The history of philosophy and of science began with the material world. The very existence of minds appears to depend on physical facts in the nervous system.

The question, What are things, and what is their place in reality? is sufficiently fundamental to warrant our beginning with it.

§ 3. METHOD OF INVESTIGATION

We shall start by seeking to define the view of things that is held by the ordinary intelligent person whose mind has not been enlightened (or corrupted!) by philosophy. This unsophisticated attitude is usually called naïve realism. We shall then proceed from naïve realism to the account of things given by science; and thence to the philosophical analysis of things.

Lest some reader become unduly suspicious at this point, it is well to state explicitly that philosophy has no fell designs. No philosophy has ever denied that there are physical things. Philosophy does not (as some seem to fear) aim to deny the reality of physical things; it aims only, with persistent inquisitiveness, to inquire what these things are. The question of philosophy is, How can I think about things in a way that is at once intelligible and self-consistent?

§ 4. PHYSICAL THINGS AS THEY ARE FOR NAÏVE REALISM

The man who has not indulged in the questioning habit of the philosopher is pretty firm in the faith that things are just as they appear to be. He eats, chops, wears, welds things to his satisfaction; how foolish, he would say, to ask whether things are other than they seem! He looks through the eyes of Peter Bell.

> "A primrose by a river's brim
> A yellow primrose was to him,
> And it was nothing more."

Why should a yellow primrose be anything more or less than a yellow primrose? What more can be said? There your naïve realist stands pat. If the philosopher is restless and wishes thought to move on, the common man, agreeing for once with Berkeley, accuses the philosopher of raising a dust and then complaining that he cannot see.

The naïve realist evidently takes the report of his senses about primroses and other things as the truth. In Chapter II it was shown how ill it fares with a view that makes sensation the criterion of truth, and the most naïve of realists must begin to make reservations in the light of experience. The same thing appears to the senses to be different under different conditions. A stick appears straight in the air and bent in the water; the water feels cold to a warm hand and warm to a cold one. To a certain type of color-blind eye, the yellow primrose appears gray. At a distance all objects appear small; near by they seem larger. The same thing cannot be both straight and crooked, both cold and warm, both yellow and gray, both small and large, unless the universe is a madhouse.

Confronted with these facts, the naïve realist tones down his assertion and admits that things are not always as they appear, but are as they appear under certain conditions. Then arises the question, Where or what are these favored conditions, when is the auspicious moment to see the thing as it really is? After reflection the realist will probably reply that things really are as they appear to normal senses under normal conditions. This is probably the best answer he can make without surrendering his position entirely; but it is not entirely convincing.

How, the realist may be asked, shall we decide what senses are normal? Shall we appeal to majority vote and

say that the primrose is yellow because most of us see it so? The appeal to the majority is democratic; but democracy is dubious as a guide to truth. The great discoveries and inventions have usually been made by men in a minority of one. The frontiers of thought and truth are penetrated by only a few daring spirits. It is socially useful to agree with majority opinion; but real intellectual progress comes from those who, like Charles Peirce, "belong to that class of scalawags who prefer, with God's help, to look the truth in the face, whether doing so be to the interests of society or not."[1] We are not likely to find what senses are "normal" and truth-revealing either by majority vote or by striking an average. Indeed, no trustworthy decision is possible without recourse to science.

There are other difficulties in naïve realism. On what ground, we might inquire, do you say that the primrose you see and the primrose you touch with your fingers are one and the same flower? You surely cannot see your sensation of touch nor can you touch visual sensation; how then can you say, on your principles, that the primrose is one flower? Does it not appear as several different kinds of sensation which the mind connects together and calls a flower? Or, to raise a different question, if things are just as they appear how can you account for the fact that things change? If the primrose really is yellow and nothing more, how does it come to be black after it is burned? An object capable of such change must be more than it appeared to be!

The objections to naïve realism are so fundamental that the position must be abandoned, as it is by every one who accepts physics and chemistry. Naïve realism gives way to science.

[1] Cited in Rogers, *English and American Philosophy since* 1800.

§ 5. PHYSICAL THINGS AS THEY ARE FOR SCIENCE

As soon as men began to think about things they discovered that the reports of sensation were self-contradictory and fruitless. One of man's first insights is that appearances are deceitful. Science, like common sense, starts with appearances. The various salts, bases, acids, and the like with which the chemist deals appear to him as they appear to the most unscientific observer. No text-book on chemistry, however, confines itself to descriptions of the appearances of elements and compounds; it proceeds to an account of chemical laws.

The sciences have found that the only way to manage physical things is to experiment with them, analyze them, and formulate hypotheses about the laws of their structure and behavior. An hypothesis is said to be verified when the facts occur as the hypothesis predicts. Verification becomes more cogent when the hypothesis has mathematical form.

When science has done its work, we can no longer say that things really are as they appear to be. Apples are still seen as red and primroses as yellow, but physics is not interested in the psychological experience called redness or in the experience of yellowness. For physics, the redness is not what we see; but it is a certain kind of light wave reflected from the surface of the apple. Red and yellow differ only in wave-length. According to what has been the accepted theory, the universe is filled with a tenuous medium called ether.[1] Light is a form of radiant energy traveling in wave form through the ether at a rate of about 186,300 miles a second. The wave length is the distance

[1] Recent experiments, culminating in Einstein's theories, have cast doubt on the hypothesis of the ether; but Einstein makes things worse rather than better for the naïve realist.

from crest to crest of two adjacent waves. When we see the redness of the much-discussed red apple, the physical fact is reflected light of wave-lengths in the region of 671 $\mu\mu$;[1] when we see the yellow of the yellow primrose, the fact is the reflection of wave-lengths in the region of 580 $\mu\mu$. The range of visible color in the spectrum is from deep red (about 770 $\mu\mu$) to deep violet (about 390 $\mu\mu$). Waves somewhat longer than 770 $\mu\mu$ are called infra-red and constitute the so-called heat spectrum; those somewhat shorter than 390 $\mu\mu$ are called ultra-violet, and give photographic and other effects; but neither are visible to the human eye. These facts, the physics of which is beyond question, however meanly we may think of the ether, annihilate naïve realism. Speculative minds have sometimes inquired what would be the result in human perception if some operation could connect the optic nerve with the auditory nerve, so that the impressions now received on the retina and transmitted to the visual area of the brain were switched to the auditory area. It has been suggested that what we now see as a color might then be heard as a sound. Such speculations, however, are not needed to support the conclusion of physics that our psychological experience of color is an effect of a physical fact that has no color in the psychological sense.

Sound causes similar catastrophe to naïve realism. Science shows that the physical basis of sound is a form of energy transmitted in longitudinal vibrations by any elastic material medium, usually by air; and that under standard conditions it travels about 1,087 ft. a second in air. Differences in the pitch of heard sounds are due to differences in

[1] $\mu\mu$ is the standard designation for a millimicron, *i. e.*, one millionth part of a millimeter. For condensed data see the articles in any good dictionary or encyclopedia on *spectrum, color, and light.*

the number of vibrations that occur each second. The tone of lowest audible pitch is about 16 vibrations a second; that of highest audible pitch is about 41,000 a second. In nature, then, there is nothing like our perception of sound.

Thus science solves the old puzzles about whether there are sound and color where there is no ear or eye to perceive them. The answer is that, if you mean by sound and color our conscious perceptions or anything like them, there is no sound when the oak crashes to the ground in a forest where there is no ear; there is no color in the most gorgeous tropical flowers, if no eye ever gazes upon them. But, the physicist will add, by sound and color I mean certain forms of energy which may be measured as our percepts cannot be, and which are there whether or not there be an eye or an ear in the universe.

What then are physical things? The naïve realist said, Things are just as they appear to our senses. The physicist says, Things are indeed such as to produce certain sensations in us, but the thing is wholly unlike the sensation that it produces. Physical sound and color are as different from psychological sound and color as the pleasure that arises from eating a good beefsteak is from the appearance of the steak to the eye.

Now let us look at the physical world from another point of view. It is a familiar fact that physics and chemistry have analyzed what we call matter into molecules, and molecules into atoms. The word *atom* in Greek means "what cannot be cut." Modern science has taken this word as a challenge, and has proceeded to cut the uncuttable.[1] Since

[1] See Sir Ernest Rutherford's article, "The Constitution of Matter," in Vol. 31 of the *Enc. Brit., New Volumes;* also the article, "Radioactivity" in Vol. 32. Other instructive treatments are Mills, *The Realities of Modern Science;* Comstock and Troland, *Matter and Electricity,* esp. pp. 34-41; J. A. Thomson, *Outline of Science,* Vol. I, pp. 245-290; Oesterreich, *Das Weltbild der Gegenwart.*

the discovery of radium by the Curies and Bémont in 1898 there has been remarkable progress in the study of radio-activity and of the nature of the atom.

Probably the average person who has heard of atoms regards them as tiny solid bodies, indivisible and impenetrable. Not so the modern physicist. For him, atoms may be as complex as a solar system and fairly swarm with extremely small particles which carry electric charges. Each atom, he holds, has a nucleus, which is positively charged, and which is surrounded at some distance by one or more electrons. All electrons are negatively charged. If the naïve realist still survives, he may grasp at the nucleus as a final "uncuttable," the last hope of his way of thinking. The physicist, however, has no mercy on the man who wants to stop thinking; and he proceeds to analyze the nucleus into protons and electrons. The physicist will tell us that the electron always bears a unit of negative electricity, and that the proton is positive and of much greater mass than the electron. The properties of the elements in the table of elements have been explained in terms of the number and arrangement of protons and electrons in each atom, and the proton has been shown to be the hydrogen nucleus.

Modern science has thus opened a new micro-universe to human knowledge. The electro-magnetic theory of matter, as it is called, marks great advance in physics; it unifies our knowledge; it renders conceivable a future control of the forces now locked up in the atom; and it is an additional refutation of the uncritical realism and materialism based on blind trust of the senses. But does it answer our question, What are physical things? It tells us, indeed, that all things, no matter how stable and solid they may seem, be they rock or flint or diamond, are like electricity. It teaches us that

appearances are deceptive; that the physical universe is not sights and sounds and odors and solids, but is one great storehouse of electric energy. All the matter and energy that there is can be measured mathematically in terms of such physical quantities as are found in the realm of electricity. Yet here there seems to be an anti-climax. If we turn confidently to the physicist, thinking that he has solved the riddle of the universe, he replies, "As to the electron itself no explanation can be given" (Mills, p. 88). "The nature of the electron is unknown" (J. A. Thomson, Vol. I, p. 288). Some think of the electron in terms of energy only; others hold that in every electron there is also a tiny solid particle of some sort (the ghost, we may call it, of naïve realism). But energy is only the ability to perform work. If we reduce everything to energy, our thought is somewhat simplified, but the inner nature of energy, or that which produces it, the spring of its being, remains unknown. Indeed, science could not even form an hypothesis about the real nature of energy without trespassing on the problem and standpoint of philosophy; but the philosopher is unwilling to leave the problem where the scientist properly leaves it.

§ 6. PHYSICAL THINGS AS THEY ARE FOR PHILOSOPHY

Four possible philosophical methods were discussed in Chapter I,—the rationalistic, the scientific, the romantic, and the synoptic. In that discussion, the rationalistic and the romantic methods were shown to be unsound, although each contains something of value. The scientific and the synoptic methods were shown to be valid, provided each is supplemented by the other. The scientific method was

subdivided into the experimental and the analytic, and the former was seen to be subsidiary to the latter. Fundamentally, then, there are two sound philosophical methods, the analytic and the synoptic, which depend on and supplement each other. One of the interesting facts about the history of thought is that philosophical analysis and synopsis have often anticipated the results of science. Philosophers saw the truth of evolution long before Darwin worked out his theory; and philosophers originated the atomic theory long before modern scientists verified it. Neither sense perception nor science gives a fully satisfactory account of physical things; perhaps the various types of philosophy may contribute something to our understanding of the red apple and the yellow primrose.

(1) Analytic Philosophies. Democritus, whose works are unfortunately lost, was one of the great thinkers of the ancient world. He argued that no intellectual progress could be made so long as the qualities perceived by the senses were regarded as ultimate. He held that thought alone could give us knowledge of what truly is; not, indeed, by ignoring perception, but by formulating the theory that best explains and includes perceptions. His theory aimed to preserve the facts of experience (διασώζειν τὰ φαινόμενα), and also to make them intelligible to thought. His observations of change led him to the conclusion that none of the perceived qualities of things could be regarded as really belonging to the things themselves except their property of filling space and moving therein. The red apple may be baked brown or burned black; neither the red nor the brown nor the black is essential to the apple; but whatever happens the matter of which the apple is composed must still fill space, and the different colors are no more than the effect of its spatial movements on the human mind. Hence

Democritus regards the sense qualities in general as effects of the qualities which the things possess in themselves, such as form, size, hardness or softness, and motion. The analytic mind of Democritus perceived that the gross objects that we confront in experience are complex structures, and he held that they were made up of tiny, indivisible objects called atoms. The smoothest and finest atoms compose fire and the human soul. Atoms, it will be noted, are accepted as real because the method of analysis is trusted as leading to the truth about reality. Atoms are what can't be analyzed away.

The view of Democritus is the first clear-cut expression of atomistic materialism. It has been very influential in the history of philosophy and has striking points of contact with modern scientific theories. Modern science, however, experiences more difficulty than did Democritus in assuring itself that something unanalyzable has been found. The more we know about things, the more complex our atoms appear to be.

David Hume, who lived twenty-two centuries after Democritus, was an even more acutely analytic mind than the atomist of Abdera, and clung closer to the facts of experience. Hume held that what we experience is literally all that we can know. We may talk about things and space and atoms all we please, but what we experience is not things in space. It is simply our conscious life. Consciousness he analyzed into impressions and ideas. Impressions are "all our sensations, passions, and emotions as they make their first appearance in the soul" and ideas are "the faint images of these in thinking and reasoning." We know with certainty nothing save impressions and ideas and their relations; mind is therefore a collection of these elements, not a true unity. Thus the more rigorous analysis of Hume banishes from the field of knowledge even the atoms of Democ-

ritus, and everything that we know about physical things is transferred to the realm of impressions and ideas. That is to say, we know nothing about things; we know only their effects on our mind; our analyses are directed toward our own ideas, not toward things. Thus in Hume's hands the analytic method leads to skepticism. We can, he thinks, know nothing about things; we can know only our ideas. Further, we can experience nothing universal in our impressions and ideas; and such knowledge as we have is confined to particular impressions and ideas.

In recent philosophy there has developed a new application of analytic method. Certain forms of the new realism, so-called, are based on this method combined with a monistic epistemology. Democritus and Hume were both dualists. Roughly speaking, this dualism had led the analysis of Democritus to reduce everything, including mind itself, to physical things in the form of atoms; the same method and theory of knowledge had led Hume to reduce knowledge of physical things to knowledge of particular states of mind, leaving the things themselves unknown. American new realism believes that the analytic method of these philosophers was sound, although their dualistic epistemology was fallacious. Being, says this view, is not in itself physical (as Democritus taught) or distinctively mental (as the knowable world of Hume was); it is neutral, neither physical nor mental.

The "neutral entities" of analytic neo-realism sound strange and ghostly; yet they are not wholly unintelligible. If we start with the given world of colors and sounds, of space and time, and analyze it, we arrive at ultimate terms (such as points and instants) that cannot be further analyzed. We find these terms in what we call our minds; and we find them in what we call the physical world. In-

deed, there is nothing that we find in one of these orders that cannot also be found, in some form, in the other. Hence, argues the realist, reality is not essentially physical or essentially mental, but consists of entities that are neutral to the distinction between mind and matter. When these entities are grouped in certain relations they are physical things; when related in a specific way to a human organism, they may be called states of consciousness.

All views that lay chief stress on the analytic method agree, we observe, in holding that the structure of knowable reality is atomic, discrete, granular. The world that we know is made up, they hold, of tiny, ultimate particles (whether spatial, like atoms; or conscious, like impressions; or neutral, like realistic entities), the complex interrelationships of which constitute our world. The way to understand a thing, the analysts believe, is to pulverize it (actually or in thought) and analyze the powder.

There is no doubt that this method yields important results for practical life, science, and philosophy. There are, however, many thinkers who doubt whether this method of approach is likely to give us the whole truth about anything. It seems least likely to give the truth about organisms, whether biological or psychological; and many believe that the universe is in some sense organic and that analysis alone cannot account even for the simplest organic object. It is therefore important to consider the possible contributions of synoptic method to the understanding of physical things.

(2) Synoptic Philosophies. The differences between the analytic and the synoptic ways of philosophizing are differences in the notion of what it means to understand anything.[1] The former type believes that understanding is a

[1] See W. M. Urban, "The Intelligible World." *Phil. Rev.*, 33 (1924), 1-29, 115-142.

process of picking to pieces, of seeing how a thing works, as we say; the latter believes that nothing is thoroughly understood unless it is seen as a whole and its parts related to its functions and properties as a whole. The analyst holds that to understand is to dissect; the synoptist, that to understand is to know the living whole. The differences between them are partly a matter of emphasis; for the analyst must grant that a complete analysis includes those properties that belong to the whole as well as those belonging to the parts;[1] while the synoptist should be very clear that his view of the whole presupposes the work of analysis.[2] Yet the difference of emphasis is very important and issues in different interpretations of reality.

The great Greek, Plato, a contemporary of Democritus, was an advocate of the synoptic method. Plato based his philosophy on the teaching of Socrates that the way to truth is to define clearly what we mean by the terms we use. The Socratic method was that of questioning men in order to elicit from them a definition of what they mean when they talk about courage, or piety, or justice. When a definition is found that applies to every case of courage and that any thinking man will accept, this is the "concept" of courage. Socrates was probably interested chiefly in ethical concepts; Plato extended the method and sought to find concepts that are valid for our thinking about all sorts of objects, —tables and chairs and souls and God. These concepts Plato usually calls Ideas. He believes [3] that Ideas are not mere states of mind, but are objects that are real and inde-

[1] As in Professor Spaulding's chapter in *The New Realism.*

[2] As Sorley, in *Moral Values and the Idea of God.*

[3] There are wide differences among scholars in the interpretation of Plato, and the version given in the text is not accepted by all Platonists. All interpretations agree that Plato's method was synoptic.

pendent. The Ideas are related in a system or "hierarchy," at the head of which is the Idea of the Good. Everything must ultimately be understood in its relation to the Good. It is easy to see that Plato's method is synoptic; but it is not so easy to see just what becomes of physical things in this synopsis.

In order to grasp Plato's view of red apples and yellow primroses, we need to approach him without modern preconceptions. He looked at the red apple and said to himself (if we may venture to read his thought), "Just as long as I confine my attention to this apple as it is, or cut up fine into atoms, or baked, or dried, I have nothing but brute fact in front of me. Brute fact is not comprehensible. If I am to understand, I must relate the apple to other apples and to other fruit; and all fruit to other forms of life, until I have discovered all the laws of relation implied by the apple. These will culminate in relation to the Ultimate Good; when I know this system of relations as a whole, I know what the apple is, no sooner. The definition of the laws of redness is the Idea of red; that of the laws of appledom is the Idea of apple. The really true and important thing about this red apple is not its existence here and now, but its place in a rational universe. The fact that I see a particular red apple on this tree this afternoon is true enough as appearance or 'phenomenon'; but appearance is not reality. Appearance is a problem presented to us; reality is what solves the problem. The physical red apple is only appearance, a shadow cast by a reality other than itself." The phenomena that we call physical things come to be, Plato thinks, because the universal idea of apple and of the other physical objects somehow become involved with space and are reflected or embodied at particular locations in space. Empty space,

however, is, as every Greek philosopher would hold, simply non-being; it has no reality. Physical things, then, are a mixture of the universal Idea with non-being.

Plato's position is at first sight much less clear and plausible than that of Democritus. A little reflection will, however, show us that Plato is dealing with a side of rational experience that Democritus neglects. The progress of science has always been toward the formulation of universal laws rather than toward mere contemplation of the solid, impenetrable atom as an individual and separate fact. The only interest that the scientist has in molecules, atoms, electrons, or protons is that the acceptance of these entities enables him to work out mathematical laws about the behavior of matter. Modern science sees "the reign of law"; Plato saw Ideas. Both are more synoptic and more philosophical than any view that centers its attention on the material atoms, the dust of the universe, and ignores the universal rational principles that breathe into this dust the breath of life.[1]

Much, then, may be said for Plato's method; but he went further in his speculations than the legitimate function of philosophy permits. The aim of philosophy is to interpret experience synoptically. Plato appears to have interpreted one side of experience, its universal and rational meaning, at the expense of the concrete, particular facts that remain stubborn realities of every day. For him, phenomena vanish; Ideas remain.

Leibniz, one of the great figures in the history of modern philosophy, applies the synoptic method in a different manner. The problems of thought in the seventeenth and eighteenth centuries were such that Leibniz expressed himself in quite non-Platonic terms; but his mind was in many

[1] The discussion in the text exaggerates the difference between Democritus and Plato in order to bring out the principle at stake.

respects of the Platonic type. Fortunately he was able to avoid some of Plato's defects. Leibniz belonged to the school of continental rationalists of which Descartes was the founder. His interest, then, was in reason, in the universal, as was Plato's. But his scientific training turned his mind to the concrete facts; and his opposition to the exclusively analytic methods of the British empiricists led him to aim at a philosophy that should synthesize the facts of concrete experience with the demands of synoptic thinking.

The following exposition will interpret Leibniz freely and will not be confined to his modes of expression. At one fundamental point, held Leibniz, Plato was wrong; important as are universals, laws, Ideas, they are never concrete reality. Science also lays too much stress on laws. Reality is always particular, whether in the red apple or the human mind. Individuals are real; this is proved (as Descartes had shown) by the fact that I cannot deny my own existence. My self-existence is the most fundamentally certain fact; and it is no mere Idea or law: it is a particular individual. Furthermore, everything that we can reasonably call real is active; it behaves in a certain way, it changes. Atoms that never did anything would never help Democritus or any one else to explain this world of life and motion in which rest itself is but a form of motion. "Quod non agit, non existit. . . . La substance est un être capable d'action." [1]

Hence, says Leibniz, the real is concrete, active individuality. He gives the name "monad" to every concrete, active individual; and his theory is called "monadology." There is, he holds, one monad that is known to us with immediate certainty, namely, our own personal conscious being. It has

[1] "What does not act, does not exist. . . . Substance is a being capable of action." This theory is widely accepted in philosophical circles to-day. See J. Ward, Bowne, Boodin, and Leighton.

certain important traits; it is an organic, rational, synoptic unity, not a mere aggregate of sensations as the empiricists think; further, it is a self-experience. As self-experience, consciousness exists for itself alone. No atom of it can be separated and float off to some other context; none of it can be ladled out like soup and transferred to the dish of another mind. "The monads have no windows"; no consciousness can enter my mind from without, nor can any leave my mind to dwell in some other mind. Within every monad is a seething mass of activity that "mirrors" the rest of the world, without anything from that world being able literally to enter the mind. It is clear that Leibniz is a stalwart epistemological dualist.

Having found these traits of the monads from a study of the human soul, Leibniz is convinced that all things may be explained on the supposition that reality is a system of monads. Some monads have the properties of activity and of "mirroring" the universe to a slight degree, while others act and mirror more adequately.

It is interesting to note that Leibniz cannot leave his system at this point and be true to his synoptic principle, for, while each monad is a synoptic unity, the system of monads appears to be a chaos. If all monads are active and constantly changing within themselves, and yet have no windows and can never act on others, we appear to have analyzed the world into a separateness and looseness that rivals Democritus and Hume, and leaves the systematic connections of things unexplained. Leibniz, however, was no better satisfied with this separateness than is the reader of this chapter, and he argued that the many dependent monads would be impossible if there were not one supreme Monad on which all others depend. The separateness of the monads is demanded by our self-experience; the unity of the monads

and their dependence on the Monad of monads, or God, is demanded by the synoptic nature of reason.

We are not here concerned to work out the full implications of this profound and fascinating philosophy. We wish only to know what he would tell us about the red apple and the yellow primrose. He would say, with Democritus and Plato and modern science, that the apple as it appears is not the real apple. The truth about the apple can be understood only when in our thinking about it we reach rational self-consistency. If we follow the track of Democritus, we come to atoms; whatever these atoms may be, says Leibniz, they must be concrete, active individuals that have an inner structure and are, somehow, like mind; or at least they must be parts of such individuals. If we follow the track of Plato, we come to Ideas; however universal and valid Ideas may be, says Leibniz, they are real only in the activities of concrete monads. But, he adds, Ideas are valid, and they drive us to the conception of a supreme, conscious, active intelligence, the Monad of monads, on which the existence and the apparent interaction of the monads depends. Physical things, then, are for Leibniz centers of energy which function in harmony ("preëstablished harmony" he calls it) because of their dependence on the supreme mind.

Enough has been said to illustrate the differences between the analytic and the synoptic ways of accounting for physical things. The analytic way accounts for the whole in terms of the parts; for the complex in terms of the simple; for the active in terms of the inactive. The synoptic way accounts for the parts in terms of the whole; for the simple in terms of the complex; for the inactive in terms of the active. Speaking broadly and using the language of values, we may say that analysis is explanation of the higher in terms of the lower, and is the method of what is called materialism; and

synopsis is the explanation of the lower in terms of the higher, and is the method of idealism.

§ 7. CONCLUSIONS ABOUT THE NATURE OF PHYSICAL THINGS

All reasoned accounts of the world of physical things agree that things are not just what they appear to be. If we are to understand things as they are, we must analyze them and relate their parts to each other and to our view of the whole of reality. All agree that when we see a red apple, there is something "there" that is real and dependable and that somehow causes us to have the experience of a red apple. Democritus would make this causation direct, from object to mind; Leibniz would make it indirect, the Monad of monads being the true cause. All scientists and philosophers would agree that an observed physical thing is nothing ultimate; for science, the whole world of physical objects consists of inconceivable quintillions of quintillions of electrons and protons, grouped in more or less stable clusters of energy systems, but all belonging to one great system that we call the physical universe. It serves the interests of us human beings to pick out certain of the minor clusters and call them things. If our bodies had happened to be as small as an electron, what we now call one thing,—a grain of salt, a drop of water—would be a universe of complexity. If our body were as large as the sun, and our life-time as long as its, this whole earth would seem to be one tiny thing undergoing strange alterations; mountains and valleys would rise and fall like the waves of the ocean. Whatever may be the truth about Einstein's doctrine, the relativity of the world of things is a truth that cannot escape any one who views the facts in perspective.

From the study of physical things has been won the further insight that they are an interacting system. To be a thing, as Leibniz held, means to act on other things. What does not act does not exist. It is difficult for the mind to grasp the idea that being is activity, for we like to think of "something" that moves and "has" the activity, like the atoms of Democritus. Even the most modern science usually speaks of an electron as a charged "particle." The status of the particle is, however, obscure. Either it does work and is through and through active; or it does no work and so is superfluous. If the particle performs no function other than to be a bearer of energy, it is otiose. How can it bear or carry energy without doing any work? How could there be a real particle anywhere that made no difference anywhere else? The particle may be a crutch to the imagination; it is only a stumbling-block to the understanding. All the work done by "matter" is energy; the particle makes no difference. Its presence adds nothing; its absence would not be noticed. Such an entity cannot be said to belong in the system of nature.

If things are what atomistic materialists make them out to be, the relations between atoms and their activities or properties is incomprehensible. An unchangeable thing could never act or serve as the basis of an explanation of unchanging qualities. The electro-magnetic theory of matter and philosophical analysis alike point to the conception that the world is a system of activity in accordance with law.

There are many indications that Leibniz was right when he suggested that this activity is of the nature of mind. The physical changes of things are in accordance with laws that can be stated mathematically. It is rational in the sense that mind can know it and mind finds order in it. It is an interacting system that organizes many elements into

rational wholes so as to realize ends, just as a mind does. A scientist, writing without any philosophical prejudices, has recently said that "atoms give one the impression of a delicacy and complexity of structure suggestive almost of the complexity of personality."[1] It has been the view of many philosophies and of most religions that the world of visible things is the expression to our mind of the activity of a Supreme Mind, so that nature is, as Berkeley says, a divine language.

It is not necessary at this point to decide whether the idealistic account of physical things be true or false. It is, however, important to remember that the case for materialism rests on the analytic method, and the case for idealism on the synoptic; and that there is much evidence for idealism. The system of things is active like a mind; changes, like a mind; is coherent and rational like a mind; and within limits mind can use it. Yet it would be over-hasty to conclude that ultimate reality is therefore a mind. Thus far only physical things have been considered, and we should take other aspects of reality into account. A synoptic view must include all the facts. Besides physical things, there are universals and values, and there are self-conscious beings. After a study of these other types of being, the question will arise, What kind of universe must this be if all these parts are to dwell together in the whole?

[1] Comstock in Comstock and Troland, *The Nature of Matter and Electricity*, p. 5.

CHAPTER V

WHAT ARE UNIVERSALS AND VALUES?

§ 1. ON ABSTRACTION

When we leave familiar physical things, rendered less familiar by the analyses of science and philosophy, and inquire into what are called universals, we have reached one of the central problems of philosophy, and one that is peculiarly forbidding to many minds. Abstract thought is not lightly to be entered on; nor is it easy to carry through. Reflection on universals carries us far into the region where what are commonly called abstractions dwell.

If the conscientious objector to abstract thinking be asked what he means by the word *abstract,* he might be sufficiently self-consistent to reply that, since a definition is an abstraction, his principles will not allow him to define any term. But his common sense will doubtless prove too much for his logic, and he will then say that an abstraction is anything that cannot be immediately perceived. Particular concrete things, like hammers, nails, automobiles, and blackboards may be perceived and referred to by every one from mechanic to millionaire; every one knows what is meant when such things are mentioned. But abstractions, like solidity considered apart from the hammer, pointedness which is not the pointedness of any one nail, but pointedness in general,—these things cannot be seen with the eye, and they confuse the average mind. Science and rational thought are, however, impossible without abstractions in this sense;

but public education does little to develop the power of abstract thinking. Philosophy shows that the mind must either think abstractly or abandon any attempt seriously to understand itself or its world. Caliban's theology applies here; "discover how, or die."

Philosophy, under the influence of Hegel, has introduced a change in the terminology that is very useful for the purposes of thought, but superficially confusing. When philosophy talks about abstract and concrete, it commonly does not mean by these terms what our discussion has just been taking them to mean. By the abstract, philosophy usually means anything taken apart from the connection in which it belongs; by the concrete, anything seen in its proper setting and in its connections with the rest of reality. For instance, a toothache considered as a present, acute pain is abstract; the same toothache, understood as an illustration of the laws of nervous substance and psychology, is concrete. When Newton saw the apple fall, the experience was merely abstract, until he began to connect the falling apple with the laws of universal gravitation. Hence, while philosophy is abstract, in the popular sense of dealing with what cannot be perceived by sense, it is the most concrete of subjects, if by concrete we mean connected and reasonably organized.

Having discussed physical things, which are concrete in the popular sense, but abstract philosophically, we shall proceed in this chapter and the next to discuss universals and values and consciousness, which are abstract in the popular sense, but philosophically more concrete.

§ 2. DEFINITION OF TERMS

By a universal (or concept) is meant a term that applies to every member of the class that it defines. It thus includes

what logic calls singular or individual terms, and general terms.[1] A singular term is one that can be applied with the same meaning to only one object. The term, "Fourth of July, 1927, at four o'clock in the morning," is a singular term, because there is only one such object; but it is a universal because the term applies to every member of the class that it defines. Usually, however, when we talk about universals we mean general terms, or their meanings; a general term is one that applies to more than one object. "Gunpowder," "man," "asteroid," "electron," and "happiness" are general terms. All general terms are universals.

A universal, then, may apply to any number of particulars in the real world, from zero and one up to an indefinite number. In the real universe there is no Humpty Dumpty, there is one Abraham Lincoln, there is an indefinite number of grains of sand; yet Humpty Dumpty, Abraham Lincoln, and grain of sand is each a universal.

Universals have certain important traits. They cannot be perceived by the senses, and so may be called supersensible or supersensuous. Even a universal like "the present governor of Ohio," defining a class with one member is supersensuous; for, though the governor may be seen, the truth that he is the only member of a class must be apprehended by an act of the mind that is neither a percept nor is capable of being perceived by the senses. Since they cannot be located in space or time, they may be called space-transcending and time-transcending. The particular objects to which the universal applies, Humpty Dumpty or the grain of sand, may of course be located at some imaginary or real "there

[1] See Robinson, *Principles of Reasoning*, pp. 20 f. A certain ambiguity in the use of the term *universal* is hardly to be avoided. Sometimes it means the word (or symbol) that embodies a concept, and sometimes it means the traits of being defined by the universal. The interest of our discussion centers in the latter.

and then" or "here and now"; but the universal "grain of sand" does not exist at any particular place or time; it is a truth or meaning always and everywhere valid of its object, whether its object be at hand or not. The universal fact that "imperial Cæsar lived" is true at all times and places, although imperial Cæsar himself be now "dead and turn'd to clay." Hence universals are often said not to exist, but to subsist; not to be located anywhere at any time, but to be valid everywhere all the time. During the world war a German philosopher derived comfort from the reflection that, although every existing thing that we prize be destroyed, the realm of subsistent universals, of truth and ideals, will remain. Whether or not this comfort be what we call "solid" is matter for reflection.

In this chapter, values, as well as universals, are to be discussed. By a value (or worth, or good) is meant whatever is desired, or enjoyed, or prized, or approved, or preferred. This, at least, will serve as a preliminary definition.

We should remember that supposed universals and values may be neither truly universal nor truly valuable. Any incorrect definition, for example, is a supposed universal that is not truly universal; and the baby crying for the moon seeks a supposed value that is not truly valuable. Yet we live and think on the assumption that there are valid universals and true values. It is the task of this chapter to test this assumption.

§ 3. WHY SHOULD UNIVERSALS AND VALUES BE STUDIED TOGETHER?

Before going on with the task just mentioned we should add a further word of preliminary explanation. In this chapter, universals and values are grouped together; yet

they are, in certain respects, different from each other. Some values are particular individuals or experiences. They are concrete, in the every-day sense of the word. Of course universals are factors in our thought about values, just as they are factors in our thought about physical things and conscious persons. But universals and values are not identical; why, then, should they be studied together? Have they anything in common?

One reason for their being grouped together is that both universals and values are clearly distinct from physical things. We have already shown that this is true of universals. It is also true of values. A physical thing may, of course, be valued; but its value is not identical with its mere existence. Much that exists ought not to; and much that does not exist ought to. Many, if not most, of the values of life are ideal objects of the mind's own texture, not material objects at all.

Universals and values are also to be distinguished from persons in any preliminary study. Persons are particular individuals; they are not what we commonly mean by universals, although they think in terms of universals. The relation of values and persons is more apparent. It may turn out that all persons are values, and that all values are "for, of, or in, a person." [1] It nevertheless remains true that to be self-conscious and to be valuable are different meanings, in spite of the fact that these meanings may turn out to apply to the same reality.

Thus we see why universals and values are grouped together. They are aspects of experience to be distinguished both from physical things and from conscious persons; yet they occupy a certain relating and mediating position between the two. They are concerned with the spaceless and

[1] T. H. Green, *Prolegomena to Ethics,* p. 210.

eternal. They function similarly in that each is a way of finding meaning both in things and in persons. Finally, each has a special affinity for conscious personality; for a person is an individual that universalizes, and an individual that, in itself, has value.

§ 4. ARE UNIVERSALS REAL?

We turn first to the study of universals. If we approach the problem from the point of view of the history of philosophy, we find one of the earliest and most persistent of questions to be: Are universals real? Plato tells us that, in the heaven above the heavens, "there abides the very being with which true knowledge is concerned; the colorless, formless, intangible essence, visible only to mind, who is the pilot of the soul." [1] Aristotle, however, brings the universals down from this lofty heaven and locates them "in the particulars that share them." [2] The debate between Plato and Aristotle was handed on to the scholastic philosophers of the Middle Ages, one party of whom said, *Universalia sunt realia,*[3] and another, *Universalia sunt nomina.*[4] The former were called realists, the latter nominalists. The realists furnished theology with a basis for doctrines of the church universal, of Adam and Christ as representing universal humanity, of the presence of the body of Christ as a real universal in the particular elements used in the sacrament (doctrine of transubstantiation). The nominalists emphasized particular facts; they encouraged the scientific investigation of nature. It would, however, be superficial to paint realism as all black and nominalism as all white. The problem concerns

[1] *Phædrus,* 247C, tr. Jowett.
[2] *Metaphysics,* I, 991a, tr. Ross.
[3] "Universals are real."
[4] "Universals are names," *i. e.,* names for properties of particulars.

more than medieval theology; it concerns the very nature and meaning of thought.

It is not hard to see why the question about the reality of universals is asked. In general, we believe that anything is real to which coherent thought refers. The world of fairies is real enough for the child's imagination; but it is not objectively real, because it contains much that is contradictory with our world of experience as a whole. Space is (in some sense) real, in so far as it is a coherent system, consistent with all my experience and thinking. Are not universals also real? Does not thought refer to universals? Are not valid universals coherent within themselves and with everything else? Are not they the very type and model of reasonableness? Is there any test of reality that universals fail to meet?

It is well to approach the problem by trying to consider the relations of the universal and the particular. In almost every mind there is a strong "common-sense" prejudice in favor of particulars. Particulars, we naturally feel, are facts; universals are pale and ghostly shadows and servants of particulars. Most of us belong to the class of the "tough-minded," in which James proudly enrolled himself. Yet we should allow neither pride nor prejudice to settle any question in philosophy; and we shall proceed, as well as we may, to an impartial study of the question.

§ 5. RELATIONS OF UNIVERSAL AND PARTICULAR

(1) THE CASE FOR NOMINALISM. Apart from popular prejudice, there is much that makes it appear that nominalism is true and that universals are merely names for qualities of particulars. Most, if not all, of our concepts are clearly based on observation of particular things. The con-

cept "blue" is utterly meaningless to a blind man and is based wholly on our experience of particular blue objects. Those more complicated universals to which we give the name "laws of nature" are also based on observation of fact. If no apples or babies or cradles ever fell down, there would be no law of falling bodies. If there were no concrete living beings, there would be no law of evolution. It would seem that the business of the general law is to tell, in what has been called "mental shorthand," how the particulars act. In so far as the law goes beyond that, it is neither useful nor true.

Nominalism calls attention to the fact that the theoretical reason is not content to stay in its place. Universals do not like to be told that they are merely brief names for a large number of particulars. They like to assert themselves as independent members of society.[1] This self-assertion of theirs has led to serious errors in thinking. Philosophers and scientists alike have often fallen prey to the tendency to treat an abstract concept or universal as a real being. When they do this, they are said to hypostatize the concept, *i. e.,* to treat it as a substance. The result has been a great deal of specious and verbal theorizing. We easily believe that the laws and forces of which science speaks are real beings; if we do not keep watch, we find ourselves conceiving of gravity as a real power of some sort that pulls or pushes bodies toward the earth: whereas gravity is only a name for the way the bodies fall. It is impossible to attach any definite meaning to gravity or to any force of which science speaks, if it be regarded as a being distinct from the particulars to which it applies.

Both on positive and negative grounds, nominalism is

[1] See Bowne's illuminating discussion of the fallacy of the universal and of abstraction, *Theory of Thought and Knowledge,* pp. 239-262.

able to argue persuasively. Positively, it urges that universals derive their meaning from particulars; and negatively, it shows that failure to recognize this fact has led to erroneous and mythological theories and explanations. But before we come to a decision, we should hear what realism has to say.

(2) THE CASE FOR REALISM. Realism appears to be diametrically opposed to nominalism. It asserts that universals are real and that particulars derive their meaning from universals.

The realist may well begin his argument by a criticism of nominalism. The latter, he admits, is plausible, but it is not so simple as first appears. If all our knowledge is of particulars, and all that universals have to say about particulars is derived from actual experience of particulars themselves, there arises a strange incoherence within our thinking. The nominalist, then, would have to say (with Hume in his most rigorous mood) that knowledge is confined to the particulars that have been experienced. If nominalism is strictly true, there is no ground for any knowledge of the future; science cannot use laws (which are universals) to predict eclipses, or tides, or sunrise and sunset, or the strain to which a given bridge may safely be subjected. It is true (as the nominalist may urge) that the laws apply to particulars; but it is not true (the realist may reply) that their truth consists in or is based wholly on the actual particulars that have been or will be experienced. A true universal applies to an indefinite number of particulars beyond all that are subject matter of actual experience. Even if all possible particulars falling under a universal had been experienced and counted, the expression of this so-called "complete induction" would not be a true universal unless it contained more than the assertion that all the actual particulars had been observed; the true universal would add the thought that all possible cases

were included, and no mere enumeration of particulars furnishes ground for such an assertion.

Putting the case briefly, we may say that strict nominalism makes all true universals and laws impossible; hence, if nominalism be true, mathematics, the natural sciences, and all reasoning, are fundamentally untrue. William James undertook to remedy this situation by suggesting that relations as well as terms are objects of immediate experience.[1] This suggestion is true enough, but it is not the desired remedy; for genuine universals cannot be made out of particular relations any better than out of particular terms. Extreme nominalism, which is logically an extension of empiricism, then, is untrue, if science or any real knowledge beyond the present moment be possible. One's whole intellectual world surely would collapse and coherence change to chaos, if one undertook seriously to deny validity to science. This result, it may be noted, is of great significance if true, for much contemporary philosophy, *e. g.*, the pragmatic movement, is essentially nominalistic.

The realist does not consider his position established merely because he can attack nominalism. He believes that he can show adequate positive reasons for his own view. It is clear, he holds, that we think in universals. We do not have a separate name for each particular thing; consistent nominalism in language would destroy thought and communication with others. Even our proper names are words that may be applied to more than one object. Many a man and many a dog has been named Julius Cæsar. Our mind is so constructed that it cannot escape from the net of universals; it cannot designate any particular fact without concepts that somehow relate this particular to something universal. "This

[1] See James, *Essays in Radical Empiricism,* Ch. III on "The Thing and its Relations."

pain that I feel" is excruciatingly particular; but every word I use has been used before and in some sense is a universal. "Pain?" Yes; this word relates my pain to the properties of pain in general. "I?" Yes; for the pronoun designates a member of the class of "selves."

Further, say some realists, if you analyze the particular, you come upon the universal. Our analysis of matter, for example, came to electrons and protons; the photograph of your beloved may appear very particularly individual to your eye; but that photograph is entirely made up of electrons and protons. An electron is very nearly a universal; all electrons are alike, have the same properties, embody the electronic law. Carry the analysis further, and the space occupied by the electron is found to be made up of mathematical points. A point is a true universal, a "neutral entity," says the new realist; and the world of being is made up of such universals.

This neo-realistic account is too extreme for many; it wipes out too completely the distinction between universal and particular. But, even if it be rejected, the realist may assert that science, rendered impossible by nominalism, becomes possible if realism be accepted. If there are genuine universals, the universe is rational; as some one has said, it is "put together mind-wise." This consideration may be, and often has been, made one of the bases for an idealistic world view,—*i. e.*, the belief that mind is the fundamental reality in the universe. It would be difficult to show that this argument has no force.

Nevertheless after all this and much more has been said for realism, the ordinary mind revolts from the realistic conclusion and finds some allies among the philosophers. This may be called the revolt of common sense. The leaders of the revolt would admit the plausibility of the argument for

the reality of universals, but might remind the philosopher that it is his business to interpret experience, not to juggle concepts. However smooth be the way to realism, he might continue, real experience is bumpy with particulars. The obstinate facts that we meet are definite and concrete. Our theories must fit the facts or be false; one fact, be it ever so humble, may ruin theories held for centuries; one particular may undermine the loftiest universal.

Further, the leaders of the revolt may add, it is sheer nonsense to talk about the reality of universals. Pain I know; but always as particular pain,—backache, stomach-ache, toothache. But pain in general,—what is it? Pain universal, that is no one's, anywhere, at any time! To suppose such pain real is to contradict the very nature of pain. The same objections may be urged against the reality of universal bread, universal apple, or universal goodness. It is impossible for the mind to conceive the reality of an abstract universal, apart from all particulars. The universal can mean only the actual or possible particulars; apart from them, it is nothing.

(3) A SYNTHETIC VIEW. It appears from the discussion thus far that the realist can refute the nominalist and the nominalist the realist. It also appears that each can prove his own point. If this appearance were the last word, reason would have to surrender to unreason, and we should have to say that experience was at this point contradictory and meaningless. Is there no way out?

We may take our starting point from the last argument urged by "the revolt of common sense." Universals apart from particulars are, we may admit, nonsense. The nonsense can be avoided only by regarding the universal as a kind of particular. Hence, we may safely agree with Aristotle that the universal is to be found in the particular, not apart

from it. If we are trying to answer the question of metaphysics, our problem would then assume the form: Is there, in reality, a particular that can be coherently conceived as containing or expressing a universal? Physical things are merely particulars. Universal laws may be true of things, but these laws are mere descriptions of the way particular things act. Universals seem to be forced into a realm apart and to have no place in things. What we need is a particular that is more than particular; and a universal that is not isolated from the particulars. In other words, if our thought is to be coherent, we need what the Hegelians call a "concrete universal"; a universal that is the meaning and soul of the particulars; a particular that is universalizing.

If we consider what the evolutionary process is, we shall discover a clew to our problem. According to the hypotheses commonly regarded by men of science as reasonably verified, the history of the material universe may be traced from a state when all was "star-dust," or nebulous matter, through the process of the formation of solar systems,—and the age-long development of life, of consciousness, of reason and conscience.[1] The point significant for our problem is that the process of evolution is striving in precisely the same direction as is our problem of the universal and the particular. The "star-dust" is relatively homogeneous, like universals; it is not particularized. Then as evolution progresses nature appears to strive to embody universal laws in more concrete particulars; as world-time advances the particular becomes more important. One molecule of star-dust, or one electron is just like another; but our sun is not just like Betelgeuse, nor the earth like Mars; on the earth, as life develops, the

[1] See Thomson, *The Outline of Science;* Bergson, *Creative Evolution;* Morgan, *Emergent Evolution;* Hoernlé, *Matter, Life, Mind and God;* and Alexander, *Space, Time and Deity.*

difference between one amœba and another is less significant than the difference between one ant and another; as we mount the scale, individuality becomes more and more important. The shepherd "knoweth his sheep by name"; and every human individual acquires, in the eyes of the more noble members of the race, an intrinsic value. Nature seems to be saying to us: "I act in accordance with universals, but I do not fully express what I mean until I have shown you how universals are embodied in individual personal consciousness."

If we take nature's hint, we shall be inclined to look on mind, the latest "emergent" of the evolutionary process, as a possible solution of our problem. Personal rational consciousness is indeed a universalizing particular; that is, mind is a concrete individual, one function of which is to grasp the meaning of universals.

It is necessary to examine the foregoing suggestion carefully in order to determine how much it amounts to in helping us out of our difficulties. About one fact there can be no doubt, namely, that a mind can pick out certain factors from particulars and build up abstract universals which are relative to the particulars. If our minds were wholly confined to particulars, no thinking could take place; we should be clogged with facts, and interpretation would be impossible. But we may go further and show that a mind can also think in universals that genuinely express its own essence or the essence of reality, or both. The first kind of universal is illustrated when I say, "This snake is green." "Green" is a universal of sense, abstracted from particulars and relative to them. The second kind is illustrated when I say, "Truth is coherent" or "The sum of the angles of a triangle equals two right angles." In the latter instance I am saying something universal that is not derived from observation of par-

ticulars, but from the universal structure of thought. Mind, then, by its very structure, has to recognize the truth of some universals as independent of particulars. It is the nature of mind to be capable of thinking in terms of universals.

This conclusion, however, does not solve the problem about the objects to which our concepts refer. It tells us that mind universalizes; indeed, that, so far as we know, mind is the only reality that can universalize; but it does not enlighten us about the nature of the real world which minds are describing with their universals.

(4) Metaphysical Outcomes. The real world must be such as to include and explain these facts about universals and particulars. As a result of our discussion we are prepared to state and examine briefly the outstanding types of metaphysical theory that try to account for these facts.

(a) *Atomism.* The simon-pure nominalist analyzes his universals into particulars, and the name "atom" is given to the most particular particulars that cannot be further analyzed. As we found in Chapter IV, atomism has taken both materialistic and idealistic forms. Materialistic atomism says that the ultimate particulars are solid physical objects, occupying space (Democritus); psychological atomism says that the ultimate (knowable) particulars are states of consciousness, probably sensations (Hume). Atomistic views fail because they are incapable of including or explaining the universalizing function of mind.

(b) *Platonic Realism.*[1] Platonic, or medieval, realism holds that universals are real apart from all particulars. In American neo-realism there is an interesting fusion of atomism with Platonic realism, in which, however, the realistic element has the upper hand. These views suffer from two

[1] The term "Platonic" does not intend to commit Plato himself to this view; it is, however, the common interpretation of Plato.

defects; first, the unintelligibility of universals apart from all particulars and all minds; and, secondly, the fact that they do not do justice by the particulars.

(c) *Personalism.*[1] There remains the view which suggests, as a solution to this problem and indeed to the other antinomies of thought, that the whole universe is personal; it is made up of a mind or minds and their experiences. This view, in one form or another, has been held by many thinkers of the past and present, such as Malebranche, Berkeley, Leibniz, Fichte, Hegel, Lotze, T. H. Green, James Ward, McTaggart, Eucken, Royce, Miss Calkins, Ladd, Bowne, Richardson, and others. It is, of course, not to be accepted because it has been widely held; only if it is the most reasonable and coherent account of the facts are we bound to regard it as true. Atomism makes reality granular, crummy, disjointed, with no real connections and laws; Platonic realism makes reality organic, connected and rational, but unfortunately provides no place for any particular facts or events. Personalism finds room both for particular facts and for universals; for it is the nature of mind to be an individual that universalizes. Mind experiences particulars and relates them to laws. If all that is—physical things, universals and particulars and values—be of the nature of mind, it is then possible that universals are true of reality; for they refer to other mind or minds functioning rationally as mine functions, yet also individual as

[1] The term *personalism* will be objected to in this connection by some idealists. If it be remembered, however, that sensationalistic idealism is provided for under atomism, and certain interpretations of absolute idealism under Platonic realism, it will be seen that personalistic idealism is the only general type not previously discussed. It is interesting to note that an absolute idealist like Bosanquet not infrequently expresses himself in personalistic language, as when he says, "A feeling mind is necessary to individuality," *Logic,* Vol. 2, p. 199 a. The term *personalism* is preferred to the older, but unfortunately ambiguous, *spiritualism.*

mine is. Universals then are real; but they are real only in and for particular minds. This result, important as it is, must be held tentatively until we have examined both values and persons. We turn at once to the study of value.

§ 6. PROBLEMS ABOUT VALUE (AXIOLOGY)

Ever since man began to think he has been concerned about the question, What is truly good or valuable? The whole history of ethics has been a continuous study of the problem; it has occupied a central place in the thinking of men like Plato and St. Augustine, Spinoza, Kant, and Fichte. It is not until relatively recent years, however, that the study of the theory of value (or axiology, as it is called) has come to the foreground of philosophical attention as a distinct problem. In the 1870's and 1880's, under the influence of such diverse minds as Lotze, Ritschl, Nietzsche, and students of economics, men began to think more explicitly about values. Meinong's work from 1894 on, followed by that of Ehrenfels (1897-98) and others, stimulated psychological interest. Höffding's *Philosophy of Religion* (tr. 1906) called new attention to the relations of value and religion. In 1909, Urban's *Valuation* and Münsterberg's *Eternal Values* were published. From that time on, a vast amount of work has been done. In addition to those mentioned, Windelband, Rickert, Scheler, Stern, and others are conspicuous in Germany; in Great Britain Moore, Schiller, Pringle-Pattison, Sorley, and Bosanquet; in Italy, Croce; in the United States, Hocking, G. P. Adams, Dewey, Perry, Spaulding, Wells, and Picard. Indeed, one would have to call a fairly complete roll of contemporary philosophers to exhaust the list of students of axiology.

It is evident that the problem of value is both important

and difficult. Some of the questions that require answering are the following: What goes on in consciousness when we value anything (psychology of valuation)? What are the values of life, and how are they to be classified? How may we determine what is the most valuable end for human living (*i. e.,* what is the standard of value?)? What is the relation between values (what ought to be) and existence (what is)? Are values merely subjective—satisfying subjective desire or need, or are values objective—in some sense other than my desire and giving law and standard to it? What is the relation between value and personality?—Are values independent of persons, or do they exist only in and for persons? No more than a brief discussion of these problems is possible within the limits of this chapter.

§ 7. PSYCHOLOGY OF VALUATION

In the main, psychological accounts of valuation may be classified as hedonistic, voluntaristic, formalistic, and synoptic.

(1) HEDONISTIC THEORIES. From Aristippus and Epicurus to Bentham and Meinong, there have always been men who have argued that we assign value to what pleases us; value and pleasure are, they hold, identical. Whatever words we may use,—good, value, satisfaction, approval, preference—all reduce to pleasure, say hedonists. That this analysis is not wholly adequate is evident from the fact that some pleasures (such as pleasure in the suffering of another) are bad; and that our pleasures depend on our ideals, so that we discriminate between good and bad pleasures, and can learn to find pleasure in what conforms to the ideal.

(2) VOLUNTARISTIC THEORIES. From Aristotle and Spinoza to Ehrenfels and modern pragmatism there have been

representatives of the voluntaristic view. Voluntarism holds that value is not the mere feeling of pleasure, but is whatever satisfies desire or fulfills purpose. This view, however, usually admits that pleasure (or happiness) is associated with the realization of desire and is not so radically opposed to hedonism as first appears. The voluntaristic account is regarded as inadequate by its critics on the ground that many desires clearly ought not to be fulfilled, and that value is experienced in their frustration rather than in their realization; and that some value (such as esthetic) has nothing to do with desire.

(3) Formalistic Theories. From the Cynics and Stoics to Kant and Royce there have been men who found true value only in a rational will. This theory is called rationalism, rigorism, or formalism. In a sense formalism is voluntaristic, for it holds that value resides in will only. But it differs from voluntarism in that it denies that all fulfillment of desire is valuable; it holds that only the attitude of a rational and self-consistent will is truly valuable. All other value is relative to this. Loyalty to the obligation to be rational is the one and only value for formalism.

Each of the three theories thus far mentioned has, it is generally agreed, some element of truth in it; we value pleasure, and values usually please or satisfy; we usually regard what fulfills our desires as valuable; and our intellectual conscience refuses to view any experience as truly valuable if it expresses self-contradictory attitudes of will. Yet each theory is one-sided and partial: hedonism attaches worth to feeling alone; voluntarism to realization of desire alone; formalism to rational will alone. Each neglects or underemphasizes actual aspects of the experience of value in its special interest in one aspect.

(4) Synoptic Theories. The theories called synoptic

try to do justice by all the facts of value experience. Such theories recognize the presence of hedonic, volitional, and intellectual factors in valuation, but hold that pleasure and desire and obligation are all organized and interpreted by an ideal that the mind forms, whereby pleasures and desires are judged as good or bad. This ideal is fundamentally an ideal of personality,[1]—a conception of the kind of person that one approves and ought to become. It is made up by the organization and synthesis of other ideals,—of truth, character, beauty, and the like. The ideal-forming function of the mind has had a long development from the earliest and most primitive to the most highly developed types. For this theory, however, the important thing is not to be able to draw a definite and final map of the ideal that is beyond all possibility of further development; the important thing is that man, from the dawn of history, is a builder of synoptic ideals, capable of organizing his whole life around a conception of what he ought to be.

§ 8. WHAT DO WE VALUE?

If philosophy be an interpretation of experience as a whole, it is of philosophical importance to answer the question, What do we value? For philosophy wishes to discover, if possible, whether value be a mere incident in the universe or a part of the very structure of reality.

The question may be answered in two different ways. On the one hand, it may be held that we value only conscious experience. The value of a painting consists (according to one's psychological theory) in the pleasure it gives, or in the extent to which it realizes one's desire, or in its relation to the fulfillment of obligation, or in its contribution to the

[1] T. H. Green, Dürr, Bowne, and others, have emphasized this ideal.

realization of my ideal of beauty in personal life; in any event, its value consists in a conscious experience.

On the other hand, it may be said that everything in the universe, conscious or unconscious, real or imaginary, has been or might be valued. In ordinary language we speak of valuing a Sistine Madonna or a friend; a good play or a landscape; mathematics or *Alice in Wonderland*.

Little consideration is needed to show that the two points of view are less diverse than appears. It is not the Sistine Madonna, as an ordered collection of protons and electrons, that we value; it is rather its effect on a mind or the attitude of a mind toward it that constitutes its value. The significant fact for us, however, is that for some mind and from some point of view, it is conceivable, if not certain, that every fact in the universe may be valued.

§ 9. WHAT IS THE STANDARD OF VALUE?

It is one of the commonest facts of experience that we must choose among values; we cannot realize all values at the same time. If we choose one value in preference to another, what is the ground of our choice? Are there some values that are always and everywhere better than others? Is there any principle whereby values may be arranged in a scale of worth?

Such questions, whatever their practical and theoretical importance, are difficult to answer. It is evident, in the first place, that the answer depends largely on our psychological account of what valuation is. If values are pleasures, the standard of value is the amount of pleasure; but this standard is evanescent, because what pleases to-day may disgust to-morrow; what charms me may repel you. If values are satisfactions of desire, the standard is the strength of the

desire; but this sounds perplexingly like "might makes right," and leaves the mind dissatisfied. If the only true value be obedience to the obligations of a rational will, the range of value seems to have been intolerably narrowed. If value be the realization of our ideal of personality, we have what is obviously a developing standard. It may be that such a standard is the only kind that will suit the nature of developing beings like ourselves.

Of one point regarding the standard of value, we may be reasonably certain. Whatever is truly valuable must conform to the criterion of truth, *i. e.,* it must be coherent within itself and in its relations to other truth. This warrants us in formulating a working criterion or standard somewhat as follows: that value is, in any given situation, the highest which contributes most to the coherent functioning and organization of experience as a whole. One is never certain about the greatest good in any situation until one has taken everything into account; and even then one may discover that two or more courses of action or appreciation are equally valuable. If one arrive at this conclusion, there is no standard of value that could guide one's choice.

§ 10. CLASSIFICATION OF VALUES

It is useful to consider how values may be classified,[1] provided not too much significance be attached to the classification.

(1) INTRINSIC AND INSTRUMENTAL. Intrinsic values are those that we prize for their own sake. Instrumental values are whatever causes or leads to intrinsic values.

[1] This discussion owes much to Sorley, *Moral Values and the Idea of God,* pp. 36-50.

Beauty, knowledge, friendship, character, and even play are instances of intrinsic values. Money is exclusively instrumental. It is interesting to note that intrinsic values are also instrumental; what we prize for its own sake also causes further intrinsic value.

(2) PERMANENT AND TRANSIENT. Some values are by their very nature transient; others are such that they may be permanent elements in experience. Few would deny that good health is a value; yet in the nature of the case it is transient; and the instrumental values of wealth too easily take wings. Yet there are permanent values; nothing, save my own disloyalty, need ever separate me from truth and goodness, beauty and religion.

(3) CATHOLIC AND EXCLUSIVE. Some values are such that if one person possesses them, all others are excluded from their possession; these values are called exclusive. Such are all values that depend on the possession of material things. Other values are such that they may be shared by all; such, indeed, that the possession of them by one person makes it easier for others to possess them. These are called catholic (or universal) values. It is significant that the same values that we found to be permanent are also catholic.

(4) HIGHER AND LOWER. Among the intrinsic values there is a distinction generally made between the higher and the lower. A little reflection shows that this cannot mean that in every situation the "higher" are to be preferred to the "lower"; for the development of all sides of experience, the maintenance of life as a whole, means that we must often choose humble tasks and lowly values if the whole is to grow in right proportion. At times good health is more valuable than knowledge, and provender more needed than prayer.

Roughly, however, the intrinsic values may be classified as follows:[1]

Lower intrinsic values.

Recreational (play).
Bodily (health).
Social (association).

Higher intrinsic values.

Intellectual (knowledge, truth).
Esthetic (beauty).
Character (goodness).
Religious (holiness).

There will be difference of opinion about the order in each group. Probably the point to which chief objection will be raised is the placing of "social" values in the lower group. Is not friendship, association with our kind, worth more, one may ask, than mere intellect or mere honesty? The reason for placing social values relatively low in the scale is that the value of association is dependent on the presence of the higher values. It is questionable whether there is any intrinsic value whatever in social relations from which truth, beauty, goodness, and religion are lacking. At any rate, mere association, mere coöperation or personal loyalty, without regard to the value of what is being realized through association, has very meager value.

The ground for the grouping into higher and lower is found in the extent of the contribution made by each value to the coherent whole of life. Recreation contributes something to the whole of life; imparts to it a glow that makes the rest of our living saner and happier. But the contri-

[1] For an illuminating "table of values" and exposition see Everett's *Moral Values,* chapter on "The World of Values," by which the discussion in the text is influenced. Our table is confined to intrinsic values; instrumental values are obviously relative to the intrinsic values that they subserve.

bution made by recreation does not compare in range, in complexity and in potential future development with the contributions made by the true or the beautiful or the good.

§ II. INTERPENETRATION OF THE VALUES

There is no intrinsic value that stands alone.[1] Realization of all the other values is dependent on character values; the cheat destroys fun or truth, beauty or religion. Attempt, if you will, to define any one value as utterly alone and apart from all the others. What value can stand without truth? What value is completely defined if its esthetic aspects are omitted? What is the value of religion when the good, the true, and the beautiful have been removed from it?

The values, then, interpenetrate. No values can be fully appreciated without taking all other values,—indeed, the whole personal consciousness, into account. Since every person is a member of society, we must go further and take the entire society into account. But since society itself is dependent on the world in which it lives, and since value experiences arise through interaction between society and its environment, we must take all reality into account. In other words, our values can only be understood and must always be interpreted and criticized in the light of our world-view. No one has the right, rationally speaking, to say, "This is of value," unless he has related it to everything he knows. Thus the study of value drives us on to metaphysics. If we wish to think truly about value, we must seek to think truly about reality as a whole. Our human values not only interpenetrate each other, but value and all reality also mutually interpenetrate.

[1] See Everett, *Moral Values*, p. 183. The principle of interpenetration has been emphasized most frequently by the absolute idealists.

§ 12. VALUE AND EXISTENCE

Values are sometimes spoken of as though they were mere abstract universals or ideals. We have called beauty, for instance, a value; and the word *beauty* is an abstraction. Some speak as though the ideal were what had value. Yet critical reflection shows us that we never mean to ascribe value to an ideal apart from any realization of it. Ideals may have very high instrumental value; if I hitch my wagon to a star, I may rise somewhat. But the mere ideal, the star to which no wagon is hitched, twinkles too feebly to be of any value. Ideals, mere schemes or programs of possible value, are of no worth; only the actual realization of value in character or knowledge or beauty is of value.

A relation between value and existence has been recognized by many thinkers. Hegel has only scorn for those who pin their faith to an ideal that is not actual. Meinong points out that all value judgments involve at least the *Annahme* (assumption or supposal) of the existence of the value in question. "It is only as existing," says Sorley, "that the thing is held to be good." [1]

Whenever, then, we talk about values, we talk about the real world. No realm of ideal fancy or abstract validity is meant when we speak of the value of beauty and truth; we mean that real beauty and known truth ought to exist; that they have a rightful and obligatory place in the realm of being. Thus, again, the study of value drives us to metaphysics. We must ask the question, What is the status of values in reality?

[1] *Moral Values and the Idea of God,* p. 82.

§ 13. ARE VALUES SUBJECTIVE OR OBJECTIVE?

The question about the status of values in reality is often put in the form, Are values subjective or objective? This question is one of the "persistent problems of philosophy," one that has engaged the greatest intellects from Plato and Aristotle to Kant and Hegel, and is still being hotly debated. Thinkers who agree on many other points, disagree about this fundamental question. Are values simply and solely relative to human desires and pleasures, customs and institutions; or are they in some way permanent, objective aspects of the universe?

(1) Definition of Terms. The terms *objective* and *subjective* are unfortunate on account of their ambiguity. It would, however, be still more unfortunate to attempt to introduce a new terminology. We shall therefore hold to the current usage.

The belief that values are merely subjective may take an individualistic or a social form. Individualistic subjectivism is the belief that value is wholly relative to the private feelings of the individual. For this view, no value can claim any meaning beyond the "I enjoy it" of egoistic hedonism or the "I desire it" of egoistic voluntarism. Nothing more than the feeling of the moment is recognized as entering into the value experience. This view, taken seriously, does violence to the possibility of any coherent evaluation; for all such evaluation implies that the experiences of the moment must be judged by some coherent ideal.

The belief that values are socially shared, socially evolved, and are wholly dependent on changing industrial, political, and cultural conditions may be called social subjectivism (or social solipsism in the field of values). On this view, values have a certain objective status relative to the individual. He

finds values given to him in his education and the institutions with which he is identified. But the social subjectivist is still a subjectivist. He holds that value is wholly relative to human conditions. He finds nothing universal, or permanent, or genuinely objective about values. He acknowledges no eternal values. For him, values are no product of the nature of things; they are the product only of social needs and change as social conditions change.

What is meant by objectivism, the belief in the objectivity of values, is more difficult to define. Broadly speaking, everything that may be thought about, no matter how subjective it be, is an object; and the subjectivist (social or individual) may therefore lay claim to belief in objectivity. Yet the belief in objectivity intends to assert more than the subjectivist will grant. The "more" consists of at least two assertions: (a) that an objective value is one that all minds that think reasonably ought to acknowledge (logical objectivity); and (b) that it is valid not only for human individuals and groups, but for the universe, the reality on which man depends and in harmony with which he lives (metaphysical objectivity).

For example, the beauty of a sunset is for the individualistic subjectivist merely a matter of whether he likes it or not; if he likes it, well and good, it is beautiful for him; if he doesn't like it, there's no arguing about taste, and no poet has a right to exclaim,

> "For this, for everything we are out of tune;
> It moves us not.—Great God! I'd rather be
> A pagan suckled in a creed outworn. . . ."

Much contemporary literature and literary criticism is plainly written by men and women whom Wordsworth might rank as sub-pagan!

For the social subjectivist, the beauty of the sunset is a social convention; perhaps merely arbitrary (akin to the beauty of the dress suit of the male of the species), so that Cimmerian darkness might have been voted just as beautiful as a sunset, if the shamans of B. C. 100,000 had so ruled; or perhaps decreed by a majority vote of the individual subjectivists, so that the minority is either overruled or shamed into acquiescence; or caused by the discovery that calling a sunset beautiful makes the group healthy, wealthy, and wise. All value thus becomes purely a function of the group.

Now, the objectivist quarrels with every shade of subjectivism. He admits, of course, that the value experience is, in a sense, subjective, both individually and socially; but he will not admit that the meaning of value is exhausted by the subjective experience. He says that the sunset is really beautiful; and that if I do not enjoy it, I ought to learn to enjoy it. He holds that if I am true to the principles of sound thinking, which reveal coherence and harmony as the root principle of mind, I shall find myself under obligation to acknowledge true beauty; I fail to acknowledge it only when I do not see it clearly or do not understand my own mind clearly. He may add that, since coherence is the criterion of truth, it follows that what coherence commands us to regard as beautiful really is beautiful for the universe as well as for the human mind. Wordsworth expressed this conception of the objectivity of value when, in his ode, "Composed upon an Evening of extraordinary Splendour and Beauty," he wrote,

> "From worlds not quickened by the sun,
> A portion of the gift is won;
> An intermingling of Heaven's pomp is spread
> On ground which British shepherds tread!"

All who believe that there are eternal values (Münsterberg), whether as impersonal entities (Platonists, Spaulding), or significant structures (Adams), or as some quality or attribute of the universe as a whole (Spinoza, Hegel, Alexander, pantheists), or as norms in the mind of God (deists, theists, personalists), hold to the metaphysical objectivity of value.

(2) Subjectivistic Criticisms of Objectivism. The first thinker to give serious attention to the metaphysics of value was Plato. He was an objectivist. It may be said that, on the whole, belief in objectivity of value (although not under that name) has been the predominant tradition in the history of philosophy. But from time to time, and particularly of late, there have been vigorous protests against objectivism, and these protests will now be presented.

Attention is called to the fact that actual valuations are different at different times and places. There is hardly a crime that has not somewhere been considered a good and even a holy act; hardly a noble ideal that has not somewhere been despised. The study of anthropology, of the evolution of morals, of sociology and social psychology has led many to agree with Westermarck's position that moral value is purely a matter of subjective feeling that varies as conditions vary. The standards of 2000 B. C. and 2000 A. D. (whatever the latter may be) cannot both be valid; for all we know, both may be false. All standards change, evolution goes on, no value is permanent or objective or eternal.

The objectivist acknowledges the facts of change and moral evolution; but he believes that the subjectivist draws unwarranted conclusions from them. Of course, the objectivist would say, our apprehension of value changes, our standards evolve; but this does not prove that there is no objective value. As I walk toward Boston, the Customs House tower looms higher and clearer; do my changing

views of the tower prove that there is no tower? Likewise, our conception of true value changes; the view gradually (we hope) improves; but it cannot be inferred from the improvement, or from frequent obscurations of vision, that there is no true value.

Further, the objectivist urges, every serious subjectivist will concede that at least one value is objective, namely, the value of truth. Knowledge has had as many vicissitudes as has beauty; the savage and the modern moron are as prone to resist truth as they are to resist goodness; nay, even the wisest have erred regarding truth. Does this mean that there is no truth? We have already (Chapter III) seen the defects of skepticism. Subjectivism is founded on knowledge of facts derived from sciences such as anthropology, sociology and others; but if all values are subjective, these sciences are subjective too, and their results are no more to be trusted than are moral standards or standards of taste and beauty.

There is, of course, some truth in the subjectivists' contentions. They appeal to undoubted facts. Further, there is no question but that many valuations are subjective, just as many opinions about evolution or what happened yesterday are subjective. But these facts are insufficient to prove that all values, or all opinions, are subjective. They prove only that it is important and difficult to distinguish between the subjective and the objective. Subjectivism represents the surrender of thought in the presence of great difficulty; objectivism confronts the same difficulty but keeps up the fight toward truth about reality.

Subjectivists urge that the psychological nature of value is such as to preclude its objectivity. Value, they say, is dependent on desire and consists in the fulfillment of desire. Hence, value, for two reasons, cannot be objective: first, it

has no meaning apart from fulfilled desire, which is a subjective experience; and secondly, our desires are notoriously indifferent to what is objectively true; we desire the unattainable, the unreal, the impossible.

To this argument, the objectivist may reply, first of all, that it rests on a false psychology of value. True value, he might say, is not fulfillment of any and every desire, but such fulfillment as conforms to norms or ideals implicit in the rational structure of mind. If, however, he should not care to rest his case here, he might go on as before to show internal inconsistency in the position of the subjectivist. If fulfilled desire cannot interpret objective truth about the cosmos, we are again reduced to skepticism; for the desire for truth is itself a desire. If fulfilled desire cannot express objective truth, then all truth, including truth about the subjectivist theory, is impossible. Plato was more nearly right than modern subjectivists when he taught that desire (which he called Love) "interprets between gods and men . . . ; he is the mediator who spans the chasm which divides them." [1] Desire (of the right sort), far from making objectivity impossible, is the necessary condition of truth-finding.

Many recent writers, such as Dewey and Robinson in America, and Müller-Freienfels in Germany, think that belief in the objectivity of values is only an attempt to sanction the standards of dominant social institutions. It is (they hold) a device of conservatism to ensure the perpetual recognition of what has been believed and practiced, and so to prevent progress. Men talk about eternal justice in order to support the law courts; about the divine right of kings in order to perpetuate monarchy; about God in order to guarantee ecclesiastical institutions; about the golden streets

[1] Plato, *Symp.*, 202E, tr. Jowett.

and pearly gates of heaven in order to express (among other things) current economic evaluations of gold and pearls. Many high-minded social reformers, repelled by debased uses to which metaphysics has been put, revolt against all metaphysics and welcome a view that leaves them free to change the earth for the better without stumbling against the unchangeabilities of a heavenly order.

The trouble with this social explanation of values is that it is not thorough-going enough. If eternal justice is not objective because it supports the law-courts; and God is not objective because he supports the church, we shall then have to go further and concede that science is not objective because it supports the universities, the learned societies, and the book publishers. The subjectivist case derives its apparent force from appeal to selected instances. Doubtless subjectivism is right in holding that some pretended objective values are socially useful fictions that are not genuinely objective; but this argument cannot be made the basis for the denial of all objectivity without involving all thought, all truth, in universal ruin.

An objection of a different type appears frequently in recent literature. If value be objective, it is said, then it is already real; the universe is already perfect. What, then, is the incentive to progress? Why seek to perfect perfection, to paint the lily? Thus, these critics say, the objectivity of value arrives at a self-contradiction: it is based (in part) on moral experience, yet its metaphysics makes an essential aspect of moral experience meaningless.

This is probably the most serious objection that has been raised. It is valid against certain objectivistic theories. It refutes successfully any view which holds that existing reality is forever statically perfect. But while certain formulations of absolute idealism have apparently maintained this

position, it is by no means evident that all belief in the objectivity of value implies that the universe is already perfect. Perhaps the very objectivity of value may consist (in part) in the fact that the universe is indefinitely perfectible; perhaps it is true that there are valid norms that ought to be attained by finite beings, yet are unattainable in finite time. If this be the case, and the perfectibility of the universe is something inexhaustible, then the objectivity of value is the greatest possible stimulus to progress. The possibility of this solution does not prove its truth; but it does destroy the cogency of the subjectivist attack at this point.

The values of human experience, some subjectivists say, cannot be objective and eternal because "man's place in the cosmos" is temporary and precarious. He is a recent product of evolution, destined to endure for a few seconds of cosmic time on a tiny speck in the universe called the earth, and then to vanish, leaving no trace of his civilization, his victories and defeats, save the continued motion, in other relations, of the electrons and protons that constituted the bodies of the human race.

This consideration makes a powerful appeal to the imagination and emotions; but its logical force is another matter. True it probably is as an account of man's physical being; but is it true as a final interpretation of man's place in the cosmos as a whole? If materialism be true, most human values are not objective; yet even materialism is based on the assumption that the reason of man, tiny and evanescent as he is, can correctly describe the truth about the universe. The present *Introduction* elsewhere sets forth reasons for believing that materialism is not true, and that man's physical relations do not completely describe him or the universe in which he lives.

Finally, subjectivists hold that values are not objective

because sense experience reveals no objective value. For the objectivist's reply to this criticism the reader is referred to the discussion of sensation as criterion of truth in Chapter II.

(3) Arguments for Objectivism. The foregoing discussion has already implicitly or explicitly treated much of what may be said for or against the truth of the belief in the objectivity of values. There are, however, certain additional positive considerations that should be mentioned; and certain points should be made clearer.

First, we should note the significant fact that value judgments claim objectivity as truly as do our sense perceptions. When I perceive a cat, my perception does not mean merely that a psychological process is going on in my mind; it means that I am seeing or hearing a real cat,—or at least believe that a real cat is the object of my perception. Likewise, when I judge that it is wrong to steal or that the Matterhorn is sublime, I do not mean that I have certain feelings or satisfied desires; I am referring to what I believe is a fact, beyond my psychological apprehension of it. My sense-perceptions may be erroneous, and are subject to the criticisms that thought passes on all experience; illusions and hallucinations exist and may be corrected by reasonable reflection. Likewise our judgments or perceptions of value may be erroneous; they, too, need criticism and organization. Particular judgments of truth-value must be corrected by the standards of logic; of beauty-value, by the standards of esthetics; of goodness-value, by the standards of ethics; and of religion-value by the standards of philosophy of religion. The presence of erroneous value judgments in experience (which is a common and obvious fact) no more destroys the objectivity of value than the presence of illusions destroys the objectivity of the world of nature.

The subjectivist cannot deny this fact of objective reference in the value judgment; he can only defend his position by showing, if possible, that the whole supposed system of objective values is either meaningless or inconsistent within itself or with certain aspects of experience or established truth. If he cannot do this, he has failed to refute value objectivism.

If truth be a value, the objectivist goes on to say, at least one value is objective, in both the logical and the metaphysical senses. Truth is the model of what we mean by objectivity; and is also (one would suppose) one of the most highly prized of values, if not the highest of all.

This argument is met by the subjectivist in subtle fashion. He contends that truth as such is not a value; truth is simply what is valid about the state of affairs in the universe. If there were no minds, it would be true that there were no minds; but there would be no value in this truth nor in any other under those conditions; for value consists in some relation to the experience of conscious beings. Truth, then, says the subjectivist, is in itself of no value; only known truth, or the appreciation of truth, is valuable.

This objection is, however, more subtle than cogent; for the objectivist might be perfectly willing to grant that truth that is known to no mind is of no value. Known truth, at least, is valuable; and if an idealistic or personalistic metaphysics could be established all truth would be known truth. The Supreme Mind would know all truth, and in this knowledge of truth by God would reside the objectivity of the value of truth.

There remains an important defense of objectivism in the nature of the criterion of truth. Our ground for asserting the objectivity of the world of nature (in whatever sense it may be objective) is solely the fact that the hypothesis of

a real world, valid knowledge of which is common to all thinking minds, is the most coherent way of interpreting our sense experiences of nature and of communication with other persons. Likewise,[1] our ground for asserting the objectivity of the realm of value in reality is the fact that our value judgments can be organized into a system that is most coherent when we interpret value as an objective claim that reality makes, rather than as our merely subjective demand for pleasure or satisfaction.

This position grants to the subjectivist that our reasons for asserting a real world have their roots in our own being; but insists that neither our perceptions of physical nature nor our perceptions of value are merely subjective. Both point to a reality beyond us; both reveal objective truth.

In reply to the objectivist argument at this point, the subjectivist may say that there is a very great difference in the kinds of coherence attainable in our knowledge of nature and in our knowledge of values. The former is mathematically exact, and is constantly becoming fuller and more precise; predictions made by physicists and astronomers are fulfilled. The latter is neither mathematical nor precise; there is difference of opinion not alone about the canons of esthetics, and the values of religion, but even about the principles of moral value. It cannot be said that the dwelling-place of values is so coherent and ordered a mansion as is the home of Mother Nature.

This objection is serious, but not fatal. It depends in part on taking mathematical law and predictability as the ideal model of coherence. There is, of course, something not merely neat and satisfactory, but also intellectually compelling about a mathematical formula and its applications

[1] The logical identity of the criterion in the two fields is emphasized by Sorley.

to nature; but philosophy is an interpretation of experience as a whole, not merely of the neatly mathematical aspects of it. Is it not true that there are aspects of experience that mathematics and physics have never undertaken to deal with? The statement that the most important task of religion is "to develop the consciences, the ideals, and the aspirations of mankind," and that religion and science are not "irreconcilable and antagonistic domains of thought," but that each supplements the other and each is necessary to the human race is not a prejudiced utterance of some propagandist, but the mature judgment of an important group of the leaders of American science and religion.[1] The authority of great names is no argument in philosophy; but it is not unimportant that men who are most familiar with the methods of the exact sciences are able to report that they recognize the realm of values. Our knowledge of values is not, and probably never will be, mathematical. Our experience of values is none the less real and none the less important. The task of interpreting values is difficult; but shall that difficulty lead us to accept subjectivism?

In short, which is more coherent: to assert that there are objective standards, although our knowledge of them is only approximate; or to assert that really there are no objective standards, that all value is relative to desire, and that nothing is really better than anything else? Does not reason collapse if objective norms be not acknowledged? The thinker is called on to answer no more important question.

[1] See the Boston *Transcript,* May 26, 1923, and other newspapers of that date, for a full account. Among the men of science who signed the statements are Professors Millikan (physicist), Walcott (geologist), Osborne (paleontologist), Conklin (zoölogist), Angell (psychologist and president of Yale), Coulter (botanist), and many others; some of the religious leaders are Bishops Lawrence, Manning, and McConnell; Dr. Van Dyke, and President King.

A further consideration may be mentioned,—namely, that the existence of values in human life is hard to explain if the universe itself be entirely indifferent to value. In a world so utterly valueless as that pictured by Mr. Bertrand Russell in his famous essay, "A Free Man's Worship," it is hard to explain the rise of Mr. Russell's own heroic idealism; it is an inexplicable miracle, a fact with no significant relations to its causes or its effects,—in short an incoherent item of worth in a worthless world.[1]

This argument may not be conclusive taken by itself. An effect need not resemble a cause; I may drink whisky and feel Dutch courage, the courage bearing no likeness to the whisky. So too, unfeeling nature may produce the sensitive ideals of the social reformer. It remains true, however, in spite of the analogy of whisky, that there is something miraculous and incoherent about the rise of value in a valueless universe; and if there is a logical way of describing reality that can include the facts of nature and the facts of value in a more coherent world-view than Mr. Russell's, logic would compel us to say that the more coherent view is more probably true.

The subjectivist may return to the attack by calling attention to the age-old problem of evil. He might ask whether the objectivist's contention does not prove too much. If the presence of value is hard to explain in a valueless universe, he might urge, it is much harder to explain the presence of evil in a good universe.

The difficulty of "the problem of evil" is notorious.[2] It must be admitted that the presence of both good and evil in the same universe is not easy to explain on any theory. Whether fundamental reality be good or evil or neutral or

[1] See also Leighton, *Man and the Cosmos,* p. 378.
[2] See Chapter IX, § 3, (3) for a fuller treatment of the problem.

mixed, this is a perplexing world and difficulties attend every proffered solution. The objectivist may, however, maintain that fewer and less serious difficulties attend his solution than any other, and for the following reasons. Evil is essentially incoherent, both within itself, and with fundamental aspects of truth; it is contradictory and negative, not positive and coherent. Hence the presence of evil in the universe does not prove the objectivity of evil. The argument for a devil does not stand on the same plane intellectually with the argument for a God. It is, then, more coherent to judge that metaphysical reality is fundamentally good, than to judge it evil, or partly good and partly evil. We have already seen that it is very difficult to regard it as neutral or valueless. Whatever, then, be its function, evil cannot be the fundamental meaning of the universe. It is at least possible that the universe may be better with evil in it than it would have been without; yet, if this be true, there is a fundamental tragedy in value and goodness themselves that no optimism should conceal from our eyes. The place of the death of Jesus in Christian theology testifies that the religious consciousness is not unaware of tragedy in God himself.

§ 14. VALUE AND PERSONALISM

A survey of the results of our reflection about values leaves us apparently face to face with what philosophy calls an antinomy,—that is, two mutually contradictory propositions, each of which can be proved true. These two propositions are called thesis and antithesis. In the theory of value the thesis runs: values are relative to consciousness, are what consciousness appreciates (subjective). The antithesis is:

values are objective, are such that they really ought to be appreciated whether we actually appreciate them or not.

About every apparent antinomy the first question to ask is whether the thesis and antithesis are contradictory. If we reëxamine the two propositions in question, it appears that the antithesis is more obscure and uncertain than the thesis. It is reasonably certain that valuing is a conscious experience; value is dependent on personality. Now, if the antithesis means to assert that value is wholly independent of personality, it contradicts the thesis. But a value wholly independent of personality is just as inconceivable as a sensation of red wholly independent of consciousness. If it means that value is partly independent of personality, the thesis would admit this for instrumental value, but not for intrinsic; and our inquiry relates to intrinsic values. If the thesis be true, not even a part of intrinsic value can be independent of personality. Yet the antithesis asserts, and has presented many arguments to prove, that value is objective; that I face a world in which value is a reality beyond myself. What we have called social subjectivism holds that the realization of value experiences by social groups conforming to social standards provides the needed objectivity. But we have already shown that coherent thought means more than this; it means that true values are derived not merely from the social situations in which they come to expression, but from the nature and structure of reality. If this be sound reasoning, it follows that there is only one way to reconcile the true thesis with the truth in the antithesis, namely, to suppose that the true values are experiences of a mind beyond all human individuals and societies. Since true values are a coherent system, it is more reasonable to suppose that this mind is one and not many.

Here again we see that thought drives us in the direction of the hypothesis of a supreme mind or person as the ultimate reality of the universe and the home of values. The hypothesis, known as personalistic idealism or personalism, is true if it be, as it appears to be, the only thoroughly coherent solution of the antinomy.

There is a certain native (or acquired) rebellion of the human mind against taking the step from a state of ignorance or contradiction to a state of coherent thought, especially under certain conditions. When the step is not one compelled by deductive or analytic method, but is an advance in synoptic comprehension, not based on specific sense experiences, but on our interpretation of the whole of experience, the cautious thinker often declines to accept the most reasonable hypothesis as true. Particularly do some minds, fearful of being influenced by theological prejudices, hesitate, as though it were in some strange way more noble and loyal to truth to be led by anti-theological fear than by theological love. They may argue that perhaps the hypothesis of a Supreme Person is the best we can think of at the moment, or the best the race has developed; but that the truth may lie as far beyond personality as personality is beyond electrons.

The personalist has a reply to such objectors. He insists as strongly as his critics that all human thinking is fallible; only the Infinite is infinite, only the Absolute is absolute. We may be wrong, even when we are very certain we are right, but such reflections are out of place in philosophy except in so far as we can show reasons for doubting the truth of our beliefs. Philosophy aims to make experience intelligible; to reject an intelligible and coherent hypothesis merely because something else, I know not what, may be the explanation is irrational. Thought triumphs in science and

in philosophy, in theoretical and practical matters, only as it keeps advancing in the direction of the most reasonable view.

Things, we have been led to suggest, are activities of a supreme mind; universals are the thought-stuff of a supreme mind; values, the normative appreciations of a supreme mind that ought to be known and appreciated by human minds. All roads lead to mind, but what (we must ask) is mind? The following chapter will investigate the nature of consciousness, mind, or personality.

CHAPTER VI

WHAT IS CONSCIOUSNESS?

§ 1. INTRODUCTORY

"The knowledge of the soul," says Aristotle, "appears to be very useful for all truth";[1] more useful, Aristotle might say to Tennyson, than any possible knowledge of the "flower in the crannied wall." The human soul is the seat of perception and knowledge; could we but know what it is, its powers and functions, its origin and limitations, our knowledge of "all truth" would be far advanced. The theory of mind (psychology in the broadest sense) is the most fundamental part of philosophy. On this Plato and Aristotle, Berkeley and Leibniz, Kant and Hegel, would agree; modern idealists and realists find here a proposition acceptable to both schools.[2]

In principle, then, a large majority of philosophers would agree that the problem of soul or mind is fundamental. They would, however, soon enough find a bone of contention. What shall we call this very important fact that we are about to investigate? Not *soul,* most would agree; for psychology has long been without a soul; some would object to *mind,* others to *consciousness.*[3] It is often facetiously said

[1] *De Anima,* A, I. 1.

[2] Professor Perry, for the realists, speaks of the "fundamental importance of the problem of mind." *Present Philosophical Tendencies,* p. 272.

[3] Some believers in consciousness, like James Ward, object to the term (see *Psychological Principles,* p. 47), as well as doubters thereof, like J. B. Watson (*Psychology from the Standpoint of a Behaviorist,* p. viii).

that psychology, having lost its soul and its mind, is now about to lose consciousness. It would seem to be a desperate situation if all agree that something is very important, but no one is willing to name the something. It may be that psychologists are suffering from over-sensitiveness about terms. The reason for this sensitiveness is the desire to avoid committal in advance to a special theory of what the mind is. *Soul* is a question-begging epithet, as is *person*, or *self*.

It would appear that the word *consciousness* is the least objectionable term to indicate what we are going to study. Every one knows, by immediate awareness, what it is to be conscious and gradually to lose consciousness on falling asleep. We all experience thoughts, feelings, perceptions, memories, imaginations, choices and the like; we know what it is to give conscious attention, and we know how the field of consciousness includes both the focus or "bright spot" of the center of attention, and the more or less vague "fringe" surrounding it; we perceive that we assign physical things to a certain location in space, whereas to consciousness we assign neither volume nor location. Consciousness is present to us as a flowing stream in which are reflected the varied colors of the neighboring world. We may thus designate what we mean by consciousness; we may name its parts; we may contrast it with the unconscious; but we are unable to give a formal definition of it. This situation need not deter us in view of the fact that only conscious beings read books or study philosophy.

If the term *consciousness* be objected to by psychological purists, it may be said that no better term has yet been proposed. James Ward, A. E. Taylor and others would abandon *consciousness* for *attention;* but *attention* appears to designate only one aspect (if an essential one) of con-

sciousness and is therefore a one-sided approach. J. B. Watson and his school wish to give up *consciousness* for *behavior.* Even if behaviorism should turn out to be true, this is an unfortunate starting-point for the study of the mind; it creates the impression that the behaviorist desires to distract attention from the immediate facts of consciousness to the facts of behavior. If psychology is the study of behavior to the exclusion of consciousness, it is a branch of the study of physical things. On the other hand, those who regard psychology as the study of consciousness do not dream of excluding a study of the relations of mind to body and environment.

With clear consciences, then, we may proceed to seek an answer to the question, "What is consciousness?"

§ 2. HOW SHOULD CONSCIOUSNESS BE STUDIED?

The question of method of investigation is an important preliminary. A wrong or inadequate method may easily preclude the attainment of truth. To use a crude illustration, he who undertakes to ride in an automobile to the North Pole, under present conditions, is doomed to failure, even though he have the best of automobiles and of intentions. In order to avoid failure in the study of consciousness every method that has any promise whatever should be attempted.

(1) METHODS IN USE. The methods that have been tried and found to yield results are the following:

(a) *Introspection.* Introspection means turning attention to one's own consciousness and observing it.[1] Ordinarily we are not introspecting; we are perceiving the world about us. But it is quite possible to direct attention to consciousness

[1] On the nature of introspection see M. W. Calkins, "Self in Scientific Psychology," *Am. Jour. Psych.*, 26 (1915), 522 ff.

itself and thus to become conscious of consciousness. Introspection occurs unscientifically whenever we think about our own inner life. It occurs scientifically when trained observers inspect their consciousness under standardized conditions. The much-discussed method of psychoanalysis is an attempt on the part of the psychologist so to direct the introspection of the patient as to lead him to become aware of conscious complexes that have been "suppressed."

(b) *Objective Observation of Behavior.* The method of introspection suffers from the defect of giving information about the consciousness of one person only, namely, the introspector himself. It would seem that data derived from so restricted a field are too fragile a basis on which to rear a psychology and philosophy of consciousness. Hence, psychology has always had recourse to the method of the objective observation of behavior. We observe that our own consciousness is followed or preceded by certain kinds of behavior; and we believe that similar behavior on the part of others is accompanied by similar consciousness.[1] If, then, we are to know anything about the consciousness of others, we must observe their behavior,—watch their reactions to stimuli, listen to their words, note their gestures and facial expressions. Psychophysics, the study of the relation between mathematically measured alterations of stimulus and the conscious reaction of the subject of the experiment, belongs here. Objective observation is sometimes called methodological behaviorism.

(c) *The Method of Physiological Psychology.* Light is shed on consciousness by a study of the relations of conscious processes to physiological processes, especially of the relations of consciousness to nervous system. Use of the

[1] The validity of the above statement as the ground of our knowledge of other minds has been challenged by some.

method of physiological psychology presupposes physiological knowledge, and no small harm has been done by attempts of psychologists to pronounce on physiological, neurological, and anatomical matters without adequate knowledge of biological science.

(d) *Analytic (or Structural) Method.* All of the data gathered by the foregoing methods may be studied either analytically or functionally. If studied analytically they may be analyzed into their constituent parts or elements; that is, their structure is investigated. The results of introspection, for example, may be analyzed and found to consist of sensational, relational, and other elements. When applied to physiological psychology, this method would emphasize such facts as the localization of functions in the brain.

(e) *Functional Method.* The functional method studies consciousness as a process in the light of what it does and is a necessary supplement to the analytic method. It investigates the work that consciousness does both in adapting the human being to his environment and also in organizing its own inner life of ends and ideals. It is regrettable that some exponents of functional method have clung one-sidedly either to environment or to inner adaptations, failing to realize that a complete study must take all the facts of consciousness into account.

Other methods have been suggested, but they would appear to be included under the above. Psychoanalysis, as we have shown, is a branch of introspection; psychophysics, of objective observation; and experimental method is simply the carrying out of all the others under controlled conditions.

(2) WHY THE METHOD OF INTROSPECTION IS FUNDAMENTAL. There is dispute among psychologists about the relative value of the different methods. Without going into

all the pros and cons of the discussion, let us consider the arguments for regarding introspection as fundamental. In the course of the chapter, the case for other methods will be discussed.

First of all, it appears self-evident that, if we grant that conscious processes are experienced and are different from physical things, we must also grant that no conscious process has ever been directly experienced by any one save the person that has it. All direct knowledge of conscious process (if there is any) must be introspective.

Further, the results of all the other methods must be interpreted in the light of introspection. If physiological psychology or observation of behavior ignore introspective results, they leave facts out of account and would then give us information about certain organic physical things, but not about consciousness. Only when the facts of introspection are also considered are the observed physiological data significant for psychology.

While it is true that introspection has the disadvantage of giving us data about one person only, it has the advantage of being more certain than the results of objective observation. It is true that introspective knowledge, like observation of behavior, is epistemologically dualistic and so is liable to error. If our study of epistemology, however, was sound, introspection has an advantage over knowledge of physical things; for physical things are always other than our consciousness, whereas every moment of consciousness has been immediate experience. Introspection may always be retrospection; but what we thus know mediately has once been immediate experience.

Some object to introspection on the ground that it ignores the actual dependence of consciousness on the human organism. The introspectionist may well reply to this objection

that, while the relation of consciousness to body is intimate, progress in thought depends on the isolation of problems, as well as on the perception of connections among problems. If there be such a fact as consciousness, it deserves study on its own account; before we inquire into the relations of mind and body, for example, we need light on what mind is. The science of chemistry can exist as science only in the minds of students of chemistry; those minds are, it is true, to a great extent dependent on bodies, but the fact of that dependence is ignored in chemistry. At the outset, at least, psychology also is amply justified in studying its data, the facts of conscious process, to see what can be made out of them. It may be that consciousness cannot be understood without regard to the organic bases of experience; yet it remains true that introspection is the fundamental method of psychology.

§ 3. ADVANTAGES OF AN HISTORICAL APPROACH TO THE PROBLEM

In view of the advances that psychology has made in recent times, it might appear natural to begin the study of consciousness by a direct analysis of consciousness in the light of modern psychology and with the aid of the methods that have been described. But our interest in the problem is not merely in the empirical account of the facts of consciousness, important and necessary as that is, but rather in the philosophical interpretation of those facts. It cannot be said that philosophical psychology has attained such a state of insight that we have reached a consensus of opinion among scholars about the nature of consciousness. Men in their zeal for this or that opinion often write as though every standpoint save their own were superseded. It is

worth while not to confuse an enthusiastic form of words with solid argument.

If, then, we were to start with the present state of psychological opinion, we should find ourselves confronting a number of different standpoints, which have their roots in the past. Hence, it is more reasonable to sketch, if only hastily, the history of these different points of view in order to become aware of the considerations that have led to the differences.

§ 4. PRIMITIVE BELIEF IN THE SOUL

Primitive man had no science of psychology or of biology; no clearly defined concepts of matter or of mind; no idea of natural law. Science and philosophy were equally unknown to him. Yet he lived and felt and thought and began to shape the words and the problems that later generations were to criticize. Observation of the facts of life and death, of sleep and unconsciousness, led him to the theory that there was something in him that caused him to move and speak and live. This something was the soul.

He had various ideas about what this soul was.[1] It was some sort of power, perhaps akin to breath (hence called "spirit," cf. Gn. 2^7 and the Greek *pneuma*), or to wind, or to the life-principle (hence the significance of blood in early religions), or whatever seems like the living, subtle power of mind in man. This conception of soul was very important for primitive man. All of nature his animistic theory believed to be inhabited by souls; and invisible spirits of good and evil were thought to surround and influence his daily

[1] See the articles on *Soul* in Hastings, *Encyclopædia of Religion and Ethics,* Mathews and Smith, *Dictionary of Religion and Ethics,* and Webster's *New International Dictionary.*

life. Dreams and abnormal psychological states induced the belief that the soul was separable from the body and could travel afar. Primitive man did not, however, conceive the soul as immaterial; for him it was a refined and subtle form of matter.

§ 5. MORE DEVELOPED THEORIES OF THE SOUL

From the well-nigh universal primitive soul-idea, the more advanced philosophies and religions began to develop more reflective theories of the soul. They have played an important part in the history of thought.

Plato was the first to work out the sharp distinction between soul and body. The soul is, according to Plato, invisible, made up of will and thought, joy and grief, and the like, more noble than the body, living before the body lives and after the body dies. This Platonic conception of the soul as immaterial and immortal was taken up by St. Augustine and medieval philosophy and was made the starting-point of modern philosophy in Descartes.

Meanwhile, however, questions arose. As the conceptions of body and soul and scientific method were more and more clearly defined, one difficulty in particular pressed on thought. Scientific method was coming to be aware of what Leibniz later called the *lex continui,* the law of continuity. This law laid down the principle that everything in nature is continuous, that there are no leaps and no breaks. This principle, more or less consciously realized long before the time of Leibniz, led to a difficulty about the soul. Body we naturally think of as continuous; but how about soul? If the soul be immaterial, its continuity is nothing physical; but if it be throughout of the nature of consciousness, where is its continuity? Our conscious life is notoriously fragmen-

tary. It lasts but a few hours at a time. It is interrupted by sleep or accident and finally by death.

This difficulty led many philosophers to the hypothesis that soul, or spiritual substance, must be something continuous that exists whether we are conscious or not.[1] For such thinkers the soul was that which had consciousness and possessed certain "faculties," such as intellect and will (hence the so-called "faculty psychology"). This hypothesis saved the soul and the law of continuity, it is true, but at considerable expense to other intellectual demands, particularly to the demand for clear definition. What is the soul of which so much is said? It is "that which" has consciousness, "that which" is continuously existing even when we are unconscious, "that which" has faculties. It is not material; neither is it wholly of the nature of consciousness. It is a very abstract sort of essence; indeed, one can hardly attach any positive meaning whatever to the word *soul* when used in this sense. Some of the most ardent advocates of the reality of conscious personality have been most destructive in their analysis of this sort of "soul." In his *Commonplace Book,* Berkeley says,[2] "Locke seems to be mistaken when he says thought is not essential to the mind. Certainly the mind always and constantly thinks: and we know this too. In sleep and trances the mind *exists not*—there is no time, no succession of ideas. To say the mind exists without thinking is a contradiction, nonsense, nothing." Lotze is even more explicit; he says, "And if the soul in a perfectly dreamless sleep thinks, feels, and wills nothing, *is* the soul then at all, and what is it? . . . Why have we not had the courage to say that, *as often as* this happens,

[1] See M. W. Calkins, "The Case of Self against Soul," *Psych. Rev.,* 24 (1917), 278-300. Locke and Kant held the view of the soul described in the text.

[2] *Works,* 2nd ed., Vol. I, p. 34.

the soul *is* not."[1] John Laird, one of the most thorough of recent students of our problem, quotes Berkeley and Lotze with approval and says,[2] "The unity is compatible with the existence of temporal gaps, and these may be irrelevant. Why complicate the discussion by seeking a permanent in any further sense?"

At least one distinguished contemporary psychologist, Professor William McDougall, still adheres to the conception of soul. He appeals to a something other than conscious experience on the ground that soul is needed to solve certain physiological problems, and that the identification of soul with consciousness fails in this function.[3] Yet he also rejects the traditional idea of the soul as a substratum underlying and distinct from consciousness. His view regards the soul as "a sum of enduring capacities" for consciousness.[4] This view, however, is difficult. It is hard to conceive of a "capacity" which, when not yet realized, is the property of no unconscious substratum nor yet of consciousness, but is a mere capacity. The fact which this theory strives to express is evident enough; but it may be doubted whether the theory is intelligible or performs the true theoretical function of explaining the facts.

Views more or less akin to McDougall's appear in the writings of certain biologists (vitalists), but in spite of these it may be said that modern philosophy and psychology have almost unanimously rejected the older theory of the soul. It is, however, singularly persistent in popular thought. The reason for its persistence is probably twofold. It appears to the popular mind that the fate of values in the universe is inseparable from the reality of the soul; hence, it reasons, the

[1] *Metaphysics,* Eng. tr., II, p. 317.
[2] *Problems of the Self,* p. 271.
[3] *Body and Mind,* p. 359.
[4] *Ib.,* p. 365.

soul must have a solid, thing-like existence. Further, the popular mind thinks naturally in pictures; the soul may be pictured as the abiding bill-board on which the changing bills of consciousness are posted, as the abiding pincushion into which pins of feeling and thought are successively stuck, or as the abiding banks between which the changing stream of awareness may flow.

The force of this popular reasoning is, however, very slight. If the fate of values depends on an unintelligible conception of soul, we may as well admit that the doom of values is sealed and go about our business as best we may. It may well be, however, that some other theory of consciousness will be able to give as good an account of values as the "soul" theory,—or even better. The picturable character of soul is of course thoroughly illusory. Only material things can be pictured, and scarcely they, if we accept the electrical theory of matter. Any attempt to picture soul must fail to do justice by what is immaterial. As a matter of fact, the chief value of the traditional theory of the soul is that it is a short cut to a desired conclusion; it saves or rather prevents serious thinking about the problem of consciousness and presents a meaningless entity that is neither consciousness nor matter nor universal as though it solved the problem.

The history of the soul-idea in occidental thought has an interesting parallel in the religious philosophy of India. The varieties of opinion in Indian thought are fully as numerous as those in occidental philosophy, and the following statement is therefore a highly condensed simplification of the facts. Among the Hindus there prevailed a view of the nature of the soul not unlike the scholastic theory that we have been discussing. For this view the soul (or *atman*) was an entity distinct both from body and from conscious-

ness, indestructible and eternal.[1] Metaphysically all *atman* came to be regarded as one, and as identical with the supreme *Atman* which is the one and only reality in the universe. Buddhism, however, subjected this transcendent soul to a searching psychological critique. "There is no separate ego-soul outside or behind the thought of man." Nothing, Buddhism argued, constitutes my personal identity save my thought and character; the assertion of *atman* is theoretically meaningless and practically egoistic.[2] Thus did oriental thought in its way work out a criticism of the soul.

§ 6. ASSOCIATIONISTIC THEORIES OF CONSCIOUSNESS (STRUCTURAL OR ANALYTIC)

When thought becomes convinced that a transcendent soul is not truth, but an imaginative picture, it has not solved the problem of consciousness. It has only pronounced a veto against unintelligible speculation and set psychology at work again on the study of consciousness.

Psychology, chastened and rendered cautious by its unpleasant affair with the soul, thinks that it has learned a lesson and seeks to profit by experience. The result of this stage of thought is what is known as associationism, or the association psychology. If the facts of experience are to be understood, they must be analyzed. The associationist begins (and ends) with the analytic method; his procedure is also described as structural, since he aims to discover the structure of experience.

David Hume is the greatest and most typical association-

[1] Moore, *History of Religions,* Vol. I, p. 273. Art. "Soul (Hindu)," in Hastings, *Encyclopædia of Religion and Ethics.*

[2] Carus, *The Gospel of Buddha,* pp. 24, 136 f.

ist. His view of consciousness we have already examined as an illustration of the analytic method. At present a very brief summary will suffice. Hume holds that the more complex states of consciousness, when analyzed, are found to consist of what he calls impressions and ideas and their relations. By impressions he means what we commonly mean by sensations; by ideas, pale copies of impressions in memory or imagination. Relations or associations among impressions and ideas explain our whole consciousness including its most fundamental principles, such as the ideas of cause and of self. This associationism is, clearly, a nominalistic empiricism; and, because, in many of its forms, it lays stress on the reduction of all consciousness to sensation, it is often known as sensationalism.

In favor of associationism several considerations may be urged. It abandons the incomprehensible metaphysics of the soul for a concrete study of the facts of consciousness. It employs scientific method, the method of analysis. It is, or aims to be, a complete account of consciousness. It calls attention to many undeniable laws of the structure of consciousness.

Nevertheless associationalism may be criticized. It is professedly empirical, seeking to explain consciousness in terms of what is actually experienced, but it tells us that all ideas are made up of sensations. "Pure" sensations, however,—that is, sensations from which all thought and idea are lacking, never occur in our experience. They are abstractions to which a psychology based on experience has no right. Further, if there were a pure sensation, it would last only as long as it was consciously experienced; after it had departed from consciousness, it would be annihilated. It is difficult to see how an idea can copy a past sensation that no longer exists. Either the sensation must continue

to lead a subterranean existence after its original appearance in consciousness, whence it may be dug up (so to speak), when needed; or else the idea that copies the original sensation has the property of leaping over the intervening period of the non-existence of the sensation to the time when it originally appeared, somehow reviving the past and then copying it. This seems to involve far more than the associationist is willing to admit; yet, if his theory is to be intelligible he must admit it,—and abandon the principles of his theory.

One of the problems precipitated by associationism is the problem of the self. If associationism be true, not only is there no soul, but there is also no self as an ultimate conscious unity. What we call our self or self-consciousness is then only a complex bundle of sensations. It is noteworthy that Hume himself and John Stuart Mill, two of the greatest associationists, themselves confess difficulty with their conclusions about self-consciousness. Hume says, "Upon a more strict review of the section concerning personal identity, I find myself involved in such a labyrinth that, I must confess, I neither know how to correct my former opinions, nor how to render them consistent."[1] He goes on to review the arguments for the associationist analysis of consciousness, and then honestly to confess, "Having thus loosened all our particular perceptions, when I proceed to explain the principle of connection, which binds them together, and makes us attribute to them a real simplicity and identity, I am sensible that my account is very defective, and that nothing but the seeming evidence of the precedent reasonings could have induced me to receive it. . . . All my hopes vanish when I come to explain the principles that unite our successive

[1] *Treatise of Human Nature,* Everyman's Library Edition, Vol. II, pp. 317 ff.

perceptions in our thought or consciousness. . . . Did our perceptions either inhere in something simple and individual, or did the mind perceive some real connection among them, there would be no difficulty in the case. For my part, I must plead the privilege of a skeptic, and confess that the difficulty is too hard for my understanding." Hume, in other words, admits that associationism leads to an unintelligible account of self-consciousness.

A like confession of failure is found in John Stuart Mill's *Examination of Sir William Hamilton's Philosophy*.[1] Mill asserts that "the theory . . . which resolves mind into a series of feelings, with a background of possibilities of feeling, can effectually withstand the most invidious of the arguments directed against it. But, groundless as are the extrinsic objections, the theory has intrinsic difficulties . . . which it seems to me beyond the power of metaphysical analysis to remove." These difficulties he summarizes as follows, "If, therefore, we speak of the mind as a series of feelings, we are obliged to complete the statement by calling it a series of feelings which is aware of itself as past and future; and we are reduced to the alternative of believing that the mind, or Ego, is something different from any series of feelings, or of possibilities of them, or of accepting the paradox, that something which *ex hypothesi* is but a series of feelings, can be aware of itself as a series." This is, he says, a "final inexplicability." In other words, Mill, like Hume, admits that the unity of consciousness is unintelligible on associationist principles.

The frankness of Hume and Mill is an unusual spectacle in the history of philosophy and an instructive one; for it shows the inevitable consequences of an attempt to understand the mind by the use of analytic method alone.

[1] See pages 260-262.

Analysis is, indeed, necessary. But our conscious life is not a mere collection of separate sensations or parts of any kind; it is an organic whole, and can therefore be understood only by a synoptic method.

§ 7. FUNCTIONAL THEORIES

Psychology has recognized the defects of associationism arising from its exclusively analytic or structural point of view. Modern psychology has, in large measure, become functional. That is to say, it aims not merely to analyze the conscious life, as associationism did, but to interpret that life as a process, considering what it does, what ends it serves, what functions it fulfills. This functional point of view is obviously synoptic, for it considers consciousness or some group of conscious processes as a whole.

The development of functional theories in modern psychology has been in two different directions, the biological, and self-psychology.

Biological functionalism is an outgrowth both of the inner development of psychology and of the modern interest in biology. Obviously consciousness performs biological functions; it directs the organism in its adaptations to environment and aids the survival and development of life. Interest in the biological relations of consciousness has been increasing. At first, the functional approach was regarded as one among many possible points of view; then arose a group of psychologists who tended to maintain that the biological function of consciousness was the only one worth noticing and that all conscious process should be interpreted exclusively from the biological point of view; finally, the extreme behaviorists took the ground that consciousness is physiological behavior and nothing else.

The functionalists who advocate self-psychology have been less numerous and less full in their expositions than the biological group. Their point of view is, however, sharply to be differentiated from biological functionalism. It holds that conscious process can never be truly described in terms of anything else, even if that something else be so near and so important as the behavior of our bodies. It believes that self-experience is the fundamental fact of conscious life, and that consciousness can never be understood without taking into account the attitudes, the aims and the preferences,—in short, the functions,—of selves. We shall proceed to consider these two types of functionalism.

§ 8. BEHAVIORISM

We shall study the extreme type of biological functionalism known as behaviorism; for it is the only type about which there is fundamental difference of opinion.

(1) DEFINITION. The term *behaviorism* is used in at least two different senses, and current discussion is confused on account of failure to discriminate these meanings. One of these meanings was considered in § 2 of this chapter, as "Objective Observation of Behavior," or methodological behaviorism. It means merely that a study of behavior is our only method of gathering data about the consciousness of other people. Their words, their habits, their reactions to stimuli, in short their behavior, is our only clew [1] to what is going on in the minds of those around us. All psychologists and philosophers recognize and use behaviorism as a method. It has led to abundant concrete results and has the advantage

[1] Unless, indeed, there be truth in telepathy; but hitherto telepathy has given us exceedingly meager results, and pretended telepathic data have to be checked up by later objective observations.

of being precise and objective, as well as of being a method that lends itself to use in comparative psychology. No objection can reasonably be raised to behaviorism as method. Objection, however, may be raised to the attitude of enthusiasts who would make it the only method to the exclusion of introspective, analytic, and functional study. Every road that leads to truth is trodden by the feet of philosophy; obstructions placed in any such road are the work, to say the least, of her misguided friends.

The second meaning of behaviorism is metaphysical. Metaphysical behaviorism goes much further than methodological behaviorism and is accepted by a much smaller group. It is the view which asserts that consciousness is behavior; that our sensations, our thoughts, our feelings and all that we have called our conscious life are (in so far as they are at all) simply physiological reactions of our organism, adjustments to environment; or, to put it bluntly, consciousness is the motion of matter in space. Professors E. A. Singer and J. B. Watson were the chief founders of this view, and Professor John Dewey holds to a form of it. Many others are more or less convinced of its truth, and it has exerted an influence disproportionate to the numbers of those holding it.

(2) CONSIDERATIONS LEADING TO BEHAVIORISM.[1] Probably the development of biological science is among the chief causes for the growth of behaviorism. The more men know about the facts of life and its evolution, the simpler it appears to some minds to explain all the facts of experience in exclusively biological terms.

Confirming this biological interest, there is the proved usefulness of methodological behaviorism. If a study of be-

[1] From this point on, the word behaviorism will be used to mean metaphysical behaviorism.

havior is our only means of learning about human consciousness, why not admit (the behaviorists say) that we are studying behavior and nothing else?

Further, behavior is something public, observable by all. When we speak of behavior we can point at it and say, There it is. It is, therefore, suitable subject-matter for science. But if I say I am introspectively conscious, I cannot point to my consciousness of love or hate, of memory or hope, and say, There it is. I can speak to others words of love or hope; I can show others by my behavior that I hate or remember; but I cannot reasonably invite others to inspect my love or my hate, itself, as a conscious process. Hence, ask the behaviorists, if consciousness is inaccessible, if it is a state secret hidden from the public, why assert that it exists? There would seem to be no scientific ground for asserting that there is any such thing. Consciousness, they might say, is like yonder cloud, "almost in shape of a camel . . . backed like a weasel . . . very like a whale"; in short, something of which no scientific truth can be asserted with the means at our command.

The ideal of the unity of the sciences is one that exerts great influence on thinkers. In accordance with this ideal, the fundamental methods of all the sciences and the fundamental realities with which they deal should all be intimately related, and should belong to one system of nature. Now most of the sciences deal with the properties of physical things at various stages of organization. The demand for the unity of the sciences (a form of the logical ideal of coherence) leads many to adopt the standpoint known as materialism or naturalism, which seeks to unify our knowledge of all reality by interpreting everything in terms of physical nature. From a naturalistic standpoint, consciousness is doubtless a nuisance. It fills none of the space in

which naturalism finds all of its objects. It gayly transcends the time that naturalism wishes to keep real and orderly. Not being physical, consciousness is not subject to the law of the conservation of energy, and still it seems to make a difference to physical energy, such that the reign of the law itself is imperiled. No wonder that devoted naturalists call consciousness supernatural! No wonder that some of them solve the problem by denying the awkward fact and turning behaviorist!

A special application of this last point should be made, namely, the effect of behaviorism on the famous mind-body problem. Traditional solutions of the problem (which will be discussed more fully later in the chapter) have given no general satisfaction. The belief that mind and body interact threatened the whole naturalistic position and was therefore strongly resisted by many; the belief that mind and body are parallel series, occurring at the same time but never interacting, satisfied the laws of naturalism, but left consciousness in a posture so absurd and otiose as to arouse mingled laughter and tears. If, then, one is to reject both interactionism and parallelism, one sees in behaviorism promise of happy release; for it holds that there is no problem about the relation of mind and body, since mind and body are one.

Finally, behaviorism appears to avoid the defects of earlier views of the nature of consciousness. It has no transcendent and meaningless soul; it deals with observed facts only. It does not, like associationism, analyze consciousness into units of sensation, but it regards mind as active functioning, spontaneous response to stimuli, and thus, in a sense, avails itself of the synoptic method.

Extraordinary as is the behavioristic thesis, then, it is not without plausible grounds.

(3) Difficulties with Behaviorism. The objections

to behaviorism, however, are regarded by many as sufficiently serious to overthrow the theory.

First of all, behaviorism is a theory that rests on the denial of facts, namely, the facts of introspection. There is no point in the behaviorist criticism of introspection unless it be true that there are introspective facts, which the behaviorist judges unworthy or impossible of scientific study, and hence, nonexistent. But the facts are there. Immediate experience testifies to them. The behaviorist's only possible reply would be that he does not mean to deny any facts; he means only to reinterpret them. If that is all he means, he is loyally working at the task of science. But a reinterpretation must find room for all the facts, and behaviorism has no room at all for such facts as: the way I feel about my behavior, my conscious life of which I am aware while unaware of my behavior, my consciousness of the meaning of words as quite distinct from the utterance of the words. The apparent advantages of behaviorism—its dealing with objects common to all, its avoidance of the mind-body problem—are derived from its ignoring of these facts of consciousness that cause the difficulty. Such advantages are too dearly bought if one desires the whole truth.

Our conscious life, the critic of behaviorism may go on to say, far from being identical with our behavior is only roughly symbolized by it. If we know anything, we know what we mean by a reference to the past or the future; behavior can symbolize these meanings by words or gestures, but the words or gestures of behavior convey meaning only because consciousness interprets them. Mind, as we know by constant experience, can refer to an absent object; behavior can acquire that reference only through a mind that interprets it. Or, to take another illustration, universals are objects of conscious experience that behavior can never fully

express. We know consciously what we mean by a truth that is always true; no amount or kind of behavior, apart from conscious thought, could ever express "always." We experience a consciousness of moral obligation and of ideal values; while our behavior shows our practice of such ideals, the experienced sense of obligation itself or the ideal of truthfulness can never be a mere fact of behavior. Behavior may symbolize or suggest meaning; it is not the actual conscious experience of meanings.

Further, much consciousness is irrelevant to behavior. In the ordinary field of visual attention, we see many objects to which we never "react"; and we imagine sights and sounds, colors and words to which we never give expression in behavior. If the behaviorist says that in all these cases there really is an elementary form of behavior, his theory has become as transcendent and hypothetical as the soul-theory at its worst; if I believe that my imagination of purple and crimson sunsets is really an incipient motion of some parts of my body, and nothing else, then I explain *ignotum per ignotius;*[1] for if the imagined sunset be an "unknown," the hypothetical motion is still more unknown.

The truth of the behaviorist's contention rests on the truth of his naturalistic assumption. He assumes that physical things are known to be ultimately real, and proceeds to explain "consciousness" entirely in terms of the physical things. There are grave difficulties in any naturalistic materialism which need not be recited here. One comment may suffice: if physical things (matter moving in space) be truly real and be all that is truly real then all thinking is simply a form of physical motion (reaction to stimuli, behavior). If this be taken seriously, it is hard to see why one set of motions of matter in space is any better

[1] "The unknown by the more unknown."

or truer than any other. What logical right has any set of motions to "judge" the others as false or inadequate; indeed, how can it judge at all? That is to say, the naturalistic basis of behaviorism makes all judging, all distinctions between truth and error, as well as all values, impossible,—unless one surreptitiously assumes a conscious mind around the corner that is thinking about motions and behavior and judging them.

§ 9. SELF-PSYCHOLOGY (PERSONALISTIC PSYCHOLOGY)

(1) Background and Definition. The theories thus far considered have all been adjudged inadequate; soul-psychology, associationism, and behaviorism either go beyond what the facts of consciousness justify or fall short of including all the facts. The latter defect is the more serious; for every theory must, in a sense, go beyond the facts as given. Merely to stare at the facts and see them as they appear at the moment is far from understanding them. The soul-psychology sought for an hypothesis to explain the given facts of conscious life; in this search it was quite right. The inadequacy of its hypothesis lay in the fact that it was unintelligible and unintelligibly related to the actual conscious life. In avoiding the excesses of the soul-psychology, associationism narrowed its range unduly, and excluded actual unifying experiences in consciousness as a whole; while behaviorism adopted the heroic measure of omitting consciousness entirely and trying to explain what it had omitted in terms of some of its causes and effects in behavior.

Evidently what is needed is a theory of consciousness that will do justice to all the facts and will offer an intel-

ligible theory to interpret them. What is called self-psychology, or personalistic psychology, aims to meet this need. It is based on the fact that conscious states or processes belong together in a unique way. Consciousness and physical matter both come clustered; single sensations and single electrons do not occur alone. But any constituent of one cluster of matter might be transferred to any other cluster; part of the wood that is now my desk might be split up and burned in the fireplace, without loss of matter or energy. Consciousness is utterly different from matter in this respect; a state of consciousness does not continue to exist if separated from the cluster in which it occurs. Items of matter (physics assumes) keep on with their career wherever they are; items of consciousness exist only in the context in which they first occur and then fade out of existence, leaving traces in the physical organism and perhaps in the subconscious (whatever that may be), but having no continuous being.

Consciousness has been compared to a stream; but in a stream each molecule of water has a permanent existence, while molecules of consciousness appear and disappear. They have no continuous and permanent existence. Consciousness is better compared to a moving picture in which everything changes, nothing abides. Yet even the comparison with the moving picture is defective, for it ignores the most striking and unique thing about consciousness. Although particular states of consciousness vanish like the pictures on the screen and are far more transient and evanescent than matter is supposed to be; although it may even happen that consciousness is suspended entirely by sleep or accident,—nevertheless conscious "clusters" have a property that gives them a stability entirely different from that of what we call matter. This is the property that con-

sciousness has of experiencing itself as belonging together and as belonging with past (and even future) clusters. This fact of experiencing consciousness as belonging together in a unique way is called self-experience. A self (or person) is conscious life thus experienced; and so far as we know, consciousness from the lowest to the highest forms is always thus experienced. Complete destruction of self-experience would be equivalent to complete destruction of consciousness as a process.

Certain misunderstandings of the self (or person) need to be cleared up.

Self-experience, of which we have been speaking, is not to be confused with reflective self-consciousness. Self-experience is always present wherever there is consciousness; it is the experience of the whole experience as belonging together and thus as being "mine." But reflective self-consciousness, or self-knowledge, is what occurs when we stop to think about self-experience and say to ourselves, "I am I, the same self that was yesterday, with such and such experiences." Reflective self-consciousness happens only occasionally in our introspective moments. Self-experience is always present.

Self is not a separate and distinct element in consciousness to be distinguished from all other perceptions and thought. It is not a special phenomenon or a sort of atom around which the other atoms cluster. In other words, self-psychology approaches consciousness synoptically and functionally rather than analytically. A self, then, is any conscious experience or process taken as a whole and as experiencing itself. The "soul" was the hypostatization of this "wholeness"; but since the self is a concrete conscious reality, why push the soul off into the realm of the unknowable?

The self, then, is not a mere unity (as the soul-theory

held), nor mere multiplicity (as associationalists and behaviorists believe), but it is a synthesizer of unity and multiplicity. The self experiences the most widely varied contents as belonging together in the life that is "my" consciousness. I may think of a hundred years and a slice of bread; of -1 and love; of logic and of roses. Whatever objects are in my mind, however diverse and otherwise unrelated they may be, are genuinely related by their compresence in one mind. Selfhood, then, is unity in variety, the true synthesis of the manifold.

Further, self-experience is not confined to the present moment; it is time-transcending. Indeed, there is no concrete present moment that does not have duration, as is shown by the psychological account of the specious present.[1] Even in the specious present, self-experience transcends time, for it is the organization and unifying in one self of conscious processes that last a certain time by the clock. Throughout the experience, I am the same self, whatever time it is; my experience belongs to the same person however the seconds come and go. But the time-transcending property of the self is more far-reaching than the specious present. Self extends beyond the specious present into the past, saying, These experiences of yesterday belong to me; and into the future, with the assertion that I will my future to be thus and so. The self is indeed confined to conscious experience; it is no unconscious entity or mere capacity. But it transcends present experience, for all self-experience appropriates aspects of past and future, and reflective self-consciousness shows that all my conscious career belongs together as one self. The fact of personal identity thus abides through changing processes, and even crosses chasms of intervening unconsciousness, or abnormal consciousness,

[1] See a psychological text-book for a treatment of this subject.

to assert, I am the same I that was before. No theory can be adequate that fails to recognize this time-transcending aspect of the self.

(2) Arguments in Favor of Self-Psychology. The foregoing treatment has shown that self-psychology avoids the defects of the soul-psychology, associationism, and behaviorism.

It is based on empirical facts, but is not confined to the analytic treatment of those facts. Its synoptic view of consciousness renders it inclusive.

It is presupposed by memory. Memory is more than the repetition in consciousness of what has been experienced in the past; there must also be recognition of the fact that the present conscious content truly refers to what I experienced in the past. The self-psychology gives a meaning to this assertion; both the remembered experience and the memory of it belong to the same self, to the same organic whole of conscious life that belongs together and is one and the same person throughout. But if there were no true self-identity there could be no true memory; we could only say "this multiplication table was learned long ago," not "I remember having learned it."

Likewise it is presupposed by thinking. The thought-process consists in relating judgments so as to come to a conclusion, solve a problem, or discover logical implications. A thought-process takes a certain amount of time and is complex. Now, if the parts or aspects of this complex process were not present to one mind the thinking process could not advance. If there are the two ideas that "All agents are shameless" and "This man is an agent," the inference that "This man is shameless" will never be drawn so long as those ideas are merely separate and distinct. It is only when one mind is able to grasp the two premises and

compare them that inference can occur. The appeal to a soul entirely outside of consciousness sheds no light on the conscious relating of the judgments in question. The analysis of consciousness into discrete states by associationism makes purposive thinking unintelligible, for we found Hume himself unable to put Humpty Dumpty together again. The assertion that consciousness is behavior is a denial that the thought process exists. Either we must deny the facts of intellectual experience or grant that thinking is always self-experience. Thus only is it intelligible to say (as we must) that ideas occurring at different times are yet members of the same mind and capable of being thought about and organized by that mind. The ideal of thought, logical coherence, can be attained or even conceived only by a mind that is capable of relating all its members in a system that is one coherent whole. Only a person can think; thought is a personal act.

Finally, the self-psychology gives the only satisfactory account of values. The considerations that have just been cited about thinking apply with even greater force to values, as may be seen by reference to Chapter V, where values were discussed. Valuation is an experience in which the entire person is engaged; it includes thinking and all the other functions of consciousness fused into one ideal whole. If only persons can think and all thought is personal, how much truer is it that only persons can value and that all value is personal.

(3) Objections to Self-Psychology. Certain objections to our view of the self, or person, have been urged. If these objections should turn out to be unanswerable, we should either be driven back to one of the views that already have been discussed and rejected or should be reduced to skepticism, pending the emergence of a new and unheard-of conception of mind.

The first objection that is likely to make itself heard is that the self is not a genuine unity because (as the associationists say) it is capable of being analyzed into elements, or aspects, or functions,—at any rate into parts of some sort. What is the self but an assemblage of sensations, reactions, inhibitions, and the like? This objection is seemingly scientific. There are, however, two facts that render it nugatory.

First, the parts into which a self may be analyzed are mere abstractions, having no existence prior to their membership in the self or apart from it. This entirely differentiates the ultimate unity of a self from the unity of things. The elements of a thing have existed before in other relations; our body is built up by food that only a little while ago was in the body of some other organism. But the actual transfer of thought-elements from the mind of one person to the mind of another does not take place; all the sensations that every one will ever experience are not doled out from some general reservoir to our minds as needed. When I see the morning paper, my self responds to a physical stimulus by a conscious perception; but that perception exists only while I am conscious of it, and it never had and never will have any existence save in and for me. The self cannot be explained in terms of elements; the elements exist only for the self.

Secondly, the analytic study of self is quite possible and valid (if understood as just explained), but needs to be supplemented by the synoptic study which, as we have seen, leads to the recognition of a real unity of self-experience as the basic fact of mind.

The temporal and intermittent character of finite selfhood, to which allusion was made earlier in the chapter, is a persistent difficulty. How (we are asked) can that be a true

unity which is interrupted by sleep, by drugs, by accident, by disease, and by death? Even if it be granted that the self can bridge the gaps of unconsciousness by its time-transcending powers, there remains the question, What is the self during the interval of unconsciousness?

If we are to be consistent in our thinking, we must not pass lightly over this difficulty, which is peculiarly critical for the self-psychology. The believer in the "soul" may say, The soul endures whether you sleep or wake. The associationist may say, These intervals of unconsciousness are proof of my thesis that there is no true unity in selfhood. The behaviorist may say, The physiological organism furnishes all the unity and continuity that is needed, and when it dies, self is gone. But the personalistic psychologist has no such easy, offhand answer as the others. He has to admit that the human self is fragmentary, incomplete, interrupted. It seems very probable that we are at times unconscious, and our self nonexistent; although it is possible that consciousness always goes on, which, in our waking moments, we forget. At best, the linkage between our conscious and unconscious periods is very loose. The self-psychologist may, however, derive comfort from the fact that this trait of the finite self adds greatly to the significance of the time-transcending function of a mind which, in a flash, every morning resumes its interrupted existence and knows itself as the one that went to sleep eight hours before. Even so, the self-psychologist must admit that finite selfhood is a very imperfect realization of the ideal of selfhood that is suggested by our moments of fullest personal experience. The finite self is incomplete and dependent not meeting the full demands of the *lex continui*.

Yet these defects, serious as they may appear, are not arguments against the self-psychology. No fact that per-

sonalists build on is thereby denied. The utmost that is proved is that human selves are imperfect selves, dependent on the rest of the universe for their continued existence. The self-psychologist, then, does not question any of the facts alleged; he fully recognizes them and maintains that the easy solutions offered by the other psychologies are easy because they do not face the full difficulty of the facts. Only true selfhood can unify the fragments of human consciousness into a mind that is truly one; yet not even selfhood (if there are none but human selves) is what a true and fully coherent self ought to be.

Much has been made of the fact that the content of consciousness changes radically in our career from the cradle to the grave. Since, however, it is the nature of a self to be the unity of varied and changing contents, this objection has little force at the present stage of our investigation.

The physiological psychologist, who need not have gone to the extreme of behaviorism, will probably have become impatient with our discussion if he has had the tenacity to keep reading to this point. He may say that consciousness has a purely physiological basis and is a purely physiological function. At any rate, he would urge, the structure and function of consciousness can never be understood if you leave physiology out of account; and all the discussion of this chapter has floated on the clouds of mere consciousness. Come down to the facts, invites the physiologist, consider the organic basis and functions of consciousness; then you will know what it is.

This physiological invitation has been heeded by many contemporary psychologists. Now the facts of physiology are facts, and important ones; they should by no means be disregarded. But the facts of consciousness are also important facts; if consciousness cannot be understood when the

physiological facts are neglected, much less can it be understood if the very facts of consciousness itself are neglected. Physiology may tell us much about the causes and the effects of consciousness; it tells us nothing whatever about the inner structure, function and meaning of consciousness. In the unification of our knowledge at which philosophy aims certainly the two sets of facts should be related. It would not be an edifying spectacle for physiology and psychology each to assert its standpoint unrelated to the other,—"you in your small corner, and I in mine." But on the other hand, physiology has no right uncritically to assume that its point of view is the final normative truth.[1] The true view of mind must take into account the facts of physiology; yes, but not of physiology alone. All that mind is and does must be included. If the physiologist is genuinely interested in facts and not in partisan advocacy of his departmental standpoint, he will acknowledge that the facts of physics and chemistry, of sociology and morals, of esthetic and religious experience, in short, of the setting of mind in its world, are as imperatively needed in the final philosophy of mind as is the standpoint of physiology.

More searching are the objections to self-psychology that arise from abnormal phenomena. Even the non-technical reader has had the facts of dual and multiple personality, of "split-off" consciousness, of the whole domain of what is called the "subconscious," brought to his attention so often in this age of popularization of psychology that a detailed recital of the data is unnecessary.[2] It is a common-

[1] As appears to be done by Dr. F. X. Dercum, *The Physiology of Mind.*

[2] See Coriat, *Abnormal Psychology,* Prince, *The Unconscious,* Richardson, *Spiritual Pluralism,* pp. 244-328, or any one of the many other treatments of the subject.

place that conscious processes, perception, reasoning, desire, and the like, seem to go in connection with our bodily organism without being integrated with our self-experience; and these processes are often organized into definite and aggressive "selves" of their own so that two or three or more "selves" assert themselves at different times, sometimes in fiendish hostility to the "normal" self, as in cases ascribed to demonic possession, and sometimes with malicious playfulness, as in the case of Miss Beauchamp's "Sally." Sometimes psychotherapy is able to banish the abnormal self, sometimes to merge the various selves in a new normal self.

In this psychic chaos, where and what is the self? Many argue that the true self is the subconscious, not the conscious; for it is as unreasonable, they hold, to say that the conscious self is the true self as to say that the surface of the sea is the true ocean,—while there are floods below where swim monsters of the deep. The opponents of self-psychology urge that self-consciousness is shown by abnormal psychology to be so dependent and unstable that it cannot be the ultimate term for the understanding of consciousness.

At this point, the advocate of soul-psychology may say that he alone holds the key to the situation; he alone has a principle for interpreting the unity and identity of personality, whatever the changes in the phenomena of consciousness. The soul is one and the same, he asserts, however troubled may be the stream of consciousness. To all of which, the reply is: Yes, you soul-psychologist, you have a word for the occasion; but alas, it is only a word! Any hypothesis that explains facts is useful and acceptable; but an hypothesis like that of the traditional soul, which, by a mere name for something-I-know-not-what, aims to explain

the difficulties in what I know, is a verbal and empty explanation, rendering nothing intelligible. Mere mystification will not do.

Again, it is the turn of the associationist and behaviorist to triumph for a moment; for the problems of abnormal psychology are mere problems of association or functional organization for them. But the apparent ease with which they deal with the abnormal does not refute the objections to their views which we have already considered.

It behooves us, therefore, to consider whether, after all, the self-psychology may not offer the best way out of the tangle. The following considerations are offered, in the hope that they may shed light on the situation.

The essence of self-psychology is the assertion that all consciousness is in the form of self-experience. It does not need to hold that there is only one possible self in connection with every physiological organism; it does not need to hold that every such self is permanent or consciously related to the "normal" self; much less does it need to hold that every self-experience is immortal (a point that seems to trouble many).

Hence, self-psychology may well recognize that there are or may be other streams of consciousness than that of the normal self, connected with one human organism; the point insisted on is that every such stream or process is in the form of a self-experience, however brief, abnormal or transitory it may be.

These other experiences, to which the name *subconscious* is given, since they are not integrated with the normal self-experience, are not a part of the normal self (for only its experience belongs to it), but rather a part of its environment, like the physiological organism, the social order, the world of nature. The environment is intimately related to

the self; it causes many of the self's processes; it responds to many of the states of the self; but, if consciousness means anything, it is absurd to say that that is a part of my consciousness which is not experienced to be a part of it. And we surely experience neither our subconscious nor our brain nor other persons nor things as parts of our consciousness. We refer to them as something other than our self-experience.

The self-psychology leaves many problems to metaphysics. The value of the various selves, normal and abnormal and their place in the cosmos are points on which no psychology is competent to decide.

§ 10. THE MIND-BODY PROBLEM

In our study of the problems thus far we have gained an introductory view of bodies and of minds. We may at this point profitably sketch the possible theories of the mind-body relation.

If the theories be arranged on the principles adopted in this book, we shall begin with those that emphasize physical things and proceed toward those that emphasize consciousness.

Materialism is the theory that explains mind in terms of body (*i. e.*, physical things). Pure materialism holds that mind is a form of matter; behaviorism, for instance, is a materialistic theory. Modified materialism holds that mind is wholly an effect of body, and hence is called epiphenomenalism. We have examined behaviorism and shown that it or any other possible form of materialism is a very improbable hypothesis, for the following reasons: all knowledge of matter is dependent on the validity of mind and its thoughts, the properties of mind are, as we have shown, utterly different from those of matter, and it is far more

probable that physical things are due to a Supreme Mind, than that all mind is due to physical things.[1]

Parallelism has been suggested as a solution of the difficulty. Parallelism is the theory that mind and body are two parallel series or processes, such that for every state of mind there is a contemporaneous state of body, but that mind causes no change in body and body no change in mind. This theory preserves the reality of both mind and body; and keeps each a closed system, thus doing homage to the hypothesis of the conservation of energy; for if energy should leak out from the physical system into the system of consciousness, some actual physical energy would be lost, and the total amount of energy in the physical system would not remain constant.

Parallelism thus patches up a truce between psychology and physics, and recognizes the force of the philosophical objections to materialism. But this truce, like the peace of which Nietzsche speaks, is but a means to new wars. Is it conceivable that the universe is forever split into two disparate orders, each of which is powerless to affect the other? Is it conceivable that if mind were blotted out, body would compose the plays of Shakespeare, would speak and write the words of Einstein?[2] Is it conceivable that if bodies were blotted out mind would still see the faces and forms, the earth and sky of our every-day experience? Is it conceivable that mind has had no influence on the evolution of body or body on the evolution of mind? Would this hypothesis not split our world in two? Yet parallelism asks us not alone to conceive but even to accept such an incoherent world as the true world. That this hypothesis could ever

[1] See Chapters IV, VII, VIII and IX.

[2] The so-called automaton theory, based on parallelism, holds that this would be true!

be entertained by great minds is a tribute to human ingenuity in the presence of a difficult problem, but it would surely be better to adopt no view at all than so unreasonable a one!

Realizing the objections to extreme parallelism, certain of its advocates seek to pass the impassable barrier that their theory has created by what is called the double aspect theory. This theory holds that the situation described by parallelism is true, but that it is to be explained by assuming that mind and matter are two aspects of one and the same fact; just as an orange looks yellow and tastes sweet, but is only one orange, so reality looked at in one way is matter, in another, mind. This theory may take numerous forms: it may say that my mind and my brain are different ways of looking at some *tertium quid* that is neither mind nor brain; or that my brain is really mind, apprehended by the senses; or that my mind is really my brain, experienced from within. No other combinations are possible. In every case these theories add to the puzzle of why the universe should express itself in two different ways which have no effect on each other, the further puzzle of how two different objects, with entirely different properties, may be said to be one and the same. The *tertium quid* makes things still worse by adding an unintelligible hypothetical entity to explain the difficulties in experience. No form of parallelism is satisfactory.

Neutral realism is a recent attempt of the so-called American new realism [1] to find a way out. Together with most modern thinkers, these new realists hold that both materialism and parallelism have failed to solve the problem. They apply to the mind-body problem the results of their general philosophy, based on an exclusively analytic method and on an epistemological monism. According to them, the dis-

[1] See the volume by Holt and others, *The New Realism.*

tinction between consciousness and physical things is not ultimate, but everything that makes up a mind or the world of things is capable of being analyzed into "neutral" terms and relations, *i.e.*, into entities that are neither peculiarly physical nor peculiarly mental. We find them in our minds and also in the physical world. These neutral entities such as the points into which mathematics analyzes space, the quality blue, the relations to-the-right-of or more-than, if grouped in certain ways are physical objects; a peculiar grouping of these same entities (in relation to a nervous system) is called consciousness. Just as one point may be in two lines at their intersection, so the same object may be both in the physical world and in mind. There is thus no ultimate distinction between matter and mind.

This system is, however, in unstable equilibrium. Scarcely any two neo-realists fully agree in their interpretation of consciousness. Based as it is on epistemological monism and exclusively analytic method, it is open to the criticisms that have been directed against these standpoints; and it fails to overcome the positive arguments in favor of a self-psychology. Neutral realism is an interesting experiment in philosophy, but it probably does not open a path toward the better understanding of the self.

Interactionism is the only other theory that has been proposed. It is the belief that mind and body act on each other; that sometimes the initiative comes from one side, and sometimes from the other. This is what the common man takes for granted; and for once he may be right! It is interesting to note that after all, most of the theories that we have been discussing tacitly admit interaction. Materialism, behaviorism, neutral realism, all grant that mind (whatever it may be) affects body (whatever it may be); and *vice versa*. Parallelism and epiphe-

nomenalism are the only views that entirely deny it; and we have seen into what difficulties they fall.

Experience speaks in favor of interactionism. If the word *cause* has any meaning, it is just as true that we observe causal relations between mental and physical states as that we observe them within the physical series. The function of mind in evolution, the works of mind in the monuments of civilization, the facts of psychotherapy are evidence too clear to be denied.

Since interactionism is patently demonstrated, why should any one be so absurd as to question the simple fact that mind influences body, and body influences mind?

Let us consider three outstanding arguments against interactionism.

First, it is held that two beings so different as mind and body cannot be conceived as interacting. If mind be entirely non-spatial and its nature is to be conscious, and if body be space-filling and its nature is to move in space, how can any consciousness lay hold of matter to move it? How can matter, aiming ever so carefully, hit a consciousness that is nowhere in space? This is a real difficulty so long as mind and body are regarded as belonging to utterly different orders of being. But if we adopt the hypothesis suggested in the chapter on Physical Things and regard body itself as the expression of a Supreme Mind, the difficulty vanishes; for the problem of interaction between mind and body becomes the problem of the interaction between human minds and the Supreme Mind, and nature is, as Berkeley says, the divine language. The utmost that remains is the right of physical science to treat spatial relations and ignore the part played by consciousness in the world.

The problem of interaction between minds is itself no simple one to solve, but there must be a reasonable solution,

for to deny that minds can somehow interact is to render our whole experience unintelligible. Even Leibniz, who tried to shut up minds into monads that "have no windows," granted that each monad is in communication with God, "the Monad of monads," and has a window open toward him.

Secondly, it is said that interaction violates the physical law of the conservation of energy,—the theory that the amount of energy in the universe is never increased or diminished. Interaction asserts that the physical world is affected by the mental; and that work is therefore done in the material order by immaterial causes, a fact which would appear to mean an increase in the amount of physical energy in the universe. When body affects mind there would appear to be a loss. In answer to this, it has been suggested that the gains and the losses would be relatively slight and thus would in the end offset each other. It is, however, probably better to adopt a different approach. The law of conservation of energy is, like all physical laws, intended for application to a physical system. The universe as an organic and interacting whole is more than a physical system; it includes minds, and physics has nothing to say about minds. The conservation of energy as an abstract law may be true of the universe ideally conceived as a physical system; but not true of the universe as a whole, which contains minds as well as bodies.

Thirdly, mechanistic physiology maintains that the hypothesis of mental action is quite unnecessary. It holds that every human act has a complete and adequate physiological explanation. The muscles cannot move unless directed by the nervous system; the nervous system does not act unless stimulated peripherally or centrally, and every stimulus is physical, and its pathway can be traced. There is something compact and persuasive about this view; something over-

powering too, for it comes from the laboratory. But if we stop to think before we consent to be overpowered we shall perceive that it is after all a mere begging of the question. The catch lies in the assertion that every stimulus is physical. No physiologist can prove that this explanation of the origin of central stimulation is correct; he is studying physiological facts and will observe only physiological facts. The problem cannot be solved by physiology alone, but both the physiological and psychological facts must be considered.

It is significant that the case for interaction rests on factual considerations chiefly and on taking all aspects of experience into account; while the case against it rests on theories that are valid for physical aspects of the world, but are not valid for reality as a whole. Interactionism, then, would appear to be the true theory.

§ 11. IS PERSONALITY AN ADEQUATE PHILOSOPHICAL PRINCIPLE?

Every thoughtful person wants to know all that human reason can know about the "value and destiny of the individual," and about whether the universe is friendly or indifferent to the ideals that we human persons cherish. For us few questions can be more important than the one: Is human personality something that can be regarded as real and as a clew to the infinite real that lies beyond our little selves; or is it merely an incidental product of an order that has no mind and no value? Does the universe know what it is doing? Is the source of all reality a mind, a person that thinks and knows and values? This is the profoundest problem of life, which will not be silenced as long as the human mind can think.

The results of the present chapter are, therefore, of

great philosophical consequence. If associationalism, or behaviorism, or any form of materialism were true of the human mind, then it would be impossible to regard mind or personality as the source of being. For these views all persons are products of what is not a person; all mind must be explained in terms of the non-mental. Most forms of parallelism, likewise, exclude mind from a central place in reality. Parallelism regards mind as an impotent companion of matter, helpless ever to reach or to affect its material counterpart. The old soul-psychology [1] would make the supremacy of mind in the universe verbally possible, but its unintelligibility destroys its value as a philosophical hypothesis. The personalistic or self-psychology, on the other hand, is theoretically compatible with a universe in which mind may either be or not be supreme. It has the philosophical advantage of not closing the door to further investigation.

There remains, then, the question, Is consciousness as self or person a principle which offers a clew to the nature of the universe as a whole? In our discussions of physical things, of universals and of values, we have discovered grounds for accepting this hypothesis. Other reasons will appear in the later progress of our study. Let us now examine the chief objections that have been leveled against personality as a philosophical principle. If any of these objections are conclusive, every attempt to construct a personalistic metaphysics [2] must be abandoned. If such an attempt is doomed in advance to fail, the sooner we find it out, the better.

(1) Anthropomorphic Character of Personalism. Some hold that personalism is to be condemned as anthro-

[1] The author has no objection to the use of the term "soul" as an equivalent to "self," "person," or "mind," provided there is no touch of the old transcendent soul suggested by the word.

[2] Personalism is the name of any theory that makes personality the supreme philosophical principle.

pomorphic. To interpret reality as personal is, they think, the mere self-assertion of the human race. Ever since Xenophanes acutely remarked that "the Ethiopians make their gods black and snub-nosed; the Thracians say theirs have blue eyes and red hair"[1] intelligence has balked at ascribing to God a body. But many have felt that it was equally anthropomorphic to ascribe to him a mind. Yet there has been a strange oversight in the thinking of such critics. They have seemingly forgotten that everything they say about the universe, about matter, or mind, or truth, is an assertion that something in reality is truly described by something in our minds. In other words, all knowledge is anthropomorphic. We must, it is true, distinguish vicious anthropomorphism from the valid form. The vicious kind asserts without evidence or reason, on merely instinctive or traditional grounds, that there is a spirit in the tree because there is a spirit in my body; the valid form asserts that what I find in me as the most coherent and reasonable thought that my mind can form is true of reality,—or as near truth as I can reach. To condemn personalism because it uses what we find in man to understand what is beyond man is most superficial and unreasonable; the same logic would condemn all science and all objective thinking.

(2) The Fragmentariness of the Self. In the course of the chapter the fragmentariness of the personal life has been discussed. If persons are as fragmentary, intermittent, and incomplete, as experience shows, how, some ask, can eternal reality be personal?

The personalist may reply that one of the greatest merits of personality as a principle is its time-transcending property; the fact that it experiences the most diverse fragments as belonging to one identical personal life. Further, he

[1] Burnet, *Early Greek Philosophy*.

would insist that his conception must not be treated crudely and uncritically. Personalism does not mean that ultimate reality is just like your mind and mine with all their defects. It holds, rather, that our incomplete and fragmentary minds give rise to an ideal of a full and complete personality, that this ideal is the only one that fulfills the demands of coherent thinking, and hence that the perfect personality is real.

(3) THE DEPENDENCE OF MIND ON BODY. Every theory (except parallelism) holds that mind is in some sense dependent on body. How, then, asks the impersonalist, can body be interpreted in terms of mind? The personalist, of course, admits that the human mind is very intimately dependent on the human body; he never thought of picturing mind as independent of its environment,—social, physical, or physiological.

The significance of the dependence of mind on body is, however, entirely contingent on what body is. If body, as we have found reason to believe, is itself an expression of the Supreme Mind, a human body is simply a point of interaction between the Supreme Mind and the human mind. The dependence of mind on body is, therefore, no difficulty for personalism unless a materialistic view of body can be established.

(4) SELF AND NOT-SELF. A difficulty is found by some in the very nature of selfhood. A self is always opposed to a not-self; the self must know something, act on something other than itself. Epistemological dualism appears to assert this very thing! But the difficulty here is based on an insufficiently analytic view of the knowledge relation. A self, in order to know and be, does not need to refer to a not-self; epistemological dualism involves only the belief that knowledge refers to something beyond the knowing process. When I know my own sensations, or hopes, or yesterdays, the act

of knowing and the object known are distinct; yet both fall within the self. If the universe be, as personalism contends, a society of persons, the object of knowledge is always a real fact, distinct from the act of knowing, either within the knower or in some other person, but it is never anything utterly other than all selves, for everything that is belongs in the experience of persons.

(5) SOCIAL ORIGINS OF PERSONALITY. Self-experience arises, it is said, only in society, and hence it cannot be ultimate. This is a strange argument to adduce against a theory that regards the universe as a society of persons. No personalist denies that finite persons are dependent centers. The social nature of personality is rather an argument for personality as an organic and connecting factor in the world than an argument against it!

(6) THE SUBCONSCIOUS. The facts of abnormal psychology are often cited as disproving that personality is a genuine principle of explanation. This point has already been discussed earlier in the chapter and does not need to be repeated here.

It is not, then, impossible that consciousness contains the clew to reality. But philosophy should not come to any hasty conclusion. In the next chapter a survey of the various possible world-views will be given as a guide to the interpretation of the results thus far achieved.

CHAPTER VII

THE CHIEF PHILOSOPHICAL WORLD VIEWS

§ 1. INTRODUCTORY

If coherence be the criterion of truth, the mere examination of separate aspects of reality—things, universals and values, consciousness—will not lead to the whole truth. The lover of truth does not inquire merely, What does this or that particular mean? He asks also, What do particulars mean in their relation to experience as a whole? Philosophy therefore seeks not for fragments, but for a world. This chapter will consider the chief world views that are seriously entertained by modern thinkers. The treatment will necessarily be a condensed survey.

§ 2. ON WHAT DO ALL WORLD VIEWS AGREE?

After the taste of philosophical differences that the reader of the previous chapters has had, he may be unprepared for the idea that all philosophers agree about anything. Yet if one uses the words *all* and *philosophers* in a judiciously relative sense, one may justly say that all philosophers base their world views on a few common presuppositions.

All agree, for example, that experience as it comes is the starting-point of philosophy. All agree that this experience needs to be criticized if meaning is to be found in it. All agree that thinking is a necessary tool, and that thinking

is better than not thinking. All agree that some truth is at least relatively attainable. Even the skeptic, if he appeal to reason and not to emotion, has to grant this. All, save skeptics, hold that the body of known truth is capable of indefinite increase and improved interpretation. All agree in rejecting solipsism and in holding that something exists beyond the experience of the human individual; that it is impossible to reason without assuming the existence of other human selves and the world of nature,—at least, impossible to reason about experience as a whole. No philosopher of any importance among the ancients or the moderns has ever denied any of these common propositions; and they may be regarded as substantially axiomatic. Without them, coherent thinking is impossible.

It may be further remarked that all philosophers, with a few notorious exceptions, have agreed in reverence for the higher values,—the true, the good, the beautiful, and the holy. They have been men of lofty devotion to ideals and of noble character. A study of the lives of the philosophers reveals scorn of the petty and the merely temporal in life, loyalty to what is truly eternal.

§ 3. ON WHAT MOST IMPORTANT POINTS DO WORLD VIEWS DISAGREE?

It is evident that the agreement of philosophers does not go far or last long. Even a list of disagreements, such as follows, will be the subject of further disagreement; for some will contend that the most significant issues have not been selected. The points will be stated in problem form.

(1) Is a World View Possible? The position that it is not possible is taken by skepticism and positivism. Most other philosophies would hold that it is possible.

(2) Is the World to be Viewed as One or as Many? Granted that a world view is possible, a swarm of problems is on us. Yet the really fundamental ones are not so numerous as might be supposed. The problem of the One and the Many, as it has been called, is certainly one of the most persistent and important. From Heraclitus and Parmenides to Bergson and Eucken, James and Royce, Russell and Bosanquet, the question has been a divider of spirits. It has been perhaps the central interest of oriental philosophy. Is reality one or is it many? The defenders of the "one" are called monists, of the "many," pluralists.

(3) Is the World to be Viewed as all of One Kind of Being, Or is it of Two or More Different Kinds? If this question be answered, "All of one kind," the answerer is a monist. His monism is, however, a qualitative monism, to be distinguished from the quantitative monism mentioned under (2). If the answer be, "Of two kinds," the theory is dualism; if it be, "Of more than two kinds," the answer is qualitative pluralism.

(4) Is the World Friendly or Indifferent to the Highest Values of Human Experience? This is the ultimate question of philosophy. It is for an answer to this question that the human being (as distinguished from the pure intellect) studies philosophy. He has a right to expect some answer from that field of thought which seeks to interpret reality as a whole. The view that regards the world as friendly to values is often called idealism; and the view that regards it as indifferent, materialism. This use of terms should not be confused with numerous other meanings of the same terms.

These four problems will now be discussed in somewhat greater detail.

§ 4. IS A WORLD VIEW POSSIBLE?

To this question most philosophers would answer in the affirmative. They do not mean, as their tone sometimes leads the bystander to infer, that they believe that their own world view is a final account of all that is, has been, and will be. They mean only that it is reasonable to have a world view; indeed, that any philosophy which aims at less is essentially unreasonable, for it is not facing all the facts and problems. Philosophy in general is gnostic, not agnostic; it believes that knowledge is possible, that a world view is at least progressively attainable.

A negative answer is, however, given by at least two types of philosophy, skepticism and positivism.

Skepticism denies the possibility of a world view because it denies the possibility of all knowledge. Its self-contradictory character has been discussed in Chapter III, to which the reader is referred.

Positivism also denies the possibility of a world view. Positivism is the name given by Auguste Comte to the belief that knowledge is confined to sense objects and their laws, and hence that knowledge of metaphysical reality is impossible. There are obvious attractions in this view; but there are serious defects in its logic. The existence of conscious selves carries us into the realm of the supersensuous. Further, no positivistic veto is adequate to forbid investigation of the larger meanings of life. The positivist is interested in the facts of sense; so is every thinker. But the facts of sense are not all the facts; science, universals, values, persons, all point to other facts or hypotheses. No standpoint can permanently survive if it rest on a demand that we confine attention to a part of the facts. Positivism is a good resting-place for the spirit wearied in its search for truth;

but it is only a temporary resting-place. "He hath set eternity in their heart." Man must strive for a world view, even though "he cannot find out the work that God hath done from the beginning even to the end." The difficulty of the task is only an incentive.

§ 5. IS THE WORLD TO BE VIEWED AS ONE OR AS MANY?

(1) MONISM (SINGULARISM). The belief that the world is one individual being, of which all persons and things, universals and values, are parts is called monism. Since the term is also employed in other senses, as epistemological monism and qualitative monism, some object to its use, and James Ward has substituted *singularism* for this meaning of monism. Both terms continue in use.

If one is a monist, or singularist, in this (quantitative) sense, one is expressing an opinion only about the number of individuals in the world, not about the kind of individual this may be. A singularist must hold that reality is one; he may regard it as one vast energy, one complicated material thing or machine, one person, or one unknown and unknowable mystery. As singularist, however, he is interested alone in maintaining the unity of being; he does not yet raise the question of its quality.

There are considerations arising from the nature of thought that point toward singularism. Truth, logic shows, is one coherent and all-inclusive system. Why then is it not reasonable to infer that reality, the object to which truth refers, of which it is true, must be one coherent and all-inclusive individual? Further, an examination of the world as revealed by experience shows that we must regard it as a system. A change anywhere leads to changes elsewhere.

Every part affects and is affected by every other part. Our world is one interacting system. How, asks the singularist, can it be one system unless one and the same individual is present in all the parts as cause of their interaction? Reality thus comes to be regarded as one all-comprehensive being,—the Absolute. The Absolute is all that there is. Nothing can exist outside of or apart from it. All being is determined by and included in it.

This sort of argument makes a strong appeal to many minds. The type called "tender-minded" by James and "introverted" by Jung [1] is interested in general principles, truths, universals, rather than in the concrete objective facts that engage the tough-minded extravert. Certain religious mystics, also, are attracted by the conception that all is one, and they often lose themselves in rapt communion with the one ineffable reality in which they and all things live and move and have their being.

(2) PLURALISM. The pluralist looks at things very differently from the monist. He holds that reality consists of many individuals,—it is hard to say how many—which could never be regarded as members of one and the same being. The pluralist views the monistic arguments as formal and *a priori*. He is interested in the concrete facts of experience. The monist is a rationalist, the pluralist an empiricist. The pluralist, therefore, regards every fact, every thing, every person, as having its own inalienable being. He may admit that there is a certain coherence in reality, but this, he thinks, is due to the way the many act. The pluralist is often an advocate of freedom of the will; he finds many centers of self-determination in the universe. If finite freedom be real, it is the functioning of the many, not of the one. The pluralist considers himself more open-minded than the

[1] See James, *Pragmatism*, and Jung, *Psychological Types*.

monist. He follows the facts, in all their variety, wherever they lead. The monist, he thinks, is more dogmatic, for he insists that all must be one, no matter what the facts are.

(3) A Synthetic View. When two extreme positions come to expression, it is probable that there is some truth in each of them, and that the truth will be a synthetic or synoptic view. Such a synthesis of monism and pluralism is possible.

There are real difficulties in monism. Singularism does not follow logically, as absolutists have supposed, from the coherence theory of truth, unless epistemological monism can be shown to be true. To say that truth is coherent means that contradictories cannot both be true, and that there are systematic interrelations in reality. Yet there might well be interrelations among terms or beings that are not the same individual or parts of the same individual. Extreme monism leads naturally to the position that every part is completely determined by the whole, thus denying any sort of freedom, initiative, or novelty in the parts. It leads to what James has characterized as a "block universe." If the one be conceived religiously as God, there is the difficulty of viewing finite sin and evil as a part of God. If it be conceived as a self, there is the irreconcilable difference between the point of view of the Absolute, which is all-inclusive and all-wise, and the point of view of the finite, which is ignorant and limited; the question arises, How can the Absolute Self include in his life my ignorance and limitation, experienced just as I experience it? Extreme monism is therefore unsatisfactory.

Extreme pluralism, on the other hand, is not much better off. If reality be made up of genuinely independent beings, the fact of their relation and interaction is nothing short of miraculous. To say that two beings are independent and yet

are related is strangely like a contradiction; and to say that if one individual does something, another individual will do something sounds like a very precarious prediction, unless there is more real connection between them than extreme pluralism grants. Yet if science have any validity, reality must be regarded as related and interacting. Such considerations—urged, among others, by Lotze, Royce, and Bowne—are not lightly to be cast aside. Extreme pluralism is as difficult, as impossible, as is extreme monism.

The solution of the antinomy in which thought finds itself is not to be found in a despairing skepticism, which is too often the reaction of a weary mind to a difficult problem. It should be found rather in a view that recognizes the truth in both monism and pluralism, while avoiding the errors of each.

In some sense there must be one fundamental source of being and energy in the universe in order to account for the relations and interactions that we find. Yet perhaps in physical things and certainly in consciousness there are facts that cannot reasonably be fitted into a monistic system. In conscious life there seems to be a unique individuality that no one else can experience or possess as I possess it; not even an Absolute Mind can include me, just as I am, as part of itself. Hence the truth in pluralism must be recognized, as well as the truth in monism.

The view that seems best to meet these conditions is the standpoint of personalism.[1] Personalism faces the facts with the hypothesis that the unity of the universe is due to one Supreme Person or Mind, so that all the laws of nature, the relations and interactions of things and persons are dependent on his will and purpose. If unity be conceived as the

[1] Sometimes called theistic monism, because it holds that the unity of the universe is to be found in God.

expression of mind, such unity is compatible with as much difference and plurality as mind is capable of. It is also compatible with the existence of separate finite persons, whose being is not part of the Supreme Person, but whose separate and relatively independent existence depends on the purpose of the Supreme Person.

It appears that any other attempt to solve the problem of the One and the Many involves a surrender either of the unity or of the plurality of our world of rational experience. We have—apart from personalism—either a block universe or a sawdust universe. Monism surrenders to the claims of thought, pluralism to the claims of experience; personalism enlists both thought and experience in its ranks.

Even so, some cautious mind may reply, Personalism may not be true. Perhaps it is the best solution we can think of at the moment. There may be a better one just around the corner. Such caution is valuable if it be an incentive to more thorough and circumspect thinking; but if it be used to paralyze thought and bring the mind to a standstill, it is insidious and worse than useless. The present argument should not, then, be regarded as final; but it should be tested in the light of thought about other aspects of experience.

§ 6. IS THE WORLD ALL OF ONE KIND OF BEING, OR IS IT OF TWO OR MORE DIFFERENT KINDS?

The problem about the kind of being, substance, or stuff of which reality is composed is an ancient and fundamental one. It may be answered in any one of three different ways (already defined),—the monistic, the dualistic, and the pluralistic.

In seeking an answer to the problem about the quality of being, we cannot take the testimony of experience as decisive; nor can we take abstract reasoning as authoritative. Thought about experience as a whole is the final court of appeal. Philosophy is neither dumb experience nor speculative fancy; it is rational interpretation of the facts. Appearances are all in favor of qualitative pluralism; but thought finds law and unity behind the differences of what appears. It seeks to understand the reality of which appearances are only a fragmentary glimpse, the noumenon that is implied by the phenomenon.

If thought is the final criterion, things look better for monism. The tendency of science and philosophy is to oppose to the pluralism of experience the monism of thought. The aim of scientific thought is to reduce the apparent qualitative differences to a common denominator, so that quantitative comparisons may be made. Philosophy as a unified world view also tends greatly to reduce the apparent qualitative differences. Thales interpreted all of nature as being various forms of water; and to-day philosophy often regards reality as consisting of one kind of being only, such as energy or mind. Nevertheless, not all philosophy has followed the monistic highway.

(1) Pluralism. Many thinkers have been so impressed by the differences among the objects found in experience that they have given up hope of trying to explain them as manifestations of any one kind of being. Among the ancients, Anaxagoras held that there was an infinite variety of elements. Yet after he had thus separated and dissected the living whole, he found it necessary to devise some way of bringing the parts together again; and so he proposed *Nous* or Reason as the governing and unifying power. He was not a pure pluralist, for he held that all the qualitative

differences became significant only in relation to the *Nous,* which is qualitatively one, namely Reason.

Other thinkers have been more purely pluralistic. Modern pragmatism as expounded by William James in *A Pluralistic Universe* is as pluralistic as could be desired. "The world," it exclaims, "is so full of a number of things" that there is little for thought to do but to take the census. How can we say that colors and sounds, numbers and murders, cabbages and kings, are really forms of one underlying quality of some sort? The kinds of experience are indescribably many. There are relations among the different kinds, it is true. Yet no yearning for an ideal of unity or uniformity warrants us in saying "Like, like" when there is no likeness. Difference is the patent fact of experience. Hence many cling to pluralism, because they regard it as nearer to the facts and less speculative than monism.

(2) Dualism. Others follow more closely the guidance of the methods of science. They hold that the apparent differences are actually reduced successfully to different combinations of like elements. Biology does it with the cell as a unit; chemistry and physics together lead from atom to electron. The whole tendency is toward final qualitative likeness. But, as Descartes pointed out, there is one difference that it is very hard to reduce, namely, the difference between mind and matter. Mind we conceive as conscious experience; matter as something solid, moving in space. The properties and laws of mind and of matter are utterly different. Hence, Descartes and those that agree with him have held that mind and matter were irreducible; and that the world is made up of two ultimately different kinds of reality. Descartes, it is true, had an uneasy feeling about this situation, for it rendered interaction between mind and matter unintelligible to him. He evaded the difficulty by

locating the seat of the interaction in the pineal gland. His uneasiness is also expressed by his doctrine that body and mind, although distinct, are relative substances which depend on God, the only absolute substance. Hence, in the end, his dualism is surrendered and he becomes a theistic monist; mind is the ultimate quality in his universe, after all. In the form in which Descartes leaves the problem, his solution is not satisfactory. The relation between mind and body is left a puzzle that is solved only by an arbitrary appeal to God.

(3) MONISM. As was said at the outset of this discussion, the tendency of thought is toward monism. If we take the problem as set by dualism, it may be solved in one of three ways. Perhaps the one quality of reality is "neutral," neither mind nor matter, but something more ultimate than either. If this neutral quality be regarded as something unknown, then the theory would be called agnostic realism,—a view that does little to interpret our experience. If it be regarded as "subsistence," and discovered in the analysis of experience, then we have the neutral entities of American new realism, which are impersonal and immaterial abstract concepts.

Again, it may be that mind is a form or expression of matter, and that all reality has only material qualities. This view is naturalism, the ground taken by behaviorism and other materialistic views.

Finally, it may be that matter is a form or expression of mind. This is the position of idealists, whether they incline toward absolutism or toward a more pluralistic personalism. Idealism holds that the dualism of matter and mind is incoherent and impossible; that the "neutral" way out is an attempt to explain the real and concrete in terms of abstract concepts which, after all, are relative to the purposes of minds; and that the materialistic solution not only flies in the

face of consciousness but is ultimately self-contradictory.[1] It argues that what we mean by matter is adequately described by a theory that regards it as the functioning of the rational will of a Supreme Mind; no property of matter is thus denied or evaded. What science calls electricity, philosophy calls the actual conscious will of God. Extension, solidity, laws, are the rational experience of the Supreme Person, the active energizing of his will. We know what space is for conscious experience, and that (idealism maintains) is just what space really is,—space experience. The unity of real space is the unity of the Supreme Mind that is expressing itself under the space form. This view of matter as the purposive functioning of the Supreme Mind solves the problems of dualism, makes interaction between mind and body reasonable, and unifies our view of the cosmos. The case for idealism is strong. Further examination of evidence for and against idealism will occur later in this chapter.

§ 7. IS THE WORLD FRIENDLY OR INDIFFERENT TO THE HIGHEST VALUES?

The question about the fate of values not only most frequently drives men to philosophy; it also, unfortunately, drives men away from it. The philosopher should heed the poet's words,

> "Hold thou the good: define it well:
> For fear divine Philosophy
> Should push beyond her mark and be
> Procuress to the Lords of Hell."

[1] Some of the chief reasons for this statement appear in § 9 of this chapter and in Chapters VIII and IX. See also M. W. Calkins, "The Personalistic Conception of Nature," *Phil. Rev.*, 28 (1919), 115-146.

The philosopher has no more serious mission than to tell the truth, as he sees it, about the value of life. In Chapter V the general problem has been discussed. Here it is intended only to show the attitude of different world views toward the problem.

It is interesting that, while some philosophers hold that the world is friendly to values, and others that it is indifferent, none regard reality as malevolently hostile to value. There is much pessimism, but it is based on the indifference of nature to man. Theisms and atheisms there are, but no diabolism. Perhaps this is due to the unwillingness of man to regard himself as the object of eternal and infinite hatred. Is it not truer to say that the absence of diabolism from philosophy is fairly good proof that the view is too irrational to be worthy of serious consideration? Our choice, then, lies between an indifferent and a friendly cosmos.

(1) The World as Indifferent to Value. Skeptical and positivistic philosophies hold that, so far as we know, the world is indifferent to value. These philosophies, indeed, are themselves usually indifferent to the very problem.

Naturalism denies that mind is more than a temporary grouping of matter, and since value belongs to persons, naturalism regards value as a temporary material product. The universe is as careless of values as the ocean of the fate of the waves on its surface. A materialist may be a gentleman of honor and high personal ideals; but if he is, he has to regard himself as superior to the universe that gave him birth. His goodness and all human ideals and aspirations are a meteor's flash in the eternal darkness of space, or a fragile beauty that grows out of earth and returns unbeautiful to earth again.

Many types of realism that are not (or do not wish to

be considered) strictly materialistic are equally despairing about the cosmic fate of values. The new realism, says Perry, is a philosophy of disillusionment. If experience can be analyzed into neutral entities in relation, our spiritual life should be nurtured by no vain dreams of real and eternal value. There is as much value as we can find or can make; but man is only deceiving himself if he projects his ideals into reality and asserts that the universe cares about them.

Indeed, many realists feel that the value of life is greater if the universe be regarded as indifferent to value. They argue that if it be friendly, reality must be already perfect. All incentive to achievement thus disappears. But if it be indifferent, all value would depend on human effort, and the incentive to effort would then be incalculable. This position, however, rests on the assumption that a universe friendly to value is one which is eternally and changelessly perfect, a block-universe. Against views that make this assumption, realism is probably a wholesome protest. It may be, however, that the religions of redemption have a contribution to make at this point. They hold that change, improvement, redemption, are genuinely possible; but that they would not be possible unless the universe were friendly. For these religions, and for some philosophies, the goodness of the universe consists in no completed perfection, but rather in perfectibility. A living universe, they hold, is more perfect than a perfected universe that can grow no more. Friendliness to value may mean friendliness to development.

Any view that holds that man may fight his way step by step to the heights in a reality that is fundamentally indifferent to his struggle would make a great appeal to man's heroism or at least to his pugnacity; but it would suffer from the intellectual defect of making human values and ideals a far more miraculous and meaningless thing

than a view that sees in values some clew to what really is.

(2) THE WORLD AS FRIENDLY TO VALUE. One of the persistent facts about the development of thought is that what philosophers throw out of the door often comes back in through the window. The idea that the universe is friendly to value is such a persistent belief that it creeps into world views where it is in strange company.

A thorough-going empirical realism, for example, might be expected efficiently to exclude this belief. Yet there are few realists from whose thinking it has been wholly shut out. Two illustrations make clear what is meant. Ehrenfels, the distinguished Austrian specialist on values, is thoroughly realistic. But Ehrenfels concludes from his study of value —his grounds need not now concern us—that our value-experience presupposes the validity of belief in "the eternity of the psychic"[1] as the metaphysical minimum. He means that no thoughtful person could regard value as really worth striving for if all value were ultimately to perish. Hence, while he is not inclined to believe in God or in personal immortality, he feels that he must believe that consciousness and its values will forever continue to be developed in the universe. In this case, admission of a certain friendliness of the universe to values is extorted by experience from unwilling lips.

A second instance of the same fact is found in the neo-realism of Professor R. B. Perry. Professor Perry's philosophy of disillusionment rejects to the end many of the familiar beliefs of philosophy and religion about a friendly super-human power. It stoutly "repudiates every moral and spiritual ontology."[2] Yet when this philosophy looks ahead to the cosmic future, it refuses to be bound by "the narrow and

[1] Ehrenfels, *System der Werththeorie*, II, 173.
[2] R. B. Perry, *Present Philosophical Tendencies*, pp. 344 ff.

abstract predictions of astronomy" and greets "the residual cosmos" as "a promise of salvation." This assuredly does not mean that man can overthrow the laws of astronomy. It is the cosmos itself that may, after all, turn out to be friendly. It would be easy to criticize this ontology that is not and is spiritual; the point that concerns us especially is rather the fact that an optimistic metaphysics crushed to earth will rise again.

Philosophers find themselves puzzled by this phenomenon. A large group of earnest thinkers regard it as the collapse of thought. These thinkers hold that man is unable to endure his utter insignificance in the cosmos; and, although all his thinking logically implies that reality is impersonal and neutral to value, he nevertheless takes refuge in the skeptical hope that there may be a defect in his thinking, and perhaps, after all, personality and its values are an object of concern to the Mysterious Real. Desire celebrates a triumph over reason. The thinkers of whom we are speaking hold that if we permit reason to triumph over desire, the outcome will be some form of naturalism or realism.

Another large group takes a very different position. This group holds that the view of reality as indifferent to value can be developed logically only if one start with an abstract and incomplete view of what is real. If a thinker admit to his philosophical *sanctum sanctorum* only the data of sense and the methods of analytic logic and mathematics, he will never come out of the *sanctum* with more than he took in. If one begin with a fragment of experience, one cannot construct out of it alone a view of the whole. When such a thinker finds himself appalled by his conclusions and has recourse to some metaphysical minimum or residual cosmos, he is, indeed, in a state of logical incoherence; for his premises do not justify his conclusion. If, however, one should

seek from the start to take account of all experience, to give each aspect its due weight, to use synoptic as well as analytic method, then from the start persons and values will have a logical status, and the inference to a friendly universe involves no logical break and no collapse of thought. The group that favors this synoptic procedure consists mostly of idealists. It must be noted, however, that some idealists, like Schopenhauer, belong to the other group; and that some realists, like Spaulding, believe in the objectivity of value and belong in this group.

On this issue the absolute idealists and the personal idealists are at one. They agree that the elements into which we analyze experience are finally to be explained in terms of the wholes to which they belong; that, in general, the lower is to be explained in terms of the higher, not the higher in terms of the lower. Without a synoptic logic of coherence, and the hypothesis that the universe is friendly to our ideals, the ideal of truth, as well as the ideals of goodness and beauty and holiness, become subjective fictions,[1] and thought is impotent to grasp reality. If the universe be friendly to one of our ideals, that of truth, it is reasonable at least to consider the possibility of its being friendly to our other ideals.

Whatever the outcome of the debate between the two schools of thought, the theoretical and practical importance of the problem can hardly be exaggerated. The one intellectually intolerable attitude is to ignore the problem.

§ 8. SUMMARY: THE FUNDAMENTAL ISSUES

The discussion of the chapter up to the present time may be summarized as follows. There are two fundamental issues

[1] See Vaihinger, *Die Philosophie des Als Ob.*

that concern our world view most profoundly: the issue of skepticism *vs.* knowledge and the issue of realism *vs.* idealism. There are many other important problems; but these appear to be most crucial.

(1) Skepticism vs. Knowledge. The first of the two issues has been discussed at sufficient length, and reference may be made to our previous treatment of it. The outcome may be expressed in a few words by saying that the complete denial of knowledge cannot be maintained consistently by any mind; and that any consistent thinking whatever must treat some knowledge as actual and more as possible.

(2) Realism vs. Idealism. The other fundamental issue is that between realism and idealism. This issue has emerged in connection with most of the questions discussed in this book, and is one of the most persistent problems of the history of philosophy. It is also one of the most difficult to define accurately and clearly.

For the purposes of this chapter it will be necessary to agree on some use of terms, and it is admitted in advance that a degree of arbitrariness will attach to the definitions. They will not do justice by all realisms and by all idealisms. In particular the definitions will have to do only with the metaphysical question and will leave out of account the epistemological use of the terms.

Realism, then, may be defined as the world view that regards reality as extra-mental. That is, it holds to the hypothesis that physical things and perhaps also universals and values are entities other than and foreign to any mind, human or divine. The true being or source of being in the universe for realism is not consciousness, but something other than consciousness. For realism, in the last analysis, mind is the product of what is not mind; consciousness of the not-conscious; just as the fragrance of the flower appears to be

the product of what is not fragrant and its beauty the product of what is not beautiful.

Idealism, on the other hand, holds that mind is the most real and irreducible fact revealed in experience. It holds that all reality—physical things, universals and values, and consciousness—are, in the last analysis, forms, or activities, or expressions, or deeds of mind. Idealism does not mean that everything exists only in and for the individual or social human mind, and it does not dream of denying that physical things, universals, and values exist. It does, however, assert that the existence of nature and of all validity and value can be maintained reasonably and without contradiction only on the hypothesis that there is a Supreme or Divine Mind for and through whom the universal order exists, and who is being gradually apprehended by finite minds as knowledge increases and experience deepens.

Neither realism nor idealism can be proved or refuted by an appeal to experience as it comes. Each theory is an hypothesis, and the choice between them must be decided by thought, not by experience alone,—much less by prejudice. It would appear that, broadly speaking, every thinker must choose one or the other of these two positions; for mind either is or is not the ultimate explanation of the universe.

§ 9. REALISM

The realistic world view may take either one of two forms. It regards reality as non-mental; it may interpret everything in terms of matter and its laws or in terms of what is neither mind nor matter. The first form of realism may be called materialism or naturalism; the second form is that adopted by neo-realism.

(1) MATERIALISTIC OR NATURALISTIC REALISM. (a)

Arguments for Naturalism. The view that all experience can be interpreted as some form of physical reality has in its favor, first of all, the fact that physical objects bulk so large in our experience. Indeed, it would seem that all our thoughts, no matter how refined, have some relations to physical things and are somehow derived either from the hings themselves or from our conceptions of them. As Hume taught, so it appears: "ideas" are all derived from "impressions" of sense.

The sciences appear to justify the verdict of experience. They deal with "matter" and its motion; and using no other fundamental units, they explain the facts of astronomy and physics, chemistry and biology. The electron itself is a tiny grain of "matter," and the marvelous life-cell is "matter" moving, however intricately it may move. The inference seems near that if everything else can be explained in terms of matter and its laws consciousness will be. Physiological psychology shows detailed dependence of mind on brain; and metaphysical behaviorism is at least a hypothetical reduction of all mind to the motion of matter.

Naturalism is, further, a unified system. It reduces all reality to one kind of being and formulates the laws of that being mathematically. The success of this unification is proved by the predictions which science is able to make with detailed accuracy. While these predictions cannot yet be made in every field, the naturalist feels justified in hoping that his past successes will be indefinitely extended in the future.

(b) *Arguments Against Naturalism.* As has been pointed out in previous discussion, the method of naturalism is purely analytic, and hence is adapted to discover abstract aspects of truth, but not the truth about our experienced world as a whole.

For analytic and mathematical purposes, the concept of matter, on which the whole scheme of materialism is built, is useful; but it is very difficult, if not impossible, to define what matter really is. Suppose we say that matter is solid, has mass, is extended in space, moves in space; we have of course used terms derived wholly from our conscious experience, and our belief in matter derives its validity from a prior belief in the trustworthiness of our minds. The belief in matter thus drives us back to belief in mind as the basic certainty.

The belief in matter is no intelligible explanation of the facts. Matter may be said to be solid, extended in space. What is there about this concept to make the motion of matter intelligible? Why should mere solidity move? Why should the impact of one solid electron on another (or on its vicinity) result in the motion of another electron? In short, what is there about matter as defined to explain its properties as observed? There is no doubt about the laws of "matter"; there is no doubt about the fact that in dealing with physical things we are dealing with something real; but there is a great deal of doubt about whether the concept of matter is an intelligible explanation of the order of the universe. The order of the universe is there; and philosophy seeks for some conception that will interpret that order. "Matter" as defined fails to satisfy reason; there is no adequate connection between matter and its properties.

Naturalism is conspicuously inadequate to explain the facts of consciousness. Every one will admit that the predictive powers of science have not yet reached the stage where anybody's moods or the evening's plans may be predicted with any accuracy. The materialist might reply that the weather is only relatively predictable but that it is none the less material. The critic of naturalism would indeed err

if he were to rest his case on the issue of predictability. The real failure of naturalism lies in its incapacity to include the facts of consciousness, which were discussed in Chapter VI. Consciousness fills no space and cannot move in space, although it affects and is affected by "matter"; there is nothing in matter or its properties that can express what we mean by reason or purpose, choice or hope, value or self-experience. The naturalist must either deny the facts of introspection (and sometimes he will go to this extent) or he must radically modify his naturalism. Naturalism, then, rests on selected facts; it is an attempt to explain the whole of experience, including mind, in terms of a part, namely, a certain class of the objects of experience. It is true that any explanation must start somewhere, but an explanation cannot pretend to be all-inclusive if it omits some of the facts to be explained.

(2) Neo-Realism. By neo-realism, in this connection, is meant the analytic or neutral realism advocated by certain Americans, and recently favored by Russell. It explains all reality in terms of neutral entities and their relations. These entities are of the nature of universals. The theory is a type of modern Platonism.

(a) *Arguments for Neo-Realism.* This philosophy, as well as materialism, is based on science. It has, however, a wider and more secure foundation; for materialism takes the science of physics as its model, while neo-realism seeks for the logic expressed in all the sciences. This it finds to be the mathematical logic of analysis. The "complete" analysis of the new realism shows naturalism to be an incomplete analysis, and believes that it can do likewise by idealism. It penetrates beyond the concepts both of matter and of mind to the common terms and relations that underlie both.

Like materialism, also, it may lay claim to being a unified account of experience.

Neo-realism believes that it has made great advance in its solution of the epistemological problem. Its form of epistemological monism (panobjectivism) seems to synthesize dualism (that the object is independent of its being known) with idealistic monism (that idea and object are one). For an evaluation of the issues here involved the reader is referred to Chapter III.

(b) *Arguments Against Neo-Realism.* The new realism is even more obviously analytic in method than was materialism, and is even more obviously opposed to the synoptic method which it calls the organic theory of truth. It would be most instructive for the student to go through *The New Realism* volume, bearing in mind the distinction between analytic and synoptic method.[1] It is conceded on all sides that if the synoptic method be sound, the realistic analysis is not the last word of philosophy.

While less unintelligible than "matter," the neutral entities of new realism fail almost as completely as do matter and motion to interpret our experience. After the blows of the analyst have crushed the universe into neutral atomic dust, what is there in simple terms like "point," "instant" and the like to explain the teeming life of a universe? If the world is made up of unchanging terms, how do relations happen to change? How can there be interaction between these simple, changeless, neutral terms and their obviously changing relations? Or, to raise a different sort of question, even if we freely grant that the objects of consciousness may be analyzed, how can neutral entities explain the introspective facts of self-experience and of feeling? Satisfactory answers to these questions have yet to be given by any neo-realist.

[1] Professor Spaulding's *Defense of Analysis* and the *Appendix* are particularly recommended for this purpose.

Finally, it must be pointed out that the neutral terms to which the universe is reduced by this system are abstract universals, and all that was said against medieval realism in Chapter IV applies here. Whatever truth there is in nominalism is an argument against the new realism as well as against its scholastic form. Universals do not exist, or even subsist, in any neutral realm of being; their subsistence is simply their validity for thought. Neo-realism severs the "validity" from the "thought" and then seeks to explain the thought in terms of the validity; as though the roundness of my watch were to be considered apart from the watch and then used to explain its existence!

§ 10. IDEALISM

Materialism models its universe on physical things; the new realism on universals; idealism on consciousness. The realisms of modern thought have arisen as a protest against idealism, and idealism therefore suffers from being regarded as old-fashioned. If one cares a great deal about the latest styles in thinking, one may pretend to an interest in idealism only on the plea that one is a collector of antiques. The whole idealistic position is dismissed by many a mind in the making on the ground that it recognizes certain values that were believed in more than a hundred, nay, more than a thousand, years ago. There is danger in supposing that fashion is decisive, and hence not looking thoroughly into the merits of the case nor becoming aware of the current strength of the idealistic movement in philosophy beyond the range of one's provincial interests.

As has already been said, idealism is the belief that mind or consciousness is the truly real, and that everything exists only in relation to mind. In examining this view, certain

preliminary considerations will be first presented, and then the two main types of idealism will be briefly discussed.

Idealism appears to be strong where realism is weakest. Realism has been analytic in its method, and has tended to ignore or to deny the properties of wholes that are not to be understood in terms of the parts and their relations. One of the most important of such wholes that we meet in experience is the mind. Realism has always tended to explain the mind away; to deny or to minimize its peculiar qualities; to regard it as wholly a product of causes which do not have the property of consciousness or self-experience. The synoptic method of idealism and its recognition of mind as the clew to reality free it from the narrowness of realism. At this point, at least, idealism is, in the non-technical sense, more realistic than realism; for it takes into account realities that professional realism has pushed into the background.

It is, however, said by realists that idealism is weak where realism is strong, namely, in the full recognition of the facts of physical nature. Some go so far as to say that the existence of physical nature refutes idealism. This assertion, however, rests on a sheer misapprehension of the idealist position. Idealism in none of its historic forms has ever denied the existence of physical things or of the order of nature. It has merely asserted a particular theory about physical things,—the theory, namely, that things are not, in their inner nature and cause, mere lumps of moving solids, but that all the space and energy, solidity and motion, of matter is the functioning of some mind. No idealists have believed that each physical thing that we see had a "mind" of its own; some few, however, have held that nature was the expression of many minds (monads, as Leibniz called them); others, that only one mind, that of the Supreme Being, was manifesting itself in nature. No philosophical idealist, cer-

tainly none in the Occident, has ever meant to look at physical things and say that there is nothing there. Indeed, to look at them and to say, "God is there," as many idealists do, is far from denying reality to nature; it imputes to nature a more significant reality than realism knows of.

The view that idealism denies nature or that the existence of nature refutes idealism is, therefore, false and unjust in the extreme. Samuel Johnson, "striking his foot with mighty force against a large stone until he rebounded from it" and exclaiming, "I refute it thus" may be, as Boswell says, "a stout exemplification of the *first* truths of *Père Bouffier,"*—but he is no refutation of idealism.[1]

Nevertheless the objection to idealism that we are considering has in it a germ of truth. It has been too often the case that idealists have had a zeal for the eternal values that was not according to knowledge of the temporal facts; that they have been so concerned to save their own soul that they have lost the whole world,[2] and that the resultant theory has borne the aspect of a noble aspiration and a lofty devotion to value rather than that of a faithful interpretation of the facts of experience. Aspirations and devotions are, however, unenlightening unless they are defined, justified, related to the whole of experience. In other words, referring to the classification of methods in Chapter I, it may be said that the synoptic method of idealism is in peril of slipping into romanticism and of losing its grip on scientific and rational thinking. Rather should it be said that some idealists are in this peril; for there is nothing in the logic of idealism to sanction such excesses. On the contrary, idealism has always been a philosophy of nature as well as a philosophy of spirit and has derived many of its argu-

[1] Boswell, *Life of Johnson.* Globe ed., p. 162.
[2] This phrase is one of Professor W. G. Everett's.

ments from a consideration of material objects and the results of the sciences.

There is a marked tendency among current philosophical critics[1] to discredit idealism in advance by branding it as merely wishful thinking. Man longs for a beautiful and good universe, and idealism, such critics say, finds a more or less plausible expression for that wish. Idealism, then, is not a theory of reality, but a Freudian dream; not the naked truth about what is, but a lovely veil of hope cast over the cruel facts.

This sort of criticism is peculiarly subtle and, like any sneer, hard to refute. It does not seem to be fair play in argument to discount in advance everything that an idealist will say on the ground that it is, consciously or unconsciously, influenced by ulterior motives. The question of ulterior motive, after all, has nothing to do with the question of truth. Whatever my suppressed desires, my obsessions, may be, if I say that there are other persons or that it is a cool day, my statements cannot be refuted by a reference to the fact that I am abnormal, or that I like other persons and cool days. If what I say can be shown to be absurd, my mental derangement will serve as an explanation of my absurdity. But my mental derangement cannot be used (even if its presence be proved) to demonstrate that all of my beliefs are absurd. When the idealist is "refuted" by being told that he is unbalanced, he may be tempted to impute to his critic the principle of "No case, abuse the plaintiff's attorney."

It may be worth while, nevertheless, to consider whether there is any substantial truth in the charge. Are idealists in any special and maleficent sense led by their desires to

[1] Men like Santayana, Bertrand Russell, John Dewey, and R. B. Perry are here meant.

their conclusions? Desire is, in some degree, necessarily present in all thinking. Without desire to solve the problem, no problem has ever been solved. All reasoning is purposive. It is doubtless true that idealists have often been moved by an earnest desire to interpret the value and meaning of human life, the place and validity of moral, religious, intellectual, and esthetic experience. Doubtless also they have hoped that these values may be found to be more than merely subjective experience. If it is unphilosophical, romantic, and abnormal to indulge this hope, one must say that most philosophers and most serious persons of every condition in life have been unphilosophical, romantic, and abnormal.

The influence of such hope on philosophy would be pernicious if it led to an easy-going view of reality, evasion of fact or obligation, or belief that our wishes are to find fulfillment irrespective of the facts. Actually we find the contrary. Idealists have taken the position that fact, and all fact, should be faced; the fact of value experience, as well as the fact of physical experience, the fact of mind as well as the fact of matter. If some fanatical extremists have seen only things celestial, the idealist has himself been the first to say to them, "Why stand ye there looking into heaven?" On the other hand, the idealist has regarded the realist as the man with the muck rake, whose zeal for fact has led him to ignore the best facts. At any rate, idealism cannot be charged with choosing the easier way. The net philosophical outcome of realism tends to be a sense of cosmic weariness that easily lends itself to a relaxation of the sterner virtues and the nobler ideals of life or divides life into hopelessly separated realms of what is real and what is ideal. Idealism, on the other hand, weds the eternal and the practical, binds the human person to rigorous eternal

values, sets him on a career, both theoretical and practical, that is not merely more inspiring but is also more arduous and imperative than the career of the realist. If the realist acts as if the eternal values had a real claim on human life, as the finer realistic spirits have always done, he is thus bearing mute testimony to the reality of those values that his metaphysics would ignore.

Idealism, then, cannot be disposed of as a pleasing, self-indulgent wish.

Thus far we have been speaking as though idealism were one definite system. It is not. There are numerous forms of idealism, but they all agree in deriving their view of the universe from mind. Some (like Berkeley, Lotze, Royce, Bowne, etc.) lay stress on conscious personality. In so far as consciousness is made essential to reality, the view has recently been called mentalism. Consciousness is not the only trait of mind; it also seeks ends, attains goals. Some idealists, like Plato, Bosanquet and William Stern, appear to abstract from consciousness and fasten on this teleological aspect of mind as the one supreme key to reality.

Another type of distinction among idealists is also of theoretical importance. Unfortunately, our terminology is defective here, and objections may be raised to almost any pair of names used to designate the two views in question. The problem is whether reality is only one mind or is a group or society of minds. One might naturally say that the former is monistic and the latter pluralistic idealism. This nomenclature is unhappy, for the reason that the word pluralism implies that the many are eternally self-dependent. Personalistic theism, however, while refusing to view the many persons as part of the one Supreme Person, nevertheless regards their existence as dependent on his purpose.

Hence this view is neither monistic nor pluralistic. Or, the two types might be called pantheistic and theistic. Objection, however, could easily be raised to these terms. Pantheism usually connotes an impersonal totality, while the view that all is one mind may well regard that mind as a person. Further, the view that there are many minds is logically compatible with the denial of a God, as is evidenced by McTaggart's philosophy.

Since any terminology (save an arbitrary novelty invented *ad hoc*) is objectionable we must either get along without words, which no philosopher could think of doing, or use recognized terminology in an admittedly inadequate manner. Adopting the latter course, the following discussion will speak of absolute (or absolutistic) and personal (or personalistic) idealism. By absolute idealism will be meant the view that reality is one single mind or one unified teleological system; this view may, and often does, hold that reality is one self or person, so that there is a personalistic absolutism. By personal idealism, or personalism, will be meant the view that only persons are real and that there are many persons in the universe. For the sake of brevity, only the theistic form of personalism will be considered in this chapter.

(1) Absolute Idealism. In view of the fact that this *Introduction* as a whole defends the general idealistic standpoint, and personalism in particular, it does not appear necessary to go into the arguments for and against the different types of idealism at great length. A very brief and admittedly incomplete sketch will, therefore, be all the present chapter aims at.

(a) *Arguments for Absolute Idealism.* In other sections of this and other chapters the main arguments against mate-

rialistic and realistic views have been given. These constitute a negative argument in favor of idealism in general. The chief positive arguments for absolutism follow.

The coherence account of truth implies that, as truth is one coherent system, so reality must be one coherent system. The world as I experience it is fragmentary, disordered, meaningless. My own personality is intermittent and incomplete. Everything that I experience must be interpreted and related to a logical ideal if it is to be understood; and that ideal is coherence. Truth then, is one organic whole. Nothing could be regarded as independent of the whole without impairing the logical unity of the system. Only a mind, it is argued, could be such an individual whole as our logical ideal requires that reality shall be. Hence the universe is one all-inclusive, all-explaining, wholly rational mind.

For its complete vindication, absolutism must also appeal to the doctrine about knowledge that was discussed in Chapter III as epistemological monism. The absolutist admits that there appears to be a duality of idea and object in our ordinary knowledge; my idea and the thing or thought or principle to which it refers appear to be distinct. But this apparent dualism is said to be due to the defect of finite knowledge. The completely coherent truth must leave no reality outside as its object; it must include everything, idea and object, selves and things, in one experience. Further, the absolutist argues, the example of self-experience shows that the most certain and intimate knowledge is monistic. My self and my self-experience are not two different facts, but are identical. Thus, it is argued, the Absolute Self and its self-experience are one and the same fact; and that fact is the whole universe of reality.

"They reckon ill who leave me out;
When me they fly, I am the wings;
I am the doubter and the doubt,
And I the hymn the Brahmin sings."[1]

(b) *Arguments Against Absolute Idealism.* There is, critics of absolutism argue, a logical defect in seeking to locate the whole system of reality in one mind. This one mind can have no secrets from itself. The "point of view of the absolute" is that of transparent and wholly adequate completeness. There appears to be no logical objection to interpreting the world of physical things as the absolutist would do.[2] But there is serious difficulty in reconciling the point of view of the Absolute with the point of view of the finite self. The finite self is finite; is limited, wilfully evil sometimes, genuinely and ignorantly ignorant about most of the universe. How, then, can perfect knowledge and genuine ignorance be in the same mind? It is simple enough to reply that the Absolute includes and transcends our evil and ignorance; but the very fact that our evil and ignorance are transcended means that in the Absolute they are not what in the finite mind they are,—truly evil and ignorant. The Absolute cannot, then, include my finiteness precisely as I experience it; while an absolute mind could, indeed, know all about my finiteness, the experience of that mind could not be limited as I am limited without a contradiction that no dialectic can remove. The same general considerations also apply to whatever is really mine in my freedom.

Further, it may be argued that the epistemological monism on which absolutism depends is refuted by the very nature of the selfhood to which it appeals. It is true that self and

[1] R. W. Emerson, *Brahma.*
[2] The new realists would disagree with the text at this point. Cf. *The New Realism,* esp. the *Appendix.*

self-experience are, as the absolutist argues, identical. But it is equally true that coherent thought is impossible unless we adopt the hypothesis that there are other human selves. My individual selfhood and that of my neighbor cannot be understood as being truly merged in the absolute self without a surrender of the privacy and immediacy that is the very nature of what a self is. "I" am a conscious self that knows other selves, interacts with them, is dependent on the real universe, while remaining identical with myself and never sharing immediately the slightest fragment of my experience with any other self.

If the absolutist appeals to the fusion of split-off multiple personalities into one normal self as evidence that selves may merge, he is treading on dangerous ground; for, if this evidence is to have force, it must be based on the admission that the human and divine selves are now separate but may later flow into one by the absolute's autopsychotherapy. Yet this is not what absolutism means. It means that even now and eternally there is only one Self. If there be only one Self now, the critic must reply, then the testimony of my own self-experience that I am a separate and distinct consciousness is so utterly false that it becomes impossible to use selfhood any longer as a clew to reality. No other mind can include my selfhood without destroying it; and my mind and the other minds of my human world are not now merged into one unless our experience is utterly illusory; nor can they ever be thus merged without contradicting the nature of selfhood. There must forever be a duality between my mind (as long as it is what it is) and the other minds that I know, whether finite or absolute; monism cannot squeeze the many persons into one.

(2) PERSONALISM. The other form of idealism to be discussed may be variously called personalism, personal or

personalistic idealism, or theistic idealism. It is the view that interprets reality as a society of persons; there is one Supreme Person, in and for whose thought and will all physical things exist so that they are nothing apart from him. The functioning of his conscious will is their being; their matter and energy is his conscious purpose concretely expressed. Finite persons also depend on his purpose for their being, yet their being is self-conscious and relatively self-determining; not identical with his consciousness, as is the being of physical things. In finite selves, the Supreme Person wills the existence of what is genuinely other than himself; so that the universe is ultimately a society of selves, not a single self. For absolutism, God is all that there is; for personalism, God is not all there is,—human persons are no part of him. For both, it is true, the unity and the plurality of the universe alike depend on the Absolute Self; but absolutism swallows up the plurality in the unity, while personalism holds that the facts demand a real plurality dependent for its being on the unity, yet not wholly determined in detail by the unity. The personalist does not pretend this view is simple and easy; but he maintains that it does more than any other view to make all the facts intelligible.

(a) *Arguments for Personalism.* The personalist appeals to the coherence theory as a ground for believing that there is a unitary and supreme mind in the universe. Without this hypothesis, the order and interaction of nature becomes a mystic miracle, an inexplicable fact. Thus absolutism and personalism have a common starting point.

The facts of finite limitation and the nature of self-experience prove, as the previous discussions have shown, that finite selves are really distinct, true "monads," and no part of any other self.

Personalism is consistent with epistemological dualism, which has been established on other grounds. As has been shown above, the dualism of idea and object is in accordance with the fact of a plurality of persons, which an ultimate monism contradicts.

(b) *Arguments Against Personalism.* It is sometimes held that personalism is precluded by the world view of mechanistic realism. The validity of this contention depends obviously on whether the world can be completely explained on mechanistic principles. Chapters VIII and IX will be devoted to an investigation of this problem.

It is also objected that the concept of person is inadequate to serve as the fundamental principle of the universe. This question will be taken up in Chapter IX. The reader is also referred to Chapter VI.

Some contend that personalism is not a fruitful principle. This objection is often raised without any clear definition of what is meant by "fruitful." A good hypothesis, the logic book tells us, should be productive; it should lead to further consequences; it should not stand alone, but should be such that deductions may be made from it. It is evident enough that personalism is not fruitful as are hypotheses in the physical sciences. They lead to mathematically accurate predictions of future events; the personalistic hypothesis gives knowledge of an entirely different order. Personalism offers an account of the facts and values of experience that leads to an interpretation of the meaning of life as a whole. Any new conception of the meaning of life gives new significance to every part, just as the sunlight brings into clear relief the details of this earthly scene and enables man to see and thus to understand and to transform the face of nature. Personalism is particularly fruitful in that it gives a cosmic status to the ideal values and so views

personality as more than a terrestrial incident. Personality need not be abashed in the presence of astronomical space and time; all reality is personal, and the striving of human beings acquires new dignity. Personalism, then, will appear unfruitful to all who regard as unimportant the problems of the value and destiny of persons in the universe. It is safe to say that he who takes a human interest in philosophy will have no complaint about the fruitfulness of personalism.

The discussion of personalism has been materially abbreviated because the remaining chapters of the book, particularly VIII, IX and X will be devoted to a treatment of some of the contentions of personalism, and consideration of opposing positions. In the opinion of the writer of this book, the fundamental issue of metaphysics is that between mechanism and teleology: Is this world a play of blind and necessary laws, without end or goal, or is this world and all its laws the expression of purpose? The next chapter will proceed to an examination of the mechanistic position.

CHAPTER VIII

IS THE WORLD A MACHINE?

§ 1. THE FUNDAMENTAL PROBLEM OF METAPHYSICS: MECHANISM *vs.* TELEOLOGY

From the point of view of what Schopenhauer has called "man's need of metaphysics," the fundamental question of philosophy has to do with the purpose of life. Looking at human life as a whole, and, so far as we can, at the world [1] as a whole, may we reasonably assert that the universe has a meaning or purpose? Some philosophers have held that the facts of experience imply intelligent purpose as their only possible explanation; some have held that the world embodies meaning although it may be that it is not conscious of its meaning. Either of these views or any view that regards the universe as realizing ends or values is a form of teleology. Another important group of philosophers has held that all facts are to be explained as a necessary consequence of previous facts, and not as the expression of purpose. The view of these thinkers is called mechanism. It rests on what Aristotle called "efficient cause," while teleology explains the facts in terms of what he called "final cause." Many believe that mechanism and teleology contradict each other, and hence they deny the one or the other of these theories, or at least seek to modify one so as to render it consistent with the other. Others hold that both are true; the universe, they think, is, like a pump or a radio, a mechanism that embodies

[1] "World" is used in the sense of the entire universe, all reality.

purpose. Still others, such as the adherents of Vaihinger's "As If" philosophy,[1] rendered desperate by what they deem the contradiction of the two points of view, conclude that both are false,—are mere "fictions," useful in organizing experience, but not objectively true.

The issue between mechanism and teleology is complicated by the fact that many different interests of the mind are at stake. This leads to different conceptions of what the real problem is. Mechanism, for instance, is sometimes thought of as opposed to idealism; mechanism is then conceived in terms of matter and motion, and idealism in terms of mind and purpose. Again, mechanism may be opposed to freedom; and the issue is whether cause shall be interpreted in terms of temporal sequence or in terms of personal self-determination that transcends time.[2] Or it may be contrasted with vitalism. The problem in this case turns about the nature of life. Is life to be explained in mechanistic terms or is there a principle at work in the organism that realizes ends and that cannot be understood unless its relation to the not-yet-real be taken into account? Yet all aspects of the controversy are simply different ways of dealing with the question: Can our world be adequately understood if we face, with mechanism, toward the past, and regard the present as completely explained and wholly determined by the past; or is it necessary, with teleology, to take into account the future, the purposes not yet realized, the goals not yet attained, in order to interpret experience?

No preliminary statement, however, can do justice by the problems. Since the issues are fundamental, two chapters will be devoted to them; the present chapter will discuss

[1] See the very interesting article by J. Schultz in *Annalen der Philosophie,* II, 521 ff.

[2] It is not true that believers in freedom deny cause or assert uncaused events.

mechanism, and the following one, teleology. This chapter will not aim to differentiate the complicated varieties and bearings of mechanistic theories, but will attempt to interpret the essential common traits of all mechanism and to relate it to similar views, such as materialism.

§ 2. WHAT ARE A MECHANISM AND AN ORGANISM?

The word *mechanism* is obviously derived from the word *machine;* and a machine (or mechanism) is usually thought of in contrast with an organism. Each of these terms was employed by Aristotle.[1] He used the former to mean human inventions or contrivances, and the latter to mean a living body or any of its parts regarded as an "instrument."

Modern philosophy has greatly extended and deepened their meaning. Since Descartes and Robert Boyle, there has been an increasing tendency to use the word *mechanism* in describing nature as a whole. All physical changes are then explained by the laws of matter and motion. Much present-day mechanistic philosophy is of this sort; it regards the principles of physical science as sufficient to explain everything that is or can be in matter and mind, existence and value, particular and universal. This is materialistic mechanism.

It is not necessary, however, that mechanistic philosophy should be confined to the materialistic type. The concept machine may be enlarged to mean any system wholly determined by the sequence of its parts. Under this definition it is proper to speak of the association of ideas in a mind as a

[1] For a discussion of the history of the concepts, see Eucken, *Main Currents of Modern Thought,* pp. 165-169, to which discussion the text is indebted.

mechanism. The difficulties of the problem are never faced until it is grasped as it was by Kant in this universal form. It is relatively easy to analyze and work out a plausible proof or refutation of materialism; a mechanism that does not depend on the idea of matter is much more difficult to refute.

The term *organism* has also experienced changes. Until the eighteenth century, it was used only of living bodies. The contrast between organism and mechanism was not fully developed until the time of Kant and the post-Kantian philosophy. At this time it was seen that mechanistic explanation did not do justice by the structure of an organism. Kant formulated the famous definition that "an organized product of nature is one in which all is end and, reciprocally, is also means." An organism, then, is a structure in which the parts are not merely related to other parts, but the parts and the whole are also in mutual interrelations. The parts are determined by the function or end of the system as a whole. The point is well brought out by Windelband, who says that "a watch is a whole that may be put together out of previously existing parts, while an organism must itself produce the parts out of which it is to consist." [1] The principle of organism is illustrated in living beings; and also in consciousness, in values, in society,—and perhaps in the universe as a whole.

It is evident that the competition between the principle of mechanism and the principle of organism is logically connected with that competition between the method of analysis-synthesis and the method of synopsis to which frequent reference has been made in this book.

[1] *Einleitung in die Philosophie,* 2nd. ed., p. 165.

§ 3. MAN'S ATTEMPTS TO EXPLAIN HIS WORLD

Teleology suffers from the disadvantage of having been the first explanation that was thought of. As soon as primitive man began to wonder about the meaning of his experiences he framed a crude teleology as his explanation of things. The trees and brooks he peopled with spirits more or less like human beings; disease and accident, eclipse and storm he attributed to demons. All life and change, particularly everything affecting man's interests, must, he felt, be due to some being with a purpose, be it good or bad, serious or playful. Animism [1] and spiritism are found alike in ancient times and among primitive peoples to-day; they still persist in various superstitious beliefs among civilized men. A child seems to be a natural animist; for it shows a tendency to treat any object that hinders or hurts it with a certain resentment; or any object that pleases it, with affection:—as though, in either case, the object itself were a person and were expressing a purpose.

That world of spirits and demons, with their whimsical, arbitrary wills, has been banished from serious thought by the march of civilization. Two streams of progress have contributed to this end, the religious and the scientific.

The history of religion has tended toward monotheism; and monotheism is the belief in one God as the sole creator and object of worship. In proportion as the idea of God was clearly grasped by religion, traffic with spirits through witches or medicine men was crowded out. If the existence of lesser supernatural wills was still acknowledged, their agency was more and more clearly recognized as subject to, or permitted by, the will of the one God. Monotheism in its purest form finds no room in nature for the causal activity

[1] See W. McDougall, *Body and Mind.*

of any other power than that of God. The malevolent demons and the good fairies disappear with all false gods, and the sovereignty of God is the outcome of religious thought. The Greeks, it is true, were haunted by the vision of some dark and awful necessity or Fate to which God himself was subject. This belief in necessity was, indeed, incompatible with monotheism; but it served the function of undermining still further the popular animism.

The development of science aided more effectively this same result. There arose men who, dissatisfied with the vague and lawless conceptions of traditional animism and popular religion, began to seek for an explanation of the facts of the rational order in the laws and uniformities that may be found in experience itself. Thales, for example, may have thought, as Aristotle reports, that all things are full of gods; but his real interest was in the theory that water is the "material cause" of all things. He observed the changes which water undergoes, and the importance of water, or moisture, to all life, and he inferred that everything was water in some form. Thales had hit, in a crude way, on the essential principle of mechanism. Mechanism aims to explain everything in terms of the laws of change. Out of this germ grew the sciences and the mechanistic philosophies.

Ancient mechanism found its chief exponent in Democritus, the great materialist. Modern mechanism has taken on new life through the growth of experimental and inductive sciences, and through the applications of mathematics to science. Mathematical formulas, meeting repeated experimental verifications, give the exact sciences a solid basis. This situation gives rise to the hypothesis that every event in the universe is a necessary product of previous events, and that an all-wise mathematician could predict the entire

future of the universe with the same accuracy with which the astronomer can now predict an eclipse. This is the mechanistic philosophy in its perfect form. From it all reference to purpose is eliminated.

Meanwhile there has continued the development of teleological thought. Science itself has not been wholly satisfied with the mechanistic program. In biology and psychology, especially, mechanistic explanation has not appeared to do justice by the organism and the conscious life, although the mechanists—sometimes giving the impression of greater loyalty to their theory than to the facts—have been convinced that they could make their conquest complete. Meanwhile, religion, morality, education, and law have been using the category of purpose in the interpretation of human life and its values, and even of the universe as a whole. Hence the problem becomes acute. If the universe be merely a mechanism, how can we account for the purposes and values we find in human experience? Are they not inexplicable? Or if the universe be purposive, why should it appear to thought so largely under the guise of a mechanism?

It cannot be asserted that any single solution to the problem has met with general approval. The working solutions actually adopted are largely rough compromises that may work fairly well, but are, from the rational standpoint, defective.

Popular uncritical Christian thought, for example, has derived satisfaction from a view which is an imperfect mechanism, combined with an imperfect teleology. This view holds that God long ago created the world, perhaps in 4004 B. C., perhaps even earlier. Since then, the world has gone on in accordance with mechanical laws of its own, quite apart from God, save for a few occasions when God

intervenes by a miracle. This view, commonly called deism, regards the world substantially as does materialistic mechanism, except for the interventions of divine will. It is an interrupted mechanism. Since, however, the ordinary course of nature is apart from the will of God, the teleology of this view is as imperfect as its mechanism. It gives people the comfort of saying, This calamity in my life, this suffering or death of a loved one, was not God's will, but was a result of the laws of nature. Yet from a logical standpoint, this is cold comfort; it saves the goodness of God at the cost of his control of nature! This view tends to make nature and God two foreign powers that cannot survive together in a coherent world view.

Popular scientific thought also subsists on compromise. The ordinary man of science "gets along" by keeping his science and his life in two water-tight compartments. In the science compartment, he is a mechanist. Everything is regarded as the necessary result of previous conditions. Homer and Plato, Pasteur and Edison, Jesus and Paul, are understood in terms of the fire-mist. But in the life compartment this same scientist acts as though purpose were the deeper truth. He chooses, plans, thinks as though the ends realized by these activities were their justification; as though he were free to choose, and responsible for choosing. He worships God. Thus the compromise of popular scientific thought is scarcely less contradictory and unreasonable than the deistic compromise of religion.

The age-old debate has not come to a conclusion. There is still division within the ranks of science, between science and philosophy, science and religion, philosophy and religion. The difficulty is so great that many are inclined to regard as futile any attempt to judge the merits of the question. But no thoughtful human being can wholly suspend judgment

on his own deepest interests. The mechanism-teleology controversy is precisely of such sort as to challenge thought. The mind cannot rest in its presence.

§ 4. THE TRUTH AND VALUE OF MECHANISTIC EXPLANATION

Mechanism may roughly be described as the standpoint of the physical sciences. It cannot lightly be brushed aside as the manner of some is. If our philosophy, as a world-view, is to be in any sense a *scientia scientiarum*,[1] it must find place for mechanism. The only question—and it is the most fundamental one that can be raised—is whether mechanism is the final explanation of everything or whether it leaves some facts unexplained and in turn itself needs to be explained. Material for an answer to this question will be outlined in this and the following chapter.

That there are both truth and value in mechanistic explanation is evident to any one who has the slightest acquaintance with modern science.

Science is a search for causes. As long as men asked, What is the purpose of this or that fact in nature? any number of interesting speculations might be offered in reply. In this direction, however, no definite and assured progress can be made. Bacon said that the "handling of final causes mixed with the rest in physical inquiries, hath intercepted the severe and diligent inquiry of all real and physical causes"; and Spinoza characterized the will of God as "the refuge of ignorance." When, however, men began to ask, What is the cause of this or that fact? investigation and experiment had a problem set before them that could be solved, and that rendered indefinite advance possible. By cause, science

[1] "Science of the sciences."

means an event or condition of a certain sort that is always followed by another event or condition of a certain sort known as the effect. Briefly stated, "empirical" or "phenomenal" causation, as it is called, means uniform sequence. The mechanistic world-view, with all its implications, is an extension of the law of cause and effect. What is more harmless and necessary than that law? It may be, however, that there are hidden preconceptions in the scientific view of cause. Be that as it may, the hypothesis that every event, *n,* is to be explained by some previous event, *n-1,* has shown itself to be the instrument of scientific progress.

Further, the spirit of mechanistic explanation is friendly to free and untrammeled investigation. Where mechanism is held as a dogma necessary to scientific salvation, this spirit, so to speak, is bound. Ordinarily, however, the scientist seeks to be instructed by experience; he has his eye on the facts. No prejudice and no authority can lead him away from them. The mechanical explanation of astronomical and physical facts has been one of the greatest forces for freedom in history. It has banished superstition and brought enlightenment to the race. Here, then, is a paradox: mechanism in the service of freedom.

Moreover, mechanical explanation is capable of precise verification. A causal hypothesis is no sooner formulated than it is experimentally tested. If the results agree with the hypothesis, it is verified. If it be mathematical in form, the verification is the more convincing. The astronomer can calculate the date of any eclipse in the future or the past history of the earth. In the face of such evidence, who can doubt that mechanical law is true of the known universe? Indeed, no responsible thinker has any idea of denying that mechanical laws are valid. No one doubts that there are mechanical systems in the universe, although many doubt

whether the principle of mechanism is adequate to give a complete explanation of all the facts of human experience.

From the possibility of making predictions arises the fact that mechanical explanation enables man to control his experience. Knowledge of the mechanism of pumps brings drinking water to the faucet in every home; knowledge of the mechanics of gases and electricity lights our houses and our streets, alleviates suffering, or kills the enemy in war. Insight into mechanical law makes it possible for men to sail under the water or to fly in the air. Knowledge of psychological mechanisms has been of great aid to the physician, the educator, and the social worker.

The growth of mechanical science has freed man from superstition and opened his eyes to the facts of nature. It has given him vastly increased power over nature and his fellow-man. But this power is greater than he knows how to use. A thoughtful European observer, Professor Georg Mehlis, has remarked that civilization is dying of its own beauty. If philosophy has no more to offer civilization than can be contained in mechanical formulæ, she is but a symbol of the helplessness and futility of human life. Mechanical knowledge doubtless makes possible the control of nature; but such knowledge contains no principle indicating how it ought to be used.

§ 5. THE LIMITATIONS OF MECHANISTIC EXPLANATION

No one can doubt that the principles of mechanical explanation have proved themselves true in wide ranges of our experience. Yet, despite the triumphs of mechanistic science, there always have been and probably always will be many scientists and philosophers who are not satisfied with

a merely mechanistic account of reality. They are led to this dissatisfaction by a large number of considerations of varying degrees of cogency. Some of those considerations will now be discussed.

(1) Universal Mechanism Not Demonstrated. The universal truth of mechanism cannot be said to be demonstrated. Science is a long way from possessing sufficient knowledge of mechanical laws to be able to predict to-morrow's weather, much less to-morrow's behavior of human beings. The belief that mechanical laws are true of everything and will explain everything is not yet substantiated by knowledge; it is an article of faith and hope. Any theory is an interpretation of experience. This one has shown itself true for large parts of experience. To assert that it is therefore true for all parts of experience and for experience as a whole is to express an ideal that is not verified. Any world view doubtless involves a certain attitude of faith,—the attitude, that is, of making and genuinely testing some hypothesis. It is, however, worth remembering that mechanism as faith about the universe cannot lay claim to the certainty that attaches to mechanism as verified law about some system in a part of the universe. It is true that this consideration does not disprove mechanism; it serves, however, to weaken the force of extravagant claims made in behalf of that theory.

(2) Mechanisms Used By Purpose. Mechanical explanation presupposes and in turn is used by purpose. Mechanical explanation did not fall from the apple tree that Sir Isaac Newton was observing; only an apple fell. Sir Isaac Newton's mind set to work to the end of explaining all falling bodies under one law; and the concept of mechanism was the outcome of Newton's purpose. No one can arrive at a mechanistic or any other philosophy without purposing

to think. Further, it is an undeniable fact of experience that man uses knowledge of mechanical laws in order to fulfill his purposes. He wishes to extend the means of transportation or communication; he attains the end by using mechanisms that science has discovered. This fact, which, as we saw, is one of the chief arguments for the value of mechanical explanation, is also an indication of the subordination of mechanism to purpose. Experience shows, then, that mechanical explanation is rendered possible by purpose and is used by purpose.

(3) Mechanism Explains Purpose in Terms of No-Purpose. The mechanistic philosopher is not, however, convinced by the sort of argument sketched in the previous paragraph. He holds that the control of mechanism by purpose may well be stated in purely mechanical terms. It is true, he would admit, that purposes use and control mechanisms of nature; but this he would view as only a special case of the familiar law that one part of a machine affects another part. Purpose may be regarded as a process of biological mechanism which serves as cause of certain effects in the mechanical order of nature. Thus the mechanist reasserts his position.

The plausibility of this point is largely derived from its shortness of range. It seems easy enough to abandon purpose and freedom as principles of explanation when the law of cause and effect appears to be at stake; but no special formulation of any law is sacred. Every law must be judged by its adequacy to interpret the facts. The facts that philosophy cares about are all the facts there are in experience as a whole. It is not so easy to consider experience as a whole as it is to consider neural mechanisms; but men often lose more than they gain by declining to do their best with a difficult task.

From the short-range point of view, then, conscious purpose may perhaps be regarded as the product of a biological mechanism. The seemingly purposive adaptations of organic life fall conceivably under the same rubric. If, however, the true meaning of this situation be stated from the point of view of experience as a whole, the outcome is this: that *all purpose is explained in terms of no-purpose.* This proposition the critic of mechanism believes to be unreasonable.

The mechanist will doubtless ask opportunity to defend himself as soon as this criticism is offered. It would be no more than just to let him speak first, seeing that he is on trial for his life. He might say either that he does not explain purpose in terms of no-purpose; or that he does so and that it is quite reasonable to do it.

Let him deny that he explains purpose in terms of no-purpose. He will then say that purposes and purposive adaptations are explained on his view as outcomes of previous teleological situations. If he be a determinist interested in ethics and education he may say that his principle, far from banishing purpose, is what makes purpose effective and significant. A man's acts are the necessary product of his character; his character, the product of his previous history. Therefore let his teachers, when he is a child, implant in him wise aims and high ideals. The law of mechanical cause and effect will produce the results intended by the moral educator. Even though this were wholly true in life, as it obviously is not, it would still be an instance of the fallacy of the short-range view. If the investigator pushes his inquiries back before the birth of the child and his teachers, back before the origin of life, he must inevitably arrive at a state of affairs when, for his theory, there was no purpose in the entire universe. The mechanist, therefore, who takes all the facts into account together with all the implications of

his own theory will be unable to confine his attention to man as a psychobiological organism or to the present state of affairs in nature. He must view man and nature in relation to all that we know about their past history. A truly genetic and evolutionary view must look as far as it can. Mechanistic explanation has not become conscious of itself until it sees that its position necessarily implies an account of all purpose in terms of no-purpose.

The mechanist may then choose the other horn of the dilemma. He may say, "Yes, I indeed interpret all purpose in terms of no-purpose; I am compelled to do this by the logic of cause and effect and therefore my interpretation is reasonable." Is he right? The ensuing discussion will seek an answer to this question.

It is often said that it is obviously impossible to explain consciousness in terms of unconsciousness, or purpose in terms of the non-purposive; and that mechanism is therefore untrue. When one inquires into the reasons for this obviousness one does not always receive light for his pains. Some incline to regard the principle as self-evident; but Chapter II taught us that intuitions cannot stand alone. They need support from the rest of experience. Critics, moreover, have not been slow to point out that the principle cannot be a universally valid intuition, for it appears to derive its force from the hidden assumption that any effect must resemble its cause. Experience testifies abundantly that effects and causes are often very different. The cow is a crucial instance. She eats green grass and gives white milk out of which yellow butter is made. It is not, therefore, self-evidently true that purpose cannot be explained in terms of no-purpose. The contention between mechanist and teleologist must be settled on the fair field of argument, not in the darkness of intuition.

The mechanistic philosophy arises from a minute study of the laws of motion, and comes to the facts of mind and purpose with preconceptions derived from the non-mental and the non-purposive. As Charles Peirce once remarked, Democritus, "having restricted his attention to a field where no influence other than mechanical constraint could possibly come before his notice, straightway jumped to the conclusion that throughout the universe that was the sole principle of action,—a style of reasoning so usual in our day with men not unreflecting as to be more than excusable in the infancy of thought." [1] This "style of reasoning" easily blinds the eyes of the reasoner to whatever properties mind and purpose may have that cannot be described in materialistic terms. All explanation is a selection of the relevant and a disregard of the irrelevant. A mechanistic bias might well lead a thinker to treat certain aspects of purpose as irrelevant or accidental. The extreme behaviorist, for instance, regards consciousness, subjective feeling, and the like as "meaningless" or "unintelligible."

The range of facts that it ignores or inadequately explains is so wide as to constitute a refutation of universal mechanism. Some of these facts have recently been brought together by Julius Schultz.[2] According to the mechanistic biologist, Verworn, cells, of which living organisms are built up, are composed of tiny mechanisms known as biogens. Schultz argues that if we trace the history of the universe back beyond the origin of our solar system, we gain a perspective of one series of worlds after another, arising and perishing. Throughout this universal drama, if Verworn's mechanism be

[1] Article on "The Doctrine of Necessity Examined," in *The Monist*, April, 1892; reprinted in *Chance, Love, and Logic*, p. 179.

[2] "Die Fiktion vom Universum als Maschine . . .", *Ann. der Phil.*, 2 (1921), 521-531. The discussion in the text uses some of Schultz's points and adds others.

true, the biogens are preserved. When the solar system is formed, some biogens are found at the bottom of the oceans in an environment where, as Henderson has pointed out, just the elements were present in just the proportions favorable to the development of life. In particular, carbon and oxygen were at hand, and such a necessary compound as water. Now, says Schultz, the preservation of the life-germs (biogens) and their presence in friendly surroundings was either due to mere chance or was the expression of some plan or meaning that was present where the human eye could see only primeval chaos. "Mere chance" is another way of saying that there is no explanation!

The evolution of life from its primitive germs to higher types demands some cause. Animals and plants, which are adapted to each other and need each other, arose at the same time. Schultz frankly says, "the structure of the biogens alone cannot guarantee the meaning of to-day." In order to account for orchids and butterflies and apes, we must not alone be able to explain the development of life, but we must grant that the mechanical order of events is so arranged as to realize ends and meaning. Regarding the origin of life, we must either hold some theory like that of Verworn, or else we must explain life in terms of the inorganic; either view is equally difficult in the light of the facts to which attention has been called.

The philosopher, however, will not confine his attention to the facts of organic life. The relations between organic and inorganic are so close that if life realizes ends it must be granted that inorganic nature coöperates and belongs in the same system of ends. There is in the universe a tendency to realize meaningful structures or ends through the correlation of seemingly independent series of events. Such a tendency finds no place within the field of a strictly mechanical philos-

ophy. The mechanist says that any event is the necessary consequence of previous events. If it also realizes an end, the coincidence is interesting and perhaps fortunate, but it is a brute fact, admitting no further explanation. The teleologist says that these "brute facts," these ends that nature realizes, prove that there is a law of purpose in reality that cannot be described as mere mechanical sequence of cause and effect.

Thus it would appear that the mechanist explains all purpose in terms of no-purpose, and in so doing is unreasonable, for his type of explanation does not cover all the facts. The mechanist's explanation of purposive adaptations as purely mechanical products is too easy-going. It is a short-range view, insufficiently inquisitive.

(4) Mechanism Presupposes Purpose to Know Truth. The foregoing criticism has shown that mechanistic philosophy has no right to any form of purpose or end among its first principles. Yet, if it is to expound and defend its own position, it must recognize the purpose to think truly and must believe that this purpose can be attained. Critics of mechanism, like Bowne, have often argued that here mechanism contradicts itself. If mechanism be universal, then everything in the universe is an equally necessary outcome of what has been. The "everything" includes all thoughts and all systems of philosophy. If mechanism be true, it is equally necessary for some to believe in mechanism and others in teleology; and equally futile for either party to appeal to reason; for the appeal to reason is an appeal from what is in the mind at present to an ideal of logical truth. The mechanistic philosophy makes any such appeal to ideals or ends as ultimate principles logically impossible.

To this argument the mechanist may reply that it does not hit the nail on the head. A belief, he would contend,

may be either true or false, no matter how necessary an outcome of previous conditions it may be. An admitted mechanism, like a phonograph, might utter either truth or error. If the phonograph happens on the truth, the truth is no less true.

The critic of mechanism must, of course, admit that if mechanism be true, it is not rendered untrue because all events, including belief in mechanism, are causally determined. Nevertheless he will not admit that this fact refutes his criticism. If he were to take up the illustration of the phonograph, he might well say that, if human beings were as truly mechanical as is a phonograph, they would be as incapable as a phonograph of judging the truth of their utterances by a scientific or logical ideal. To be more literal, we may say that if all thought processes are completely determined by antecedent neural and psychological conditions, there is no room left for explanation in terms of purpose to attain the end of conformity to truth. The same point may be stated in other words. If the mechanist admits that it is legitimate to judge psychological processes by the ideal demands of reason, he has thereby admitted that mechanical explanation is not the whole truth. He is compelled in logical consistency to admit the truth of the teleological principle, in so far as scientific thought is the end sought. He has to say, "No view at all, mechanism or any other, can be judged to be true unless man is free to entertain a purpose to think truly and to judge his actual thoughts by his ideal of what true thinking demands. Further, no view can be said to be true of the universe unless the universe itself conforms to the ideal ends of thought."

When the mechanist sees the implications of his own thought in the manner thus stated, he will perceive that the nose of the teleological camel is in his tent. How can he

exclude the remainder of the animal? When he realizes that the explanation of purpose in terms of no-purpose has led him to what strangely resembles the explanation of truth in terms of no-truth, he may be inclined to inquire whether his principle does not need correction or at least supplementation. The camel may be a friend!

(5) Mechanism Involves Infinite Regress. From another point of view mechanistic explanation fails to satisfy the mind. Pure philosophical mechanism asserts that the complete and only explanation of the present state of affairs in the universe is to be found in the previous state of affairs. If the present be represented by *1* and the preceding moment by *2*, and so on back into the past, then *1* is wholly explained by the fact that it followed *2* necessarily; and *2* by the fact that it followed *3*, and so on. The series is infinite. To the old question, Which came first, the hen or the egg? the mechanist would answer, Neither, for there was no first; before the earliest event we can think of there was an infinite series of yet earlier ones. This situation is commonly called the infinite regress *(regressus ad infinitum)*. Now, such explanation as a philosophy of reality is unsatisfactory.

Truth is a coherent synopsis, a view of reality as a whole. In the infinite regress there is no whole. Hence Hegel called the regress a "bad infinite." This objection is perhaps not final. It may be that reality will disappoint our most rational expectations. Nevertheless a theory that wantonly frustrates reason should be accepted only as a last resort of despair. If a more rational view exists in teleology, it would be perverse to cling to the less rational.

Further, the infinite regress is from another point of view disappointing to thought. Most mechanists analyze the universe into elements, be they atoms, electrons, neutral

entities, or what you will. These elements are assumed to be eternally existent and to be constant in number. The ongoing of the universe is explained in terms of mechanical relations among them. To use a crude illustration, mechanism compares the universe to a coal-hod full of coal, in which the pieces of coal are constantly rearranging themselves. This coal-hod to-day is our problem; the solution is the statement that to-day's coal-hod is a necessary result of yesterday's hod and of that of eons ago. Forever the same hod, the same coal. It is not surprising that Bowne and many others see mere tautology in such explanation. It is insufficiently enlightening. It does not touch the problem raised by the facts of purpose and value. It makes real novelty impossible. The infinite regress can never be a philosophy of life as a whole.

(6) MECHANISM IS ABSTRACT. The foregoing objections to mechanism may all be regarded as different forms of one fundamental objection, which is commonly put in the form, "Mechanism is an abstract philosophy and is therefore not true."

If misunderstanding is to be avoided, it is necessary to recall the two meanings of the word *abstract*. It may mean what cannot be perceived by the senses. In this sense, every theory, true or false, is abstract and abstractness is no argument against the truth of a position. The word may, however, describe anything taken out of its connection and relations in the real world. It is in this latter sense that mechanism may be said to be abstract and therefore untrue. The proposition that mechanistic philosophy is abstract would mean that it considers certain aspects of experience but ignores or abstracts from their relations to purpose and then gives forth the result as an adequate philosophy of the whole.

To abstraction, even in the second sense, there can be no reasonable objection, so long as it is recognized as such and is not regarded as a complete account of reality. The attentive reader of Chapter I will observe the affinity between abstraction and what was in that chapter described as analytic method. Without breaking up the confused mass of experience as it comes to us and considering its parts separately, neither science nor philosophy nor life could advance. Far from being unreasonable, abstraction is part of the necessary work of reason. Failure, intellectual and practical, ensues only when the abstract part is taken for the whole, the analysis substituted for the work of synopsis, the living organism reconstructed from its dissected and lifeless parts.

To criticize mechanistic philosophy as abstract, then, may mean to assert either that it takes into account some of the parts of experience, while omitting other parts, or that it considers all the parts into which experience may be analyzed without considering our experienced world as a whole. Sometimes mechanism is guilty of one of these defects, sometimes of the other. Either is fatal.

Every law of mechanical science is abstract. It defines certain conditions apart from all the rest of the universe and states what would happen if these conditions were all that there were in the universe. In order to explain observed aspects of experience, it constructs and defines abstract systems and discovers laws true for those systems as defined. Its value is evidenced by the progress of physical science. Its success depends on its abstractness. The truer a mechanical law is, the more of concrete reality it is leaving out of account.

The point may be illustrated by reference to the pendulum. Webster's *New International Dictionary* defines the simple

pendulum as "a particle, or material point, suspended by a thread without weight and oscillating without friction." This is a perfect abstraction. In concrete experience, no such pendulum could ever be found. It can be conceived only by abstracting from the real facts and considering, as it were, their ghost. Every law of physics is formulated for just such theoretically ideal conditions, from which friction and the influences of other forces have been eliminated. Concretely the application of any law is limited by all the real forces in operation. The law of the pendulum is not violated if the thread has weight and the suspended object is larger than a material point and oscillates with friction; nor if the thread breaks or a human hand causes the oscillation to cease.

This means, taken generally, that every mechanical law operates under conditions determined by the operation of all other mechanical laws. To this proposition, of course, every mechanist would give hearty assent. But it involves another proposition to which he could not give assent without surrendering his system, namely, that mechanical law as a whole operates under conditions determined by whatever other laws there may be at work in the universe. The fair-minded philosopher must face the problems thus raised.

The question whether there are other laws than mechanical ones is to be answered by inquiring from what facts mechanical explanation abstracts. The answer is almost appalling. Mechanism abstracts from all experienced qualities, from personality, and from purpose and value.

That it abstracts from experienced qualities is evident to one who is acquainted with the methods of science. Physics has no interest in the qualities that we perceive as colors. It is interested only in waves of radiant energy. Physics aims to leave empirical qualities behind and to

express its laws in purely quantitative formulæ. So with all the exact sciences.

It also abstracts from personality. A person is an experienced unity of consciousness, a whole, whose interests, purposes, and self-identity are ignored whenever a mechanical law is formulated, whether in physics or psychology.

Further it abstracts from purposes and value. Mechanical science has no interest in the beauty or goodness of the world. It considers only what is and ignores its relation to what ought to be. For it, the spiritual life consists wholly of a knowledge of mechanical law. Happily for the cause of truth and for the welfare of the race, few men of science are mechanistic philosophers, and the mechanistic philosophers are rarely consistent with their theory in real life.

The vast realm of experienced qualities, of selves, and of purpose and value must somehow be related to mechanical laws; but it cannot be adequately interpreted by those laws. Mechanism fails to unify our universe. It does not interpret the facts as a whole. It may be that the principle of teleology, which will be discussed in the next chapter, will succeed where mechanism fails.

(7) Mechanism Presupposes Space and Time. The mechanistic philosophy arose from a study of the laws of motion. Science has, in general, tended to "explain" the qualitative differences in experience in terms of the motion of material particles. Now motion is always from point to point in space and from instant to instant in time. In so far, then, as mechanism is a generalization of the laws of motion, it presupposes that what is true of space and time is true of the universe as a whole. If it could be shown that space and time are inadequate descriptions of reality, the foundations of mechanistic philosophy would be shaken.

Experience and reflection refute the materialistic view

that everything can be explained in terms of space and time. Earlier chapters have discussed consciousness, universals and values. It is certain that these entities are related to space and time. It is equally certain (some opposing opinions to the contrary notwithstanding) that they are not located in space or confined to any instant in time. This is more easily seen, perhaps, in the case of space than in that of time. Consciousness, for instance, is intimately related with a spatial object, the brain; and it refers to physical objects, both "real" and "imaginary." It would, however, be erroneous to infer that consciousness itself occupies space. If it occupied space, that space could be pointed out and observed. Brain may be observed; but nowhere in the brain has any one found or even pretended to find the actual conscious experience of love or disappointment, the idea of yesterday, or the ideal of intellectual honesty. In the brain there is only a collection of material particles in motion. Consciousness is nowhere in the brain, although it occurs at the same time with, or immediately before or after, particular events in the brain. Consciousness, then, is not spatial. It is neither anywhere in the brain nor anywhere out of it. It is a reality to which space-words like "where" simply do not apply.

The extreme behaviorist frankly denies that what we mean by consciousness exists at all, and substitutes for the study of consciousness the study of the motions of the body and its parts. He rejects consciousness because there is no place in his system of materialistic mechanism for such a reality as consciousness is experienced to be. Would it not be more reasonable to revise the system in the light of experience than to reject experience on account of the demands of the system?

So, too, universals like number or causation, and even

universals that apply primarily to sense-objects, such as green pocket-book, are located nowhere in space. A particular green pocket-book is located in space, truly enough; but the universal green pocket-book is in no place. It can be thought about; it is valid for mind; but neither it nor any universal is anywhere in space. The same reasoning applies to values.

The case of time is, as has been said, more difficult to understand. Time seems to enter into the very warp and woof of consciousness as space does not. It is almost self-evidently absurd to say that consciousness fills space. It is far from absurd to say that consciousness takes time. All the consciousness that we know anything about is in the form of before and after. Further, the time-aspect is more fundamental to the mechanistic philosophy than is the space-aspect; for, even though space were not universally valid, mechanism might be true if temporal sequences were ultimate.

If the problem be approached from the point of view of universals and values, it appears that here, at least, we have entities that are not affected by time, and are true whatever time it is. A valid universal is no more or less true now than a thousand years ago. Truth does not change. Time and its mechanisms do not tell the whole story of the universe.

But how about consciousness? It surely changes, it is temporal in its innermost life, is it not? Without time, no change, no development. Indeed, whatever philosophers and theologians may have said, an utterly timeless consciousness, in which there is no relation to present, to past, or future, is strictly inconceivable to us. How, then, may it be said that mind is not temporal in its nature?

It is true that consciousness is temporal. This is con-

sistent with the fact that psychology finds certain conscious mechanisms. But it is not true that consciousness is wholly temporal. Time may be analyzed into a series of instants, one after the other. When one instant goes, another comes. Consciousness, however, is not merely this arrival and departure of instants. An instant does not vanish from mind as soon as the next instant dawns. On the contrary, the actual consciousness that we are aware of in one act of mind includes many instants and presents to us in one mental process all that we experience for about six seconds.[1] This time is called the specious present, the time span, or the perceptual present. Without the power to hold in mind at once events that take time, all temporal and all rational experience would be impossible.

The mind, then, is temporal in that it experiences sequence and duration, but it is supertemporal in that it is able to grasp in a single conscious act a series of events that takes time. This is what philosophers call the time-transcending function of mind. It is only because we can grasp in a single mental act the meaning of an entire sentence that we are able to think. It is only because we are able to experience all the events of a specious present as belonging to the self that either personal experience or experience of a coherent world-order is possible. No account of mind is complete or philosophically sound that considers the temporal features of mind without also considering its time-transcending features and the relations between the two. Mechanism, then, is inadequate.

Hitherto the point of this discussion has been to show that there are important aspects of the world of experience that are not to be explained in terms of space-time. This has assumed that space and time are what we take them to be,—

[1] This time has been established by Titchener's experiments.

whatever that may be! The question remains, Can space and time themselves be regarded as ultimately real? This question sounds strange, and it should be carefully defined. No one has questioned the fact that we experience space and time objects. Space and time are "empirically" real,—real for experience; or "phenomenally" real,—real as appearance. But we experience much that needs to be corrected and interpreted; much appears to be real that turns out not to be. To say that we see the earth to be flat does not prove it flat; and to say that we experience space is no proof that space really exists apart from all experience. The question, Can space and time be regarded as real? means, for the present inquiry, Can space and time be thought of coherently as objects or realities independent of all minds? We cannot deny that they are real for minds without contradicting experience; must we likewise assert that they are real apart from minds?

Let us consider space first. It seems natural and obvious to regard space as real. The things about me, my neighbors' bodies, the Milky Way, are not in my mind; they are "out there" in space, so many inches, or rods, or light-years from me. The dualism of idea and object in knowledge suggests that my idea and space itself are two different entities. The reality of space seems to be confirmed by the fact that we communicate with one another through spatial media and share our space-world in common. If I agree to meet you at a certain locality in space, you will be there at the time appointed. This would seem to indicate an objective space-world, independent of you or me. Science points in the same direction.

Philosophy is indeed hardy if, despite common sense, experience and science, it persists in its question. Many great philosophers have nevertheless persisted, and have

become convinced that the facts can be better explained if space be regarded as empirically or phenomenally real, but not as metaphysically or ontologically real. The classic form of argument for this position is found in Kant's antinomy, which he expounds in the *Critique of Pure Reason.* Very simply stated, Kant's position is this: if we start from the assumption that the world in space and time is a given whole, independent of mind, we are able to prove that such a world is self-contradictory. For instance, in what he calls "the first conflict of the transcendental ideas," Kant seeks to show that you can prove a thesis and its contradictory antithesis. The thesis is, "The world has a beginning in time, and is limited also with regard to space." The antithesis is, "The world has no beginning and no limits in space, but is infinite with respect both to time and to space." At present we are concerned only with his argument about space. He proves the thesis by showing that the conception of an infinite space is self-contradictory; for we can conceive space only by perceiving a limited amount of it or by successive addition of parts. An infinite whole of space is inconceivable because an actual infinite time for the addition of its parts is inconceivable. That is, infinite space is something the conception of which involves an inconceivability and therefore it cannot be true. But Kant also proves the antithesis. The world in space, he argues, cannot be finite; for if it were finite we should have to think of limitless space beyond, which would contradict the original assumption that the world is a given whole. Hence, since the finiteness of a space-world involves contradiction, the world must be infinite.

Accordingly Kant believed that he had proved both thesis and antithesis. The space-world must be finite and it must be infinite; each supposition is necessary and each is

impossible. An object that leads to inevitable contradiction cannot be a real object, if coherence be the criterion of truth. Hence the supposed object, a real world in space, independent of mind, cannot exist. The only possibility that remains is that space is real in the experience of minds and in no other way; that it is the law or form in which all minds react to the stimuli from reality, just as acid turns blue litmus red. A world of litmus-beings would perceive all acids as red; so we perceive all reality as spatial. But acid is not truly red, and reality is not truly spatial.

This conclusion Kant confirms by the "second conflict" of the antinomy, which runs as follows. "Thesis: Every compound substance in the world consists of simple parts, and nothing exists anywhere but the simple or what is compounded of it. . . . Antithesis: No compound thing in the world consists of simple parts, and there exists nowhere in the world anything simple."

The thesis must be true, for we cannot think of compound beings without supposing them made up of simple parts. Without parts, no whole. The antithesis is proved by showing that no simple spatial unity can exist, for everything, no matter how small, occupies some space, which, in turn, consists of parts that may be further divided. Hence the world in space must be, yet cannot be, made up of simple parts. Here again the inference is that the assumed world in space does not exist; and that space is only a form of experience.

The doctrine of space at which Kant arrived is called the ideality or phenomenality of space. It is one that has been held by a great many other philosophers, both before and since Kant, and other arguments have been adduced that tend to the same conclusion.

Kant has applied similar arguments to time. How can time be regarded as something in itself, apart from mind?

So conceived, it must be, yet cannot be thought of as having a beginning and an end; it must, yet cannot be, thought of as infinitely divisible. Hence time cannot be anything "in itself"; like space, it must be only a form of conscious experience.

Kant's position has been subjected to criticism. It does not fall within the province of the present discussion to consider these criticisms. The study of the nature of space is one of the most complicated branches of mathematics and physics. The effect of Einstein's theory of relativity and of the newer geometries on the Kantian view can hardly be estimated at this time. One point, at least, stands out. The newer theories deny absolute independent space and absolute independent time. Space and time are relative to each other and to matter; and perhaps, as Kant thought, to the mind. Be that as it may, for the purpose of the present discussion it suffices to have shown that an important argument against mechanistic philosophy has been found by many thinkers in the hypothesis that the real world is not a space-time world; and that space-time exists in and for minds, not minds in and for space-time.[1]

The foundations of mechanistic philosophy are, therefore, far less obvious and secure than is often assumed to be the case.

§ 6. TRANSITION TO NEXT CHAPTER

The present chapter has raised the problem of mechanism and teleology, and has discussed the mechanistic philosophy.

[1] For a detailed and critical examination of Kant's views, the reader is referred to N. K. Smith, *Commentary on Kant's Critique of Pure Reason*, p. 478 ff. A discussion of other arguments for the ideality of space and time is found in the chapters on those subjects in Bowne, *Theory of Thought and Knowledge*, and *Metaphysics* (rev. ed.).

It has been shown how reasonable and necessary it is to recognize the value of the mechanistic postulates of the physical sciences; and how natural it is to universalize these postulates and make them the structural principles of our metaphysics. It has also been shown that difficulties arise when reality as a whole is supposed to be capable of complete and consistent explanation from the mechanical standpoint. May these difficulties be set aside? Are they a necessary result of our ignorance? Is any other view equally difficult?

The following chapter will consider the possibility of teleology as an alternative answer to the riddle of the universe.

CHAPTER IX

HAS THE WORLD A PURPOSE?

§1. A RESTATEMENT OF THE PROBLEM OF MECHANISM AND TELEOLOGY

Mechanism has been shown to be a difficult view to hold. It does not do justice by the facts of purpose and is not internally coherent. Perhaps teleology may turn out to be equally difficult. The question still remains, Has the world a purpose? Is teleology better able than mechanism to interpret the facts of experience?

The problem can be solved, if at all, only by considering the relative ability of the two theories to include and interpret all of the facts both of mechanism and of purpose, of things and of values, of matter and of mind.

§2. THE TELEOLOGICAL FACTS

(1) Teleological Functions of Organisms. The properties of living beings have suggested to many minds the fitness of a teleological explanation. It has seemed to them that the structure and behavior of organisms can be described only by appeal to the principle of end or purpose. "An organized product of nature," says Kant, "is one in which everything is end and reciprocally also means; nothing in it is in vain, nothing purposeless, or to be ascribed to a blind mechanism of nature."[1]

[1] *Kritik der Urteilskraft*, p. 296 (Kant's 2nd and 3d ed.).

The indications of purpose in organisms are numerous. The various parts and functions of any organism, whether sand-flea or eagle, lion or man, are such as to adapt the organism to its environment. Each part contributes to the welfare of the whole organism. Further, nature appears to be realizing similar ends by use of widely different means. Bergson's famous comparison of the eye of vertebrates with the eye of the common pecten, or scallop, is an illustration of this point.[1] The eye of the scallop and the eye of man contain the same essential parts with analogous elements; yet this fact cannot be explained by the line of evolutionary descent, for eyes of this type were developed, as all biologists agree, long after the separation of mollusks and vertebrates from their common parent stem. How, then, can the similarity be accounted for? A mechanistic theory of evolution might say that two series of purposeless and accidental variations had, either gradually (Darwin) or by sudden mutations (De Vries) at last independently arrived at the eye of the mollusc and that of man. But when one takes into account the fact that the eye is a complex organ, that each part of it is adjusted to the function of the whole, and that the parts are useless except in combination, it is difficult to understand the result on a mechanistic basis. If the developed eye be the outcome of gradual successive variations, there is no explanation of why the rudimentary variations would survive before all of the necessary variations had occurred in combination. Or if it be the outcome of a sudden mutation, there is no explanation of why all the necessary parts should appear at once in mutual coördination. On either horn of the dilemma, the similarity of structure and function in the two types of eye is an effect without an adequate cause, a mysterious miracle. There is no explanation

[1] *Creative Evolution,* pp. 62 ff.

unless it be granted that there is at work in nature a power that is non-mechanistic and that realizes ends.

Facts like the foregoing have led numerous biologists, notably Driesch,[1] to advance the hypothesis that the telic property of organisms is to be explained by a non-mechanical principle, known as an entelechy. The entelechy of Driesch[2] is the elementary factor that is the true basis of heredity and builds the life-form of each new individual. It is not material, but uses matter. It is not psychical, yet to it are ascribed, and in no "merely figurative fashion," "a primary knowledge and will . . . and the psychological concept of teleology." The theory that explains life in terms of such an entelechy is called vitalism. Most biologists reject vitalism. It seems to some a corruption of sound mechanism; the entelechy is vaguely defined; and it does not lend itself to precise scientific use.

It does not fall within the province of philosophy to decide between vitalism and mechanism in biology. Too much importance has been attached by some philosophers to this debate. The unfortunate impression has been given out that the truth of metaphysical teleology stands and falls with the truth of vitalism. Biology may find it useful to adhere to mechanistic explanation or it may adopt the vitalistic entelechy. Whichever it does, the facts of experience remain and the distinction between the problem of science and that of philosophy remains. If biology decides to be mechanistic, the teleological functions of organisms are no less valid as evidence for a teleological metaphysics; and should it decide to be vitalistic, the entelechies would not settle the question in favor of universal teleology.

[1] Similar theories have been advanced by many, from Aristotle to Bergson.

[2] See Driesch, *Philosophie des Organischen,* 2nd ed., pp. 220 f., 286, 401, 461, 582.

(2) "The Arrival of the Fit." What Bowne has called "the arrival of the fit" is an undoubted fact in biological life which is presupposed but not explained by mechanistic evolutionary philosophy. In any given line of descent variations occur. Some of these are abnormal monstrosities, unfitted to survive. Some, however, are not only fit to survive but are equipped with new characters favorable to survival. Biologists believe that there is a tendency in any given line of descent for variations to occur in the direction of some special type. This tendency is called orthogenesis.

It is simple enough on mechanistic principles to account for the survival and propagation of a living species that is adapted to survive. This simple feat is accomplished by naturalistic theories of evolution. It is less simple to explain, on consistent mechanistic principles, how there come to be any organisms whatever that are fit to survive. The fit, of course, will survive; but how do they happen to arrive? Science is not compelled to trouble itself about this problem. A philosophy that aims to interpret experience as a whole must, however, inquire whether there is not here a fact that mechanistic philosophy fails to explain. If organisms are the product of a power that is capable of foresight and purpose, the possibility of the origin of new types of life, related to the old, yet better equipped to survive, and adapted to lead on to still higher types, becomes less opaque and accidental, more intelligible and rational.

(3) Human Experience of Purpose. It is undeniable that human beings have purposes. Our experience of purpose is part of what a true philosophy must explain. The mechanist may say that he explains purpose by showing that it is the result of certain neural stimulations and responses. But the mechanistic explanation of purpose is

defective because there is so much more in the fact of purpose than there is in the explanation given. Purpose is a genuine whole. It is a plan. It looks to the future. The neural facts to which the mechanist appeals are not even conscious, much less forward-looking. Even if recourse be had to the idea of a psychological mechanism as the explanation of purpose, the mechanist would be dealing only with elements of consciousness, while purpose is an organic whole that cannot be completely described by any analysis into elements. The very essence of purpose evades the mechanist. A view that explains the existence of human purposes by appeal to a universal or cosmic purpose is a rational attempt to interpret what for the mechanist remains sheer mystery.

(4) THE SPIRITUAL LIFE. The term *spiritual life* is one that arouses an intelligible antagonism in many minds. It is ambiguous. It has been associated with many obnoxious and unspiritual forms of religious belief and experience. It would, however, be a serious error to surrender a great realm of experience merely because the word that describes it has been misused.

By spiritual life is meant realization of the highest values. In view of the interdependence of these values, the true spiritual life is a unity in which all values are grasped as an organic whole. The true and the beautiful, the morally good and the religiously sacred, are all elements in the spiritual life; yet no life is, in the finest sense, spiritual if it devote itself exclusively to any one of these values. The chemist whose only interest is in chemistry is not spiritual, no matter how loyal he may be to chemical truth. The bishop, no matter how profound his reverence for the sacred, is not spiritual if his interest in religion leads him to ignore truth and beauty and character. The spiritual man is a lover of

all true values and seeks to appreciate and to realize them all.

Now, the spiritual life, even if it be regarded only as a mere ideal, is also a fact. It is a fact that the conception of an ideal of spiritual integrity exists in many minds, and has existed in some form since men began to think. It is also a fact that the struggle to attain spiritual life has never ceased among men. Seemingly unspiritual facts and men abound, too; but it is the assertion and development of the spiritual in an unspiritual environment that is the wonder and the hope of human history. The great poets and philosophers, sages and saints, have lived for the spiritual as they understood it. On the cause of the truly spiritual they have staked their all; Plato and Paul, Augustine and Spinoza, Newton and Hegel, Lincoln and Pasteur—these men have differed in many respects, but all have agreed in making the spiritual rather than the material their guiding star. Of this Matthew Arnold was speaking when he wrote,

> "Know, man hath all which Nature hath, but more,
> And in that *more* lie all his hopes of good."

The spiritual life is important evidence for teleology. This is true not merely because the wise and good have believed it, but rather because the existence and progressive realization of an ideal of spirituality is as genuine a fact as the existence of mud or of earthquakes; and because the spiritual life is the sort of reality for which mechanistic philosophy has no adequate interpretation.

Strangely enough, some of the noblest and most beautiful expressions of spirituality are found in the writings and lives of men whose metaphysical theories are such as to make the existence of their own ideal inexplicable. Democritus and Hume, Bertrand Russell and George Santayana are illustra-

tions of this fact. That spiritual life should be in a mechanistic universe is a brute mystery. There is no basis for it in reality as mechanism describes it. If the belief in universal purpose expressing itself in spiritual life everywhere, stimulating and guiding that life, makes the facts of our experience more intelligible than does a mechanistic explanation, that belief is more coherent and inclusive than mechanism and hence more adequately true.

(5) INTERACTION OF MIND AND BODY. The interaction of mind and body is another and different sort of evidence for teleology. It is true that the concept of interaction is debatable and that the present remarks will appeal only to those minds convinced of the truth of interaction. Yet, any argument that tends to show the coherence between interaction and teleology serves to confirm the truth of each hypothesis, if each is compatible with the facts.

Leaving to one side for the moment the question of what "matter" is, it is safe to say that every reasonable mind knows what is being talked about when matter is mentioned, however hard it may be to define the term. Further, every reader of Chapter VI knows why the writer of this book regards it as unreasonable to view mind or consciousness as identical with matter or with any part or movement of matter. Mind surely is no form of what matter seems to our senses to be, or of what science takes it to be.[1] The laws of matter, as science expresses them, are statements of the way in which matter has always been observed to behave and may be depended on to behave under the conditions that the laws define. In considering those conditions, however, the physicist (from whom the mechanistic philosophy

[1] For the sake of simplicity, the discussion in the text omits consideration of the admitted fact that there are also psychological mechanisms; but the argument is not thereby affected, for even "mechanical" laws of mind are different from those of physics.

is ultimately derived) takes only matter and its laws into account. Mechanism, therefore, gives the truth about the universe in so far as the presence of mind as a factor is ignored and abstracted from. Minds are, however, actually here, as well as matter. The every-day fact of experience is that minds cause matter to act as it would not act if left to mechanistic forces alone. Likewise it is true that the mechanistic forces of matter sometimes have other than material consequences, namely, their effect on the mind of man. Mind and matter interact. These different systems within reality seem completely adjusted to each other. Further, this interaction involves the fact that human purpose may utilize physical mechanisms almost indefinitely; may express itself through these mechanisms; may make the body and the environment an expression of the spiritual life.

Interaction, therefore, is in two senses evidence for teleology. It shows that purpose and mechanism coexist and that, within broad limits, human purpose may control mechanism. It suggests, also, the consideration that if human minds may exercise intelligent control of a mechanical environment, it is not unreasonable to believe that a supreme mind exercises supreme control over all mechanism.

(6) Natural Law. Natural law is exploited to the fullest extent as an argument against teleology. There is better reason for regarding natural law as an argument for teleology. Science itself has, or should have, no metaphysics, either mechanistic or teleological. It is concerned only to describe, analyze, and correlate the observed facts within the field of its investigation. By a vigorous resolve of will the man of science may commit himself to an exclusively scientific attitude, and abjure all interest in the profounder questions of philosophy. He is then, like August Comte, a positivist, confined to a description of certain orders in experience.

The mechanist, however, goes much further and holds that this description is ultimate metaphysical reality.

The human mind will not permanently submit to the regimen of an intellectual asceticism. Any theory, like positivism, that forbids man to ask real questions about real matters of fact will forever be in unstable equilibrium. Hence, a merely descriptive or positivistic account of natural laws will never satisfy thought. Just as thought in physics presses on in the study of the constitution of matter, and is not satisfied with the atom until it is analyzed into protons and electrons; and again will not be satisfied with protons and electrons until they can be analyzed or reduced to some common entity; so metaphysical thought will not be satisfied until some formula is found which reasonably interprets the interrelations of all the laws of science.

To success in the high enterprise of metaphysics at least one factor is essential. Metaphysics must not merely say, This law is true, that law is true. It must suggest some principle that interprets how any universal law and how many such laws in relation to each other can be true. Light, science tells us, travels about 186,000 miles a second; all light, everywhere, we believe, conforms to this law. If this or some analogous fact is the last word that thought can find to say about the speed of light, we have solved many important problems. But the solution itself is a mystery. Why should light be eternally faithful to itself? Why should it always travel as though it knew mathematics? Why should its laws interplay with those of electricity and gravitation? They do, and there's an end on't, say positivist and mechanist. The teleologist, however, seeks a more connected, a more coherent view of the universe. He sees in the laws of light and of all forms of energy the expression of an eternal rational purpose. Purpose, as we know by our

finite experience, performs the function of unifying and organizing complex details, whether of the inner life or of the environment, and making every detail serve an end. Purpose is a real fact which is also a principle of totality, a spirit dwelling everywhere in a collection of particulars through which alone they have meaning. To say that a book expresses the purpose of its author is a more rational explanation of its meaning than to say that it was set up by a linotype machine. If we regard the laws of light and all laws of matter as the manifestation of the purpose of a supreme reason, we cannot pretend thereby to have solved every problem; but we may well maintain that we have dealt more reasonably, that is, more coherently, with the evidence of natural law than has the mechanistic metaphysician.

§ 3. OBJECTIONS TO TELEOLOGY

It might be said that the objections to teleology have already been investigated in the previous chapter. Every argument for mechanism is an argument against teleology; and every defect or difficulty in the arguments for teleology is an argument against it. Nevertheless, it may be that some important points have not come to light in the foregoing treatments. A systematic examination of the objections to teleology will perhaps serve as a check on our previous results.

(1) THE LOGICAL OBJECTION.[1] The logical objection runs as follows. Teleology argues that mechanism is not metaphysically adequate, and substitutes for the principle of mechanical cause the principle of purpose, which finds the

[1] The nomenclature and parts of the argument in the first four objections are taken from William Stern, *Person und Sache*, Vol. I, pp. 251-253.

true explanation of the present in the future, in the ends yet to be realized. Now, says the critic, this is logically absurd. It means that the non-existent future explains the existent present. "Teleology is a paradox."

The teleologist, however, does not admit that this argument is final. He may point out that there is a somewhat analogous difficulty in mechanism; for the past, to which it appeals, is as non-existent as is the future! Mechanism also explains the existent in terms of the non-existent. The paradoxical character of teleology (and of mechanism) arises, evidently, from the nature of time. If time be regarded as real in itself apart from mind, it may be that teleology is paradoxical. But if the true nature of both time and purpose be revealed in personality, nothing is clearer and less paradoxical than the fact that personal consciousness can anticipate in plan and intent that which is not yet real in the world of nature. As long as we think materialistically, or "on the impersonal plane," as Bowne put it, the paradox remains. As soon as we think "on the personal plane," it vanishes. Physically it is impossible for two things to be in the same place at the same time, or for the future to be present; in personal experience, it is an every-day matter for the minds of two persons to think about the same place at the same time, or for thought about the future or past to be present.

(2) The Etiological Objection. The etiological objection is made on behalf of the law of cause and effect. Every event may be completely explained as an effect of preceding events, says the mechanist. For purpose to direct any event would involve a lawless intrusion into the order of law. "Teleology would be a miracle."

This objection, however, begs the question. Assuming that mechanical explanation is the only valid type, it goes on

to say that there is no room for teleology if mechanism has already occupied the entire field. This is fairly obvious. The teleologist would refute the etiological argument by reference to the objections to mechanism (Chapter VIII) and to the evidence for teleology.

(3) THE DYSTELEOLOGICAL OBJECTION. Teleology is the theory that there is purpose in the universe. Dysteleology calls attention to the many facts that appear to serve either no purpose or conflicting purposes What is the purpose of Job's boils, or of the World War, or of the Japanese earthquake of 1923, or of the American Senate of 1924? Here we have the problem of evil. There are facts that seem to point to purpose. There are as many or more facts that seem to point to an indifferent or malevolent universe. To select the teleological facts while ignoring the dysteleological is to deceive oneself. "Teleology is an illusion."

It must be admitted that this argument is the most serious objection to a teleological metaphysics. That it is not fatal is indicated by the following considerations.[1]

Life as it faces us is full of apparent contradictions, which it is the task of thought to solve. It is never safe to take appearance for reality. Neither things nor persons are what they seem at first sight to be. The world of our sensations and the world of physical science are very different. The world of sense is chaos. The world of physics is law. The wind seems to blow where it listeth. Really it blows in accordance with the little-understood laws of anemology. All truth is a solution of the riddles given in immediate experience. This is supremely the case with metaphysical truth. It is self-evident that our experience, as it comes, seems to be a strange confusion of purposive and purposeless events.

[1] See Chapter V, § 13.

Teleology offers itself as a coherent explanation of all these facts of experience. It cannot be refuted by proof that there are contradictions in purpose-experience any more than physics can be refuted by showing that there are contradictions in our sense-experience.

It must also be remembered that there are objections to every possible theory. The teleologist holds that there is less relative objection to his view than to any other.

Experience seems to suggest that the world has a mixed purpose, if any; but the intellect seeks a coherent explanation of experience, and cannot accept apparent contradiction at its full face-value. Pessimists have sometimes held that the universe was realizing evil ends, relentlessly thwarting, or at least ignoring, value and goodness. This means that the apparent good in life is interpreted in terms of the evil. For the pessimist, the difficult problem is not the existence of evil, but the existence of good. How can it be that there is so much good in an evil universe? How comes it that the spiritual life has endured for centuries and has never been extinguished? The problem of evil is difficult; but so is the problem of good.

The alternative theory that appeals to most contemporary philosophers who reject teleology is the theory of a neutral or indifferent universe. According to this view, reality is unconscious and purposeless. Men and their purposes have been produced by an order of being that has no plans or intentions. For this view, it is absurd to ask about the problem of evil or to inquire into metaphysical teleology. The whole problem of the purpose of human existence is laughed out of court or waved to one side with a graceful naturalistic gesture. For contemporary naturalism, positivism, and mechanism, good and purpose are facts of human nature, but they mean nothing to the power that causes the world. This

solution, however, seems to be too easy-going. It evades facts. It is a flight from reality. It ignores the objective evidence for design in nature and sets off human purpose too sharply from the rest of the universe. Bertrand Russell's universe, for instance, leaves Bertrand Russell's zeal for social idealism unexplained. The teleologist, therefore, may appeal to the fact that other possible views are more difficult than his own, and that his meets the objections that theirs fail to meet.

It is true that there are, as the dysteleologist urges, many facts that seem to serve no purpose or an evil one. Nevertheless, the teleologist may reply that many, if not all, of the evils of life can be seen to serve some purpose. As scientific progress goes on, the range of reality that is seen to serve or to be capable of serving the ends of human life is being indefinitely increased. Often we experience use from the useless and good from the evil. Out of suffering grows strength; out of frustration, patience; out of sin itself, increased zeal for righteousness. It is true that there are cruel and sordid evils, the purpose of which is far from clear; yet to confess that some problems are unsolved is not to prove them insoluble. For many of the ills of life there is no clear-cut theoretical solution. Yet if man meets those ills that he cannot understand with the best there is in him, he is capable, within limits, of making all things work together for good. The spiritual progress of humanity pushes these limits farther and farther out. If the race were to bear its due share of responsibility, faithfully striving for the possible best, the cosmic enterprise would be more successful. Yet it remains true that cyclones and earthquakes, heredity, and the insecure and petty place of man in cosmic space are not caused by man. These facts entail ills that man may never fully control.

Reality, then, is not exactly as we should like it. But the object of philosophy is not to describe the world as we wish it were; philosophy is concerned only with the facts and values of the world as it is. Taking the world as it is, even the pessimist must grant that it is fairly well adapted to the development of strong character and initiative in man. At any rate, it is better fitted to be a gymnasium for violent exercise than to be a bed of roses for indolence. It is, on the whole, a stimulus, not an opiate. It is a world in which "we fall to rise, are baffled to fight better"; a world better for the brave than for the coward. It is such a world as leads the idealistic poet to

> "Welcome each rebuff
> That turns earth's smoothness rough,
> Each sting that bids nor sit nor stand, but go!"

Every corner grocery contains experts who could improve the universal scheme. Not only so, but broken hearts and tortured bodies often find no meaning in their suffering. A Helmholtz announces that he would consider himself a failure could he not make a better optical instrument than the human eye. Be we foolish or be we wise, our ways and the ways of the universe are not one. There is a tragic discrepancy between what we desire and what we are able to find. Yet it remains true that the mystery of life is not so utterly dark but that some meaning can be found wherever there is a mind able to meet circumstances with ideals. The world is not adapted to much that we yearn for; it is adapted to be the scene of a slow and severe, but greatly rewarding, development of character and thus of the other values.

All that has been said in answer to the dysteleological objection has, the reader will note, been expressed with reservations. The problem of evil admits of no final, no

completely enlightening solution. For every honest mind that seeks to reconcile the evidence for purpose in the universe with the facts of evil, there remains the confession, "I do not understand it all." The teleologist would, however, say that every theory of the meaning of life contains some problems that the human mind has not been able to solve. He would add that teleology not only explains a wider range of facts than any other theory, but it offers a more reasonable hypothesis regarding what is still unexplained. If the purpose of the universe originates in a Supreme Mind, it is evident that a finite and temporal mind could hardly be expected to read the whole riddle. If the purpose of the universe be eternal, it could not be fully expressed at any one time nor even in the whole period of past human history. A man could not completely express his life purpose in a single act or in any series of acts short of his whole life; how much less could the Eternal express his whole plan in a fragment of time! Further, if the purpose of the Eternal be cosmic, how unreasonable it would be to suppose that every fact in the universe was intended solely for human convenience! The human individual should recognize that society does not exist for him alone, but that he, in part at least, exists for society; so also the human race should acknowledge that the universe does not exist for it alone. A large part of the destiny of man may consist in his recognition of this fact. He will find himself when he loses himself; when he ceases to make his feelings and desires the criterion of the cosmic plan and learns to seek the objective truth, to serve the universal order, and to submit to his lot as a small part of this great universe.

A critic might, however, object to the foregoing argument on the ground that it is what the logic books call the fallacy of *argumentum ad ignorantiam.* It seeks, so the critic might

say, to support teleology on the ground that we do not know what the infinite and eternal purpose is, but nevertheless we "faintly trust the larger hope" that when the universe bears heavily on human life it may nevertheless be serving the purpose X. Appeal to X, to what we do not know, is an insecure foundation on which to rear a metaphysics.

Such criticism leaves out of account the evidence on which the teleological view is based. If there were no evidence for teleology other than the ills of human life and the hope that the cosmic purpose might somehow redress them or be realizing through them extra-human values, its case would be weak indeed. There exists, however, considerable positive evidence for teleology. There is positive reason for believing that there is superhuman purpose in our world; and there is equally positive reason for believing that we do not know all there is to know about that purpose. Therefore the argument now under consideration is an attempt not to infer knowledge from ignorance, but rather to show that our partial knowledge of purpose implies larger purposes of which we are ignorant. The argument, then, is not fallacious.

(4) The Anthropological Objection. The fourth and last argument against teleology (according to Stern) is the anthropological. This objection is very familiar. It urges that the whole idea of purpose or end is derived from human psychology, and that only human conceit would make bold to read the cosmic process in terms analogous to human experience.

It is true that teleology (and all idealistic philosophy) interprets reality from clews found in human experience. It is also true that all thinking about reality must do this very thing. The common-sense realist and the materialist think that reality is like some of their sense-perceptions; the

romanticist finds reality analogous to his emotions; the natural scientist holds that it is like certain theoretical models grasped by his conceptual thought processes. All thinking, then, is unavoidably anthropomorphic. A theory is not false because it is based on human experience. Indeed it would be patently false if it ignored that experience or if it be an unreasonable reading of it.

Another aspect of the anthropological objection is often urged. It is argued that man is so insignificant and the universe so vast that if there be a cosmic purpose, man's place in that purpose must be negligible. What is man compared to the solar system, the stellar universe, and possible universes beyond? Herbert Spencer and other thinkers have been impressed by this thought. A distinguished astronomer has suggested that if the solar system were in the center of the universe, it might be in order to regard man as an object of interest to universal purpose; but since it is not central, teleology is disproved. Thus does a great scientist naïvely make size and location the criterion of value!

Man, it is true, is insignificant in space and time. But space and time are not the criterion of purpose or value. Value is an experience of conscious personality. The place of personality in the realm of ends is not to be determined by the space that man's body occupies or by the time that elapsed before he was born, but rather by the values that he is capable of realizing. If he can apprehend truth and goodness and beauty, his life has a purpose and value that could never be attributed to infinite stretches of space in which no mind existed. Further, it should be remembered that the existence of astronomical space and time is a fact that man's mind is capable of knowing. The "anthropological" argument, then, does not refute teleology.

(5) The Evolutionary Objection. Stern's four points do not exhaust what has been said against teleology, although he regards the list as complete. The theory of evolution is believed by many to have destroyed the possibility of a teleology. Before modern evolutionary theory developed, it was generally held that every species of organic life was due to a special act of divine creation. Every organ and function that adapted life to its environment was regarded as evidence of design. The theory of evolution has rejected the "special creation" theory in favor of the view that regards all forms of life as blood-relatives, the more complex and highly developed being "descended" from the simpler and lower types. Evolution has also explained the adaptations to environment by the theory of natural selection. Natural selection is based on the fact that among the offspring of any parents there are some better adapted to survive than others. Those that are adapted to survive do survive, and pass on their biological characters to following generations. The non-adapted perish. Hence present adaptations are not the work of a creator who made organisms as they are, fully equipped for the battle of life, but they are the result of a sifting-process, which involves the apparently aimless birth and destruction of countless maladjusted or poorly equipped organisms. Thus evolution appeared to be unfriendly to teleology.

In another direction evolution seemed to undermine belief in a world-purpose. Traditional philosophy and theology had usually regarded the purpose or purposes embodied in the universe as eternal and unchanging. The realm of Platonic Ideas, or the mind of God, or Substance, or whatever enjoyed high standing in the philosophic world, was indeed sublime, holy, "numinous"; but it was static. Its sole business was to be; it was above beginning and becoming, change

and time. The theory of evolution has laid rude hands upon this ark. It sees in change and growth and the emergence of genuine novelties the most characteristic features of our world. If evolution be true, the reality that embodies itself in the world-process cannot be eternally static. This has led some, notably Bergson, to the opinion that there can be no eternal world-plan. It must be admitted that many philosophical descriptions of God and the Absolute are notoriously difficult to relate to the empirical facts of life.

Granted that the notion of an absolutely timeless and unchanging purpose fails to do full justice by the facts of experience, it does not necessarily follow that mechanism is our only alternative. Bergson, for example, is even more hostile to mechanism than to "finalism," as he calls teleology. The chief arguments against mechanism are unaffected by the evolutionary view. Indeed, evolution, rightly interpreted, adds much to the case against mechanism. What is needed in the face of the evolutionary facts is not a return to mechanism but a better conception of teleology.

It may be that less radical change is needed than might appear at first sight. Heraclitus, the first great philosopher of change, taught that everything changes except the "logos," or law of change. An adequate philosophy of evolution must reconcile change with permanent law. There must be place for real growth, real novelty, "emergent evolution," in our universe; yet there must be coherence, reason, meaning, purpose, in the whole process. Many traditional formulæ have severed these two demands and have satisfied the one at the expense of the other. If we examine the reality that is most intimately present to us, our own personality, we find there an illustration of how change and identity, novelty and law, time and transcendence of time, are realized at once in concrete unity. Here we have the

clew that gives rise to the metaphysical hypothesis of personalism. If the ultimate reality is a person, indefinite variety and change in detail are compatible with a fundamental law that all change and time must obey if any rational order is to be in the universe. A person of creative energy, of infinite patience, and with plenty of time is a conception not without difficulty itself; but it appears to the present writer to come nearer to solving the problem than any substitute that has been devised.

Thus we arrive at an evolutionary, personalistic teleology. Through it, the "arrival of the fit" becomes intelligible. While it banishes the notion of petty, meddling interventions on the part of deity, it opens new vistas of cosmic coöperation and divine patience; it points to consciousness and spiritual life as the goal of evolution,[1] and furnishes modern intimations of immortality.

(6) The Positivistic Objection. A different sort of objection has come from thinkers of a positivistic turn. They are fundamentally opposed to any metaphysics, whether mechanistic or teleological. They would confine the task of knowledge to the description of observed uniformities. If mechanical relations are found to obtain among the objects of experience, well and good; if certain adaptations exist, certain ends are realized, also well and good. But, the positivist will say, why leave these experienced facts for an expedition into metaphysical speculation? A positivist like Auguste Comte may go so far as to admit that if we are going to have a metaphysics, the hypothesis of intelligent will—that is, personalistic teleology—is preferable to mechanism.[2] But all metaphysical speculation, no matter how plausible, is abhorrent to the positivist.

[1] See Mathews in the *Yale Review,* Jan. 1921.

[2] See *A General View of Positivism,* p. 50, quoted in Bowne's *Theism,* p. 73.

This standpoint rests on the assumption that there is less difficulty in positivism than in metaphysics. It is true that there is a great deal of difficulty in metaphysics; and it is true that positivism seems to be simpler and less artificial than any metaphysical system. It seems intellectually humble. But the student of philosophy who faces the problem of truth, or of knowledge, or of universals, or of consciousness, will be inclined to think that the positivist reaches his paradise by fleeing from reality and by evading the problems in his own position.

If one ignores the problems and refuses to acknowledge that they are given in the very warp and woof of experience, one may be a positivist; but if one faces the need of giving a coherent account of all the facts, one is forced into metaphysics. Indeed, the mind confronts the alternative: solipsism or metaphysics. Positivism seems to be a refuge only to him who does not desire to see all the facts in their relations, and who evades the problems occasioned by the presence of mechanisms and organisms in the same world. We are driven by the logic of coherence beyond the stream of consciousness as it comes to the reconstruction of experience in the special sciences; and beyond positivistic science to the metaphysical interpretation of experience taken as a whole. However precise an investigation may be within its own field, the work of thought is not done until this field is set in relation to all other fields; and when this is done, metaphysics is present. That the task of thought is hard or that men do not agree about how to accomplish it is a stimulus to human thought rather than a permanent inhibition. The positivistic objection, therefore, is one that arises from weariness rather than from the nature of thought.

(7) THE AGNOSTIC OBJECTION. In a sense positivism

is agnostic; but agnosticism has another sort of objection to file. The spectator of the debate between mechanism and teleology might take the view that all of the arguments for teleology are ingenious and plausible, but they come to nothing for one sufficient reason: they are not able to answer the question, What is the purpose of the universe? To say that the universe has a purpose, but I know not what it is, may be a statement of fact. It is not an interpretation of experience. To pretend, on the other hand, that one knows the purpose of the universe is magnificent, but it is not philosophy. In either case teleology is futile.

The agnostic is partly right. To appeal to the principle of purpose and to profess complete ignorance of the purpose at stake is an empty gesture. Is it, however, clear that it is utterly unreasonable to say that we have some knowledge about the purpose of the universe? To dismiss all claims to such knowledge by the use of derogatory epithets is not enlightening. To call them pretentious or speculative proves nothing.

All serious enterprises of thought are speculative. For the historian to assert that in A. D. 1925 he is able to describe truly much of what happened in 1925 B. C. is, when one considers all that is involved, a pretentious claim of human reason. The science of astronomy, the theory of relativity, the every-day assertion that we know that other minds than our own exist are all pretentious in the sense that they involve many assumptions and assert knowledge of what we can never experience directly. But they are justified because they start with the evidence given in our experience and construe it reasonably.

Perhaps philosophy may be justified, by parity of reasoning, in laying claim to a partial but real knowledge of the purpose of the universe. Our experience reveals what the

universe is doing in our neighborhood. If the evidence for teleology be valid, this world of our experience must be an expression of what the universe intends. If so, it may at least be said that it is the purpose of the universe that there should be a developing order in which consciousness should arise and human persons should discover and realize the values of life. The development of consciousness and its values is the highest end of which we are able to form a conception; be our theory what it may, the universe is actually engaged in realizing this end. Whatever else the Eternal may have in hand, this is the highest we know of; and the patient development of a free society of persons constantly growing and achieving, albeit in an essentially tragic world, is an end not unworthy the aspiration of a God. Here we find ourselves face to face with the problem of religion, the further treatment of which will be postponed to the following chapter.

§ 4. REVIEW OF THE POSSIBLE SOLUTIONS OF THE PROBLEM

The case for and against both mechanism and teleology has now been surveyed. Considerations of method have taught us the advantages of a synoptic view of any problem. At this point, therefore, there will be introduced a brief review of the possible attitudes that thought may take in the presence of the evidence. These attitudes are (1) positivism, (2) ultimate mechanism, (3) a dualism of mechanism and teleology, (4) pragmatic skepticism, and (5) ultimate teleology.

(1) Positivism is the refusal to think about metaphysical problems. It washes its hands of the whole controversy. It wishes to be neutral in thought and action in the presence

of the profoundest problem of human destiny. The defects of this position have already been discussed.

(2) Ultimate mechanism is the view that grows out of the belief that the methods and categories of physical science tell us the fundamental truth about our experience as a whole. For the mechanistic view the teleological facts are all to be regarded as accidental; they are to be explained on mechanistic principles as due to mere chance. Every page of Shakespeare, of Dante, and the Bible, and the whole of civilization, are viewed as the inevitable but unintended outcome of a universe which, in the last analysis, is nothing but the motions of unconscious material particles.

(3) The dualism of mechanism and teleology is a position taken by many great thinkers. This point of view regards the evidence for mechanism as being irrefutable, for the sciences both presuppose and demonstrate it. It also regards the evidence for teleology as irrefutable, for experience shows beyond doubt that ends are realized in nature and by man. Hence this view regards each as equally true; each as universally valid; but neither as superior to the other. This dualism has been expressed in different ways. Each is said to be "a point of view" for interpreting experience,—mechanism true of phenomena, teleology of noumena; or mechanism is wholly valid in the world of nature, teleology in the world of mind.

This position is attractive. It seems to be a convenient resting-place for thought and compromises the quarrel between the contending parties by granting that both litigants are right. The solution appeals to men of science, who feel that it leaves science supreme in its field yet opens a way for the recognition of purpose and value in life.

There is, however, one serious objection to this dualism. It ignores the fact that a mind is a unity, and that all the

ideas in a mind must be on speaking terms with each other. The question of the relation between what we think about the mechanisms and what we think about the ends must arise. Not only is the mind a unity, but the universe itself is in some sense a unity; at least it is unified enough for the mechanisms and the purposes of life to be intertwined. Our world is an interacting order. If, however, any part of it, as phenomena, or nature, is wholly ruled by mechanical law, there is no room in that part for the action of the laws of purpose. Yet if experience and reason show anything, it is that body and mind, phenomena and noumena, mechanism and purpose, must be interpreted as affecting one another.

The assertion that each is true in its own field is too blandly abstract, too artificial. It is inadequate to account for the actual processes of life in which mechanism limits purpose, and purpose, within limits, uses mechanism.

(4) Pragmatic skepticism is a name that may be used to describe Vaihinger's philosophy of the "As If." Like the dualists just described, Vaihinger feels the force of the argument for both positions; but he also feels the force of the objections to dualism. So strong do the arguments seem to him, that he is unwilling with the positivist to wash his hands of the whole matter; but so strong do the objections seem to him that he is unwilling to commit himself either to mechanism or to teleology. In this awkward *impasse,* Vaihinger takes refuge in the formula that we must act and think "as if" both mechanism and teleology were true, without yielding belief to either or to any combination of both. Each is useful, neither is true,—a formula well described by the name pragmatic skepticism.

The "as if" mood is one into which a ripe scholar like Vaihinger may fall, to say nothing of the perplexed beginner. It has the advantage of being undogmatic; of being open

to the facts in all directions; and thus of being catholic and inclusive in spirit. Yet it is a counsel of despair and should be accepted only if it can be definitely shown that every other position is impossible.

(5) Ultimate teleology remains to be examined. Perhaps Socrates was right when, after listening to the mechanistic theories that Anaxagoras was expounding, he found them insufficient to explain his own experience of loyalty to the laws of Athens, and said, "I thought that I had better have recourse to the world of mind and seek there the truth of existence."[1]

The fundamental basis for the claim of teleology to be the truth about reality is this: that mechanism leaves the teleological facts unexplained, while teleology not only includes the facts that mechanism omits, but also includes and interprets mechanism itself. If this claim can be made good, teleology will be shown to be the most coherent, and therefore the truest, philosophy.

§ 5. PURPOSE AS CONSCIOUS OR UNCONSCIOUS

Before the high claim of teleology is further tested, it is well to clear up, if possible, an important ambiguity in the meaning of purpose. Up to the present in our discussion, the question has not been clearly raised whether teleology means any realization of ends, conscious or unconscious; or whether it is restricted to conscious purpose.

It is evident that the human organism carries out many habitual, instinctive, and reflex acts that are not consciously intended at the time by the person; yet many of these acts are teleological in that they serve biological or other ends. Much of the evidence for teleology is drawn from sub-human

[1] *Phaedo,* 99D, tr. Jowett.

forms of organic life, in which the presence of conscious purpose is doubtful, and from the adaptations between life and the inorganic environment. Inorganic nature certainly seems to be unconscious. The influence of "suppressed desires," subconscious suggestion, and the like over our normal consciousness has been demonstrated by psychology. Hence the interpretation of the world as energy or will without conscious purpose has come to expression in various thinkers, as Schopenhauer, von Hartmann, Bergson, and some of the psychoanalysts.

It is, however, very difficult to see the interpretative value of the concept of purpose when it is conceived apart from consciousness. Conscious purpose represents the future in the present, foresees, transcends time, and thus possesses properties that are clearly foreign to the principle of mechanism. Unconscious purpose is a concept from which almost everything that is significant has been stripped; it cannot foresee the future, it does not transcend time, it gropes blindly toward its goal. The difference between unconscious purpose and mechanism is negligible. An interesting illustration of this fact is found in the way Bergson vacillates between the *vis a tergo* and conscious purpose in describing his *élan vital.*

The only advantage of unconscious purpose is that it calls attention to numerous facts that point toward a teleological explanation. Like mechanism, however, it explains purpose in terms of no-purpose, the present in terms of the past. It is a mere label for the fact that mechanisms realize ends. Unconscious purpose may be useful as a concept in psychology, biology, sociology and other special sciences, where no "ultimate" explanation is needed; but it is not enlightening in metaphysics, where coherence is demanded.

If the universe is the functioning of conscious purpose, it

would be reasonable to suppose that a particular human individual might be caused by the Supreme Purpose to do certain acts which he, as an individual, did not intend. The Universal Purpose might well consciously intend that reasonable ends be attained in the life of a plant or in the constitution of inorganic matter, without giving to plants or inorganic matter an individual personality or power of conscious choice. Such is the hypothesis of personalism, which interprets the existence of the whole universe as an expression of the purpose of One Supreme Person. Personalism asserts that its principles embody, more reasonably than any other hypothesis, the facts of "unconscious purpose" and of mechanism. Such an assertion has been implicitly defended throughout this volume. It remains to consider whether personalistic teleology can do full justice by the facts of mechanism.

§ 6. THE PLACE OF MECHANISM IN A TELEOLOGICAL UNIVERSE

Can teleology explain mechanism more reasonably than mechanism can explain teleology? An affirmative answer to this question does not imply that mechanistic laws or empirical facts can be deduced from any teleological formula. It means only that all the facts of the world of our experience, as given,—if indeed it be "given"—and as interpreted by mind, can be understood more coherently if we accept seriously the view that this is a universe of purpose. To say that this is a universe of purpose means that everything that is is in some sense a manifestation of purpose; that nothing is real save purposing beings, namely, persons. In such a universe there is a Supreme Person and such other persons as his purpose may will to exist; physical nature is real only

as the concrete functioning of the purpose of the Supreme Person;[1] universals and values are the laws of his purposing. Some of the reasons for this position are as follows.

(1) MECHANICAL LAWS THE EXPRESSION OF PURPOSE. Machines made by man embody purpose. Man's purpose may use the mechanisms of nature for subduing her to human ends. It is at least possible that the whole system of mechanical laws may serve the divine purpose as the system of laws in a watch serves human purpose. This view is what is commonly called the immanence of God in nature. It means that all the laws of science are more or less adequate accounts of the modes of divine procedure. Evolution, for example, is thus simply God's way of working, his method of realizing purpose.

It must, however, be admitted that if the mechanistic laws were the whole truth about nature and were merely labeled "divine purpose," we should have gained nothing for coherent thinking.

(2) MECHANISTIC LAWS ONLY RELATIVELY TRUE. Mechanistic laws are true, as we have seen, only under abstract, hypothetical conditions. They are not and do not pretend to be a complete and concrete explanation of nature, either physical or psychic. Within the system of nature there are the teleological facts, such as "the arrival of the fit" and the interaction of mind and body. Given conformity to certain ideally defined conditions, the mechanical law is obeyed. But many of the conditions, such as the origin of consciousness and its values, are given by the uni-

[1] It would also be consistent with the general position of personalism to view matter as made up of "monads," *i. e.*, centers of will-energy or elementary selves, related to the Supreme Person as are human persons. James Ward, and others influenced by Leibniz, incline to this position. The evidence for self-determination on the part of matter does not seem to the present writer to warrant this.

verse in a non-mechanical way. Hence mechanical law is not absolute, but relative to the rest of the universe.

(3) THIS VIEW IS THAT OF SCIENCE. Science, when true to her ideal, does not pretend to be philosophy. Every science deals with a portion of reality, abstracted from the rest. Its laws are true for its field considered apart from the rest of the universe. Science can describe the military uses of chemicals, but cannot predict or interpret what the rest of the universe (human purpose in particular) will do with the properties described. The laws of these properties are what they are, says our relativity-conception; but no mechanical account can tell how those properties are going to relate to the destinies of the human race. Reality contains the realms in which mechanical explanation is valid. It contains so much more that it cannot be fully defined in terms of mechanism.

(4) TELEOLOGY EXPLAINS FACTS OMITTED BY MECHANISM. If the world be regarded as an expression of purpose, the qualitative variety of our experience, our feelings, experienced colors and sounds, from which mechanism abstracts, may be viewed as serving esthetic or moral or religious ends. The fact of novelty or "emergent evolution" finds an interpretation in the unitary plan of the Supreme Person, a plan that accounts for novelties more reasonably than mechanism; for mechanism cannot account for them at all! A place is obviously found in a purposive universe for the properties of organic wholes which cannot be explained in terms of their parts. The difficulties of space and time are solved by a view that sees that space and time themselves are dependent on and meaningless apart from a world-purpose, the only sort of concrete reality that can at once include and transcend both space and time.

In short, teleology not only finds room for the truth of

mechanical laws within itself, but it also provides for facts and laws that mechanism ignores or leaves unexplained. The mechanist is loyal to scientific method; to some observers he has given the impression of being more loyal to the method than to the facts of experience. If a method exclude real facts, that method cannot lead to philosophical truth. Teleology is also loyal to scientific method; but it has a broader and more inclusive account of the facts.

(5) Why the Appearance of Mechanism in a Teleological Order? If teleology be taken seriously, the question must arise: Why, in a world of purpose, should there be mechanisms? Why should a realm of ends appear like a realm of mechanically determined effects? What is the value of mechanism? If teleology cannot answer these questions, it is placed in a difficult position. Suggestions toward an interpretation of the purpose of mechanism are offered cautiously.

It is, at any rate, clear that knowledge of mechanical law enables man to control his environment. If there were no laws that could be known and depended on, all mastery of nature would be impossible. No constant mechanisms, no effective freedom. Even defenders of mechanism contend for this truth; but it is obviously more consistent with a world in which a fundamental purpose adjusts the relations of man and his environment than with a world in which there is no ultimate purpose or freedom.

More specifically, the realization of value is made possible by mechanisms. If there were no psychological mechanisms, we could not depend on any striving's having any success; without them, values could neither be realized nor conserved nor communicated save in purely haphazard way. If every person were pursuing ends in a universe where there was no mechanism, the result would be pure chaos until

some coöperative procedure were agreed on. The laws of mechanism are the principles of coöperative procedure for the realization of values.

Mechanical law is one expression of rationality, even apart from other values realized through it. It is not, indeed, a complete revelation of the nature of mind; it embodies analytic rather than synoptic reason; but it is one way in which a rational mind must express itself, whether that mind be human or divine.

Finally, the relation between mechanical and teleological explanation serves the purpose of expressing the subordination of lower to higher in the universe. According to the view here presented, mechanism is always and everywhere subordinate to rational purpose. This is another way of saying that the lower, the beginnings, the elements, find their explanation in the higher, the consummations, the wholes. This is the heart of all idealistic philosophy and is a truth that the mind must recognize when it views experience synoptically.

§ 7. THE RELATION OF TELEOLOGY TO THE PROBLEMS OF PHILOSOPHY

Teleology, as interpreted in this chapter, is the view that the universe may be best understood as the system of purposes of a Supreme Person. In order to correlate results, a brief statement is offered of the significance of this view for the other problems discussed in the book thus far.

Chapter I. Philosophy is an attempt to understand and interpret the purposes of the universe as revealed in human experience.

Chapter II. One of the fundamental purposes is the attainment of coherence in human minds as the only rational approach to the coherence of the Supreme Mind.

Chapter III. Knowledge of purpose other than that of the present idea of the human knower is possible (dualism).

Chapter IV. Physical things can be understood best as the energizing of the rational, purposive will of the Supreme Person.

Chapter V. Universals and values have meaning only as the reason and purpose of conscious mind, finite and infinite.

Chapter VI. Human persons are genuinely real and cannot be explained in mechanistic or physical terms. They are clews to the nature of the universe.

Chapter VII. Personalism is the philosophical standpoint that does fullest justice by all the facts of experience.

Chapter VIII. There are mechanical laws in the universe, which, however, are incoherent if taken as a complete account of reality.

Chapter IX. The recognition of purpose as a fundamental principle of explanation provides for the facts of mechanism and for other facts that mechanism omits, and also is consistent with the results reached by the investigation of the other problems of philosophy.

If these conclusions be true,—and each mind will decide for itself whether they commend themselves to it or not—this world is a realm of persons, human and divine, whose calling is to realize both individually and collectively the whole range of true value. A complete philosophy would investigate in detail all the types of value in their relation to metaphysics. This book must forego completeness; but it will select one of the values for illustrative treatment. Religion will be chosen because it is one of the outstanding forms of value-experience. If its claims are true, it is the most significant fact in human history; if untrue, one of the most pernicious. The following chapter will, therefore, examine religious values.

CHAPTER X

WHAT IS THE PLACE OF RELIGIOUS VALUES IN LIFE?

§ 1. PHILOSOPHY INCLUDES THE INTERPRETATION OF ALL VALUES

The philosophic ideal, as every reader of this book knows, is to take everything into account. Doubtless the ideal will never be fully realized; but human thinking, even in its present lowly estate, might do better than it has done. One error, in particular, might be avoided by those that are trying to think their way through the problems, namely, the error of leaving whole areas of experience out of consideration.

It is true that it is psychologically impossible to be conscious of all possible experience all the time. It is also true that the present is an age of specialization. No man can know many fields thoroughly. In his special field one can be master of little more than a small corner lot. The philosopher is subject to the same law of life as are the plumber and the chemist. He must specialize. The specialization of the philosopher should, however, contain one element that is not essential to the good plumber or chemist. This element is use of the synoptic method in interpreting experience as a whole.

If every one who undertakes to think about experience were to cultivate the synoptic method, philosophical thought would be in healthier condition. The business of philosophy

is not to carry higher mathematics still higher or to propound some new theory in biology or in physics. It is, indeed, necessary for the philosopher to have a general knowledge of the results of the sciences and a specialized knowledge of some parts of the domain of science. This knowledge, however, be it general or special, is not truly philosophical unless it be incorporated into a synoptic view of experience. Hence, much that is written in the name of philosophy is not genuinely philosophical. It does not even try to be synoptic. The error that arises from this defect may be called the specialist's fallacy.

One of the commonest and most serious products of the specialist's fallacy is the tendency to ignore or to explain away the higher values. The method is as follows: The specialist centers his attention on some realm, such as biological life or sensation, and becomes well acquainted with its structure and laws. He then turns to some value, such as a moral obligation, an experience of God, or the appreciation of a beautiful sunset and, without adequate study of the value-experience itself, "explains it away" by remarking that a moral obligation is "nothing but" an organic response to a stimulus; or that an experience of God is "nothing but" an affectively toned sensation complex.[1] This is the specialist's fallacy at work. It can be avoided only by giving due weight to every type of experience and looking at the parts of experience as parts of a whole. The truth about experience must comprise the truth about all experience, including all experience of values.

[1] See J. B. Baillie's remarks on the futility of explaining moral life in terms of sense-perception in J. H. Muirhead, *Contemporary British Philosophy,* p. 16, n. 1.

§ 2. RELIGION CHOSEN FOR SPECIAL INVESTIGATION

Value-experience as a whole has been treated synoptically in Chapter V. In the present chapter, religion will be the subject of special investigation. The outcome of the controversy between mechanism and teleology naturally raises the question of religion: What, then, should be man's attitude toward the purpose of the universe? Further, religious values, more obviously than any other kind, involve reference to the nature of metaphysical reality. Religion, in most of its forms, believes in God, a divine plan of the universe, and human immortality. Philosophy, therefore, cannot afford to ignore religion, nor religion philosophy. Religion, moreover, includes or pretends to include, all of the other values. God is thought of as the source of all goodness and truth and beauty. A study of religion will imply some account of these other values.

From the practical as well as from the theoretical standpoint there is need for the philosophical study of religion; the present is a time of unrest and controversy. There is need for clear thinking about fundamentals. For this reason a special study of religion is particularly opportune.

§ 3. DEFINITION OF RELIGION

Religion might be defined either descriptively or normatively. A descriptive definition would state what common elements actually have been present in those bodies of experience and belief that have called themselves religious. A normative definition would undertake to tell what religion ought to be. A descriptive definition would be based on a study of the facts of religious experience without attempt-

ing to pass judgment on the value of the facts. It would not ask whether religious beliefs were true, religious feelings wholesome, religious conduct moral. It would merely state that such and such beliefs or feelings or practices have obtained wherever there was religion. Such a definition must take into account all the facts. Knowledge of the facts is collected both by history of religion and by psychology of religion. The former studies the growth of religion from its earliest forms to its present manifestations. The latter studies the structure and function of the conscious processes that enter into religious experience.

It is clear that religion may be defined, whether normatively or descriptively, in many different ways. We agree that when we are studying religion, we are studying such experiences as those of Christianity and Judaism, Mohammedanism and Hinduism, Buddhism, Confucianism and Shinto, not merely as they are now, but also as they have been; and we include the earlier bodies of experience, the religions of Greece and Rome, Babylonia and Egypt, together with the still earlier and more primitive forms from which they grew, some of which still survive among savages.

Beyond this agreement about subject-matter, there is great divergence in the definitions, as is illustrated by Leuba's collection in *A Psychological Study of Religion.* Hardly any two scholars agree on the same definition. A survey of the history leads the writer to suggest the following as a descriptive definition: Religion is the total attitude of man toward what he considers to be superhuman and worthy of worship, or devotion, or propitiation, or at least of reverence.

Any descriptive definition based on the common elements in historical religions is bound to be unsatisfactory. It will be abstract, thin, vague. Indeed, the whole attempt to catch the spirit of a growing thing by such a method is

doomed in advance to meager success. Would it not be absurd to define science in terms of the common elements in the various stages of the development of science?

Many have thought that it was more fruitful to describe religion from the psychological rather than from the historical standpoint. Some have been especially impressed by the thought-processes involved in religion, and so have defined it as belief in God or in some superhuman being or beings (so Martineau, Romanes, Tylor); others have regarded feeling as the characteristic of religion, and so have spoken of "the feeling of absolute dependence" (Schleiermacher) or a unique feeling of mysterious awe (which Otto calls "the numinous"); still others have believed that religion was essentially a matter of will-attitudes, and have defined it as "the recognition of all our duties as divine commands" (Kant) or even as desire for a better social order (so, essentially, Comte).

It is evident that the psychological definitions just mentioned all appeal to some one element in the conscious life, and so are the result of the so-called analytic or structural psychology.[1] It is pretty clear that the attempt to identify religion with a single element of consciousness is as untrue to the rich facts of religious life as was the attempt to identify it with the pale ghost of real religion that may be found to be common to all historic forms of religion.

Modern psychology is, however, not restricted to the structural-analytic method. It is tending more and more to make use of the functional method. This studies consciousness as a process in the light of the ends that it attains. Behaviorism is a one-sided development of functional method. It would define religion solely in terms of adjustments, such as occur in ritual, the religious dance, or in

[1] See Chapter VI, § 2.

the social functions of religion. A more sober and open-minded functional psychology has, however, been at work on the problem; and it is not going too far to say that there is approximately general agreement among recent students that all religious experience aims to perform one fundamental function, namely, to express man's attitude toward what he regards as the chief value or values in life.

In theology Ritschl made the "value" approach familiar. Höffding has probably contributed most to its currency in psychology of religion through his interpretation of religion as resting on "the axiom of the conservation of values." Pragmatism obviously is concerned with the ends attained by the religious, or any other, experience. In the works of men like Coe, Pratt, Hocking, Wright, King, Ames, Strickland, and others, the study of religion is approached from the value point of view.

Despite the worth of the functional method, no merely descriptive study of religion is philosophically satisfactory. Religion is, after all, a special field of experience. If there be given any description, no matter how accurate and no matter how functional, of any special field of experience, the really searching questions that the mind asks have not yet been answered. Indeed, they have not yet been raised. Descriptive science gives us the facts within a certain field. The mind will never know, as we say, what those facts "amount to" until it sets that field into relation to all the other fields of which we know, and views it in its relation to the whole of our experienced world. Dreams are facts. They have been thoroughly studied. Yet no study of dreams will decide whether dreams are "true" unless we also take our waking experience into account. Religion has been investigated by the psychologists. Yet psychology cannot

answer the question whether religion be a dream or an avenue to essential truth about the real universe.

Hence, in the long run, only a philosophical or normative definition will be satisfactory. The enterprise of working out such a definition is perilous; its results must be humbly and tentatively held. Such a definition would take into account the actual facts of religion, and yet judge and evaluate those facts by an ideal. There is the danger of degrading the ideal to the level of the actual; and the equal danger of floating off into a dreamy ideal without contact with the actual. Every such definition is subject to criticism by every thinker whose interpretation of experience as a whole differs from that of the person offering the definition. Nevertheless, nothing venture, nothing have. We venture the following definition: *Religion ought to be characterized by the feeling of dependence on a personal God and dominated by the will to coöperate with God in the conservation and increase of values.*

The proposed definition is frankly normative. It presupposes the descriptive definitions. It grants that there is much in the historical religions that is not "true" religion, just as there is much in our sense experience that is not "true" of the world of nature. The distinction between "true" religion and other types that are not so true may seem to be invidious. It must, however, be made sooner or later by every person who knows what he thinks about religion and who respects the demands of logic.

The definition has the merit of suggesting a clew to the development of the historical religions. If our defense of teleology in the previous chapters was valid, then history is the expression of a more-than-human purpose. The definition would thus be not only a formula of what religion ought

to be, but also a statement of the goal of the historic development of religion in all its forms. It would describe part of the purpose of the Supreme Person.

No formal exposition or defense of the definition will be given. It has grown up out of a study of the historical and psychological facts of religion and of theory of value, and must be tested by its adequacy as a normative interpretation of those facts. It is not the aim of the present chapter so much to defend a special definition as to consider some of the most important problems that grow out of religious experiences and beliefs.

§ 4. THE FUNDAMENTAL PROBLEMS OF RELIGION

(1) THE PROBLEM OF FAITH. Whatever form religion takes, it always implies faith in the object of its worship. In its earliest and crudest forms it believed in powers or spirits not visible to sense. The more highly developed a religion becomes, the more spiritual is its thought of God. "The things which are seen are temporal; but the things which are not seen are eternal." Religion, then, is an act of faith in a reality not accessible to sense perception.

Further, religious faith has always avowed itself to be something different from scientific knowledge. When the man of science says, "I know," he means that he can prove his assertion rationally. When the religious man says, "I know," he means that his religious experience gives him an intense conviction. He does not mean that he can work out rational proof of his "knowledge."

There are many minds that find it difficult to believe in anything that cannot be perceived by sense, and some that think it both unreasonable and dishonest to believe anything

that cannot be proved. Consideration must therefore be given to the question of faith in the supersensuous and to that of the relation of faith and reason.

(a) *Faith in the Supersensuous.* The fact that religion believes in what cannot be perceived by the senses would be a serious difficulty if the God of religion were supposed to have no relation to the world apprehended by sense. There would then be an incoherent dualism between the visible world and the divine order. But religion, even in its fanatical extremes, has rarely gone to such lengths. On the contrary it has held that while God himself or the gods are other than nature, God actually manifests or reveals himself in nature; and that nature remains an unexplained mystery apart from its origin in or creation by God and its control by him.

Religion, then, believes in a supersensuous that is needed to interpret the facts of sense. In thus believing, it follows the same path as science and philosophy have trod. The ideal of a coherent truth, the meaning of a universal law or a value, the existence of any conscious person—human or divine—all carry us beyond what the eye can see or could ever see. In so far as it is concerned with the supersensuous, religious faith involves no problem that is not given in the very nature of all thought, particularly all thought about consciousness. When I say that my neighbor, Tom Jones, is a conscious person, I have spoken about the supersensuous.[1] When I say, God is a conscious person, I have made appeal to

[1] It is for this reason that the discussion of consciousness in Chapter VI was fundamental to one's whole philosophical outlook. Behaviorism represents a thorough-going naturalism that will tolerate no object in its universe that cannot be perceived by sense. If "consciousness" exists, there is supersensuous reality, and the naturalistic system falls apart. Thus modern psychology has produced a type of thought that refuses to believe in the human self lest, if it admit this "supernatural" fact, it may logically be driven to believe in God also. A most extraordinary instance of the triumph of a theoretic ideal over real experience!

no essentially new principle; I have merely extended the logic of the old principle.

(b) *Faith and Reason.* Faith is trust, confidence, and devotion. Reason is analysis, synthesis, and synopsis. Each is an approach to the deepest reality of the universe. There is no *a priori* ground for regarding them as mutually exclusive. The object of faith gains nothing by being unreasonable; the object of reason is not necessarily untrustworthy. Nevertheless there has been long and bitter conflict between friends of faith and friends of reason, a conflict that breaks forth in new forms in every generation. The root of this conflict is the conviction that in religious experience man is facing a reality infinitely above and beyond himself. To the deeply religious nature it seems folly to suppose that man's reason can ever fully comprehend the power that is the source of man's being. "Such knowledge is too wonderful for me; it is high, I cannot attain unto it." Thus speaks religion.

The breach between the two is not, however, one that cannot be healed. Faith presupposes reason and reason faith. If faith is not to contradict itself or known fact, it must be reasonable. A faith "contrary to reason" (to use Locke's expression) is a faith in the self-contradictory, that is, the impossible and unreal. Just as faith needs reason, so also reason needs faith. If reason is to interpret the real world, it must exercise a certain amount of trust in the unseen,—trust in the best hypothesis that has been found to explain the facts, and trust that the same rational order prevails in the entire cosmos as has been observed by scientists and philosophers in our human corner of the universe.

Conflict arises from a false idea either about reason or about faith. If reason be confined rigidly to scientific method, nothing will be recognized as true that is not deduced

by cogent logic from necessary principles or from sense-experience or is not found by analysis to be an element of the given. There is little room for faith in such a conception of reason; and, we may add, there is little room for the complete functioning of reason itself. That reason is synoptic is a thesis that has been too often explained and defended in this book to require restatement here.

It is noteworthy that synopsis is closely akin to faith. Each is an attitude toward reality as a whole, and each goes beyond the merely deductive and analytic functions of the mind. If faith ventures to assert its independence of all reason, it is already on the road to self-destruction. A faith that forbids or fears analysis and withdraws itself from organic relation to the rest of thought has tacitly acknowledged its own irrationality and has thus surrendered its claim to truth. A faith that has faith in itself will not tremble on the brink of rational investigation.

For the wholesome development of faith and reason in a life, it is important that neither attitude should gain exclusive control of the mind. A man who always reasons and never trusts will not reason creatively or fruitfully. A man who always trusts and never reasons will find his faith becoming more and more mechanical. At times man should consciously cultivate the life of faith; at other times, the rational understanding of experience. Such alternation (as Hocking calls it) will yield a total life in which each domain is in harmony with the other.

(2) The Problem of Value. To say that religion is or rests on faith does not carry us very far unless we ask, Faith in what? Religious faith everywhere has included, as Höffding holds, a belief in the conservation of values. The problem of value is the most important problem for religion (see Chapters V and IX). Are values objective? Does evil

refute religious faith? These questions, fundamental for religion, have already been discussed in other connections and need not be taken up again at this point.

But there is one problem not previously mentioned, namely, the problem of the uniqueness of religious values. To raise this question is equivalent to asking whether there is anything that religion adds to the other values of life. In Chapter V the higher values were said to be character, truth, beauty, and religion. The question that now confronts us is whether religion adds anything to character, truth, and beauty; whether it makes any unique contribution to value-experience. Is religion in any sense autonomous?

Various answers to this question have been proposed. Some have held that religion is identical with the value of complete understanding of truth (Spinoza); others, that it is essentially the same as good character (Kant's theory of religion as "the recognition of all our duties as divine commands"); others that it is the appreciation of beauty (Oscar Wilde). Each of these views reduces religion to some one of the other values. Still others regard it as an interest in the conservation of all the other values, adding no special value of its own (Höffding). All of these views are at least partially true, in that they express the intimate relations of the higher values to each other. But the question still remains, Is there a distinctively religious point of view?

If there be a uniquely religious or sacred element in life, it is not easy to define. Some [1] would seek to find the unique value of religion in social facts,—either in rites and ceremonies or in the socializing function. Religion has, it is true, great social significance; but the historical development of the race has made a distinction between religious and nonreligious ceremonies, religious and nonreligious social ties.

[1] Positivists, Durkheim, the Chicago school of pragmatism, etc.

To identify religion with the social is to fly in the face of religious experience.

Many would agree with this criticism and would suggest that the real uniqueness of religion lies in its relation to God. Social rites or functions that are consciously directed toward God or motivated by thought of him are, then, religious. But this is hardly more satisfactory than the other. There is much belief in God that is not religious. Philosophy is not religious. Dogma and theology are not religious. Philosophy, dogma, and theology might be accepted by the devils who "believe and tremble"—but are not religious.

It may seem that every possible trait that might be suggested as the differentia of religion would suffer from the same defect as those that have been mentioned, namely, of being so interrelated with the rest of life as not to be able to stand by itself. Our previous study of both truth and value has taught us that no value is wholly self-sufficient. The life of value is a seamless robe. Religion cannot hope to assert a domain utterly cut off from the rest of life. If religion be autonomous, her autonomy is a home rule within the moral empire,[1] and subject to the constitution of the whole.

If one is to find the essence of religion, one must look where religion lives. Religion's true home is not to be found in every rite and custom, belief and form, that has been associated with her name. It must be sought in the original experiences of the soul in which religion is born and grows to maturity. Common to all such experiences is an attitude which, in the definition previously given, was described as "a feeling of dependence" on God. This phrase of Schleier-

[1] For the phrase "moral empire," see K. Sugiomori, *The Principles of the Moral Empire.*

macher's does not describe merely the feeling that a superhuman being, more powerful than man, is the source of his existence and master of his destiny. It has a unique quality. It is a sense of awe in the presence of the sacred, reverence for the holiness of God. In the *tabu* of the savage there is the birth of what later flowers in mystical religion. When Durkheim calls sacred things "things set apart and forbidden,"[1] he is not alone describing the practice of primitive man, but he is pointing out a factor that persists in all true religion. Religion is always, when it is "true," a reverent recognition of something in the universe that inspires awe, which man should not approach in the self-assertive and utilitarian spirit of every-day life, but in the presence of which he should kneel and adore. It is true that he should not kneel and adore without regard to the moral, intellectual, or esthetic character of the object of his worship; but his adoration includes more than moral, intellectual, or esthetic appreciation.

The view of religion that is thus presented presupposes that goodness, beauty, and truth are being sought and cultivated to the utmost; but holds that, no matter how fully they may be developed, true religion is absent from life unless there be in the soul a feeling of reverent awe in the presence of the God on whom all life depends. Rudolph Otto has recently coined the expression "numinosum, mysterium tremendum et fascinosum" to express this, the heart of religion.[2] It is in the so-called mystical experiences, in prayer and communion with God, worship and sacrament, that this feeling comes to fullest expression.

[1] Durkheim, *The Elementary Forms of Religious Life,* p. 47.

[2] In his book *Das Heilige,* recently translated into English. The Latin means, "The numinous, an awe-inspiring mystery, yet fascinating." The word *numinous* is derived from *numen* (spirit or divinity) and so means "divine" or "possessed of divine qualities."

(3) The Problem of a Personal God. Historically, religion has been a matter of the relation of the soul and God. The interest of religion has centered in persons, human and divine. The problem of personality is, therefore, one of the key problems of religion. The nature of personality has been discussed in Chapter VI. The treatment of mechanism and teleology has pointed to the being of a Supreme Person that religion calls God as the only hypothesis that will inclusively interpret the facts of experience. God is, however, uniquely significant for religion. The problem of a personal God should be studied explicitly from the point of view of religion.

Belief in a personal God obtains in Judaism and Christianity, in Mohammedanism and in the philosophical theism of Plato and Aristotle; and it is accepted by many of the great religious thinkers of the Orient. Ethical monotheism is the climax of the history of religion on many converging lines.

God is thought of as a Supreme Person who embodies the highest goodness; that is, he is the source both of existence and of value. As the Church fathers put it, God the Creator is also the God the Redeemer. A supreme person, even though he were creator, would not be God unless he were worthy of worship; that is, unless he were ideally perfect as well as ideally powerful.

Such a being is the object of religious faith. Philosophy must inquire, Is God real? The permanent place of religion in life depends on the answer to this question. Religion is, indeed, sustained by instinct, tradition, and custom. Yet if calm thought had to render the verdict that there is no God, the fate of religion among intelligent persons, and finally in society as a whole, would be sealed. Religion depends on faith in God; and the kind of religion one has depends on the kind of God one believes in. No investigation

should be omitted that would shed light on the grounds of belief in God.

Can the philosophical thinker believe in God? Rather, can he reasonably avoid belief in God? The attentive student of this book will recall that the foregoing chapters have shown that attempts to explain personality in materialistic or mechanistic or other "realistic" (*i. e.*, extra-mental) terms have failed because they leave out facts, and cannot be thought out coherently with our total experience. He will also recall that it has been shown that matter, mechanism, and "reality" can be coherently and completely thought only as expressions of the will-energy of a Supreme Person. It has been shown that a reasonable and critical organization of our sense-perceptions gives us access to an objective physical realm; that likewise a rational and critical organization of our value-perceptions reveals to us a realm of ends, where values are objective and where the meaning of the universe resides. Both realms, the argument has shown, are thought in fragmentary and inconsistent manner until we view them as expressions of the purpose of the Supreme Person.

The foregoing results of philosophical reflection are confirmed by the facts of religious experience. The life in which mystical devotion to God, prayer, and worship, have their normal place seems to reach unseen sources of power and harmony. Belief in God, in a word, seems to be the one unifying principle that can make of our chaotic human life a harmonious whole of thought and feeling and action.

Such, in brief outline, is the sort of consideration that leads to rational faith in God. It is, however, well-known that many minds are unconvinced by these or any other reasons that have been adduced in favor of theistic belief. A survey of the more important reasons for objection to

belief in a personal God should aid in clarifying our thought.

It is sometimes said that human ignorance and limitations are such that it is futile for man to seek to solve the riddle of the universe. Human limitations should indeed inspire caution and modesty in every thinker; but if mere appeal to human limitation, without any further reason, is to veto belief in God, this same appeal might logically be made against all thinking. We are ignorant and finite; what right have we (the conscientious objector might ask) to believe that any of the laws of nature are going to hold for another moment, or that they held long before we were born? The appeal to human limitations, if taken seriously, would paralyze all thought and all progress. No such veto will discourage man from exploring his universe or from striving to interpret it as a whole.

A much more radical and important objection to regarding the source of all being as a person is what may be called a mechanistic objection. This objection is based on the fact that all personality in the world of our experience depends on a physiological mechanism, and infers that there can be no personal God because there is no cosmic nervous system. The theist, however, believes that this objection leaves the decisive facts out of account. It is true that there is an empirical dependence of mind on the nervous system, of personality on mechanism. But a wider view of the facts shows us that in the last analysis mechanism itself depends on personality. Obviously our knowledge of mechanistic theory is an achievement of personality and is valid only if the thought life of persons is valid. Further, the study of mechanism and teleology gave grounds for the conclusion that the very existence of any mechanism in the universe is intelligible only as the expression of the purpose of a cosmic

person. Hence, the dependence of persons on mechanisms means only the dependence of human persons on the rational, law-abiding purposes of the Divine Person. Science seems to make God impersonal because its methods are analytic, and it does not raise the question about the meaning of the whole to which its elements and mechanisms belong; but when persistent thought raises that question, God is seen to be the answer.

It must, however, be confessed that it is easier for thought to recognize that personality is the key to the existence of the universe than it is to see that the Supreme Person is good, that is, in the true sense, a God worthy of love and worship. There seems to be more evident order and reason in the realm of fact than in the realm of value. The evils of life, dysteleological facts,[1] are the most serious obstacle to faith in God; both theoretically and practically, they challenge the belief that the universe has a coherent ideal purpose. The more sensitive a mind is to the nature of the ideal, the more keenly does it feel the disparity between the ideal and the real; and thus it happens that many delicate and noble spirits have despaired. There is no God, they have said; God is too perfect to be the author of this world, this world is too vile to be imputed to him. "God," said Schopenhauer once, "must have been tormented by a devil to create a world like this." We may wish there were a God, say these despairing idealists, but we shall never yield our intelligence to our desires!

That there is incompatibility between faith in God and appearances in our world is self-evident. Religion and philosophy both arise out of this incompatibility. Appearances are not reasonable; they are self-contradictory, mere chaos. It is because sense-appearances are so irrational that science

[1] Discussed briefly in Chapter IX.

investigates them, seeks for law, meaning, rationality in what at first glance is lawless confusion. Likewise, both philosophy and religion face the conflicts and tragedies in the realm of value and search for the meaning beyond,—the possible reason beyond the unreasonable, the redemption beyond sin. No serious religion or philosophy has any disposition to sweep the ills of life carelessly to one side; to face them and somehow to overcome them is their goal.

In considering the problem of evil at the outset it should be frankly recognized that a certain amount of faith enters into all human thinking about reality. Faith that the universe is rational, faith that our senses bring us into touch with reality beyond ourselves, faith that knowledge is possible is the postulate on which all thinking rests. In facing the evils of human experience any possible attitude that the mind can take is an attitude of faith. If we believe that God is good and that the evil can somehow be explained in a universe in which God is supreme, we have to exercise faith in order to explain away the facts of evil. But if we believe that the universe is either evil or indifferent to all considerations of value, it is necessary to exercise faith in order to explain away the existence of so much goodness in such a universe. The problem of evil, as has been said, is matched by the problem of good. Without faith no progress in thought or life is possible. In science faith in the reasonableness of the world triumphs over unexplained facts; religion asserts the same prerogative. A calm survey of the arguments for the objectivity of value and for teleology will show that this faith of religion is not a mere blind assertion of desire, but a reasonable faith, both because it is self-consistent and because it includes and interprets a wider range of facts than any other view.

Other objections to personalistic theism are less funda-

mental. It is sometimes said that the idea of God is a clearly human product; its origin and growth may be traced; and hence Feuerbach thought that it was truer to say that man created God than to say that God created man. The superficiality of this objection is, however, apparent. It is true enough that the idea of God has a varied history and is a human construct; but the same thing may obviously be said of all human ideas, and not to their discredit, either. Every principle of mathematics and physics, nay, our very perception of an external world has, if we trace back the evolution of thought, a history as variegated as that of the idea of God. To say that "man created God" is only to say that the mind is active in all knowing; it is not to disprove the truth of every idea that the mind makes. Further, the existence of erroneous and uncritical ideas of God, at any stage of history, no more disproves the truth of God's existence than the existence of erroneous ideas about evolution disproves the truth of evolution.

One other objection may be cited. There are numerous thinkers to-day who attack belief in God on the ground that if there be a God, the universe must already be perfect and so there is no ground for effort or striving to better conditions. Hence belief in God defeats its own function; it aims to make life worth living, yet takes from man every incentive to improve his world. It may be that this argument is valid against certain forms of pantheism or absolute idealism. That it is not cogent against personalistic theism is shown by the following facts. Personalism makes purpose the fundamental category of personality, human or divine. The purpose of God as revealed in experience is not that the universe shall be eternally and simultaneously perfect, but rather that the persons shall have an opportunity to grow. Not static completeness, but development; not a

block-universe, but a universe of suffering and growing love —this is the picture that theism presents. The possibility of achievement is as contingent on effort in a personalistic world as it is in a world of neutral entities, the possibility of failure is as real; on the other hand, the incentive for achievement is greater, the tragedy of failure more poignant.

§ 5. GOD AND PHYSICAL NATURE

When we speak of God, we mean a being supremely good. The idea of God is primarily a value-idea. Nature seems to be indifferent to value, careless of individual and of type, an impersonal machine. Hence, there are many who despair of finding God in nature. They concede that in the ideals and aspirations of humanity there is something worthy of devotion, worthy, perhaps, of being called God; but they can see no relation between the ideal values and the physical order of nature. Let us, then, they say, develop our highest possibilities; let us strive to reform the social order; but let us drop all questions of ontology and cosmology from our consideration. No metaphysics can interpret the results of physics. So speaks an influential positivistic movement in current thought.

Such a standpoint avoids a good many annoying problems, but to avoid is not to solve. The positivist may not be interested in the view of the whole that metaphysics seeks; none the less, all our experience belongs to the whole, and thought abdicates its function if it refuses to seek a synoptic view. The values of life are realities; and the physical world is reality. These two orders of reality influence each other, and both express to us something of the nature of the world in which we live. Man has no intellectual right to any idea that he is unwilling to relate to the rest of his thinking.

If we have any idea of God, our logical conscience commands us to inquire into the relation between that idea and our idea of nature.

Chapter IV, on Physical Things, led to the suggestion that the energy that is at work in the system of physical nature may best be understood as the will of a Supreme Person. Religiously stated, this is the theory of the immanence of God in nature.

The belief in the divine immanence has sweeping implications. If it be true, every motion of every "particle of matter" is nothing more nor less than God himself willing that he and finite persons shall have experiences of a certain type. Every event in nature is God's own conscious deed. Religious thought readily enough recognizes the divine presence in rainbow and cherry blossom, in the crystal and the song of birds. But nature is not all beauty and sunshine; in nature there is harshness and horror, agony and death. There are earthquakes; and even the prophet could not find the Lord in the earthquake. Yet, if there be truth in the personalistic view of nature, it must be interpreted completely and consistently. Storm and calm, disease and health, are alike the literal will of God.

Such statements as those just made seem at first sight revolting; and not revolting merely, but logically inconsistent with the conception of God as Supreme Value. Yet the presence of God in every natural event has been believed by many of the greatest religious and philosophical personalities. It does not seem probable that they have blindly accepted a flat contradiction; and thoughtful reflection will show that the contradiction is only apparent.

God is good; and God is the metaphysical cause of every event in nature. We ordinarily judge many of those events to be "bad"; and bad they certainly are for many of our

hopes and plans and pleasures. Is God therefore "bad," too? In thinking through this question, the fundamental point to note is this: that physical events are not good or bad in themselves; they are good or bad only as they express and influence personality. When we call a thing a physical event, we are thinking of it in abstraction from its rise in the mind of God and its influence on human personality. An event thus thought of has no value or disvalue. A kiss as physical event has no meaning or value; as personal experience it conveys the most intense and various meanings to Romeo and to Juliet, to Judas and to Christ. The same physical event may easily have contradictory meanings to different minds. To God, the source of all being, every physical event means law and love; to man, many such events may mean lawlessness and hate. This may be called the theory of multiple meanings. According to this theory every physical event as caused by God conveys a meaning of value; but the same event may also convey any number of conflicting human meanings. This implies that man may express his purposes through events of which not he, but God, is the metaphysical cause.

The theory of multiple meanings may be illustrated by a murder. An evil man slays an innocent person. The evil man means by this murder hatred, revenge, or robbery or whatever else it may be. His evil meaning is real; he is responsible for it and its consequences, for he knew what they would be, and he intended them. Yet, by this same physical event, God (so our theory would hold) meant his purpose of law and patience and love. Let us not blink the fact that if God be immanent in all nature, every motion of the murderer's hand, and of his weapon, and all its deadly effect, down to the subtlest tremor of the most minute electron, was all the deed of God's will, whose purpose is supreme

value. By one and the same event, man means evil, God means good; just as by a handshake between two human beings, one man may mean friendship and the other treachery. The doctrine of multiple meanings receives its most complex and overwhelming illustration in war, the physical events of which express the wiles of the diplomat, the patriotism of the soldier, the greed of the capitalist, the futile idealization of the poet, the fear or hope or helplessness of the common man,—and the long-suffering purpose of the infinitely good God. In this point of view we have a metaphysical account of the religious faith that all things work together for good to them that love God.

§ 6. GOD AND FINITE PERSONS

In the account of physical nature presented in the previous section, difficult as it is, there would be substantial agreement between monistic and pantheistic idealists and the more pluralistic personal idealists. But when it comes to the consideration of the status of finite persons, there are differences even within the idealistic camp.

Whatever metaphysics one may accept, it is evident that human personality is intertwined with and is dependent on the rest of the universe. Mind depends on body, on heredity, on environment; human personality is fragmentary, intermittent, chaotic, incoherent, as it stands. From these facts the monist infers that human persons are part of the whole on which they depend,—part, that is, of God. Yet this conclusion, plausible as it sounds, is very difficult to accept. God, the monist would argue, knows all, is supreme value; but man is really ignorant, limited, evil. Now, human limitation, ignorance and sin as man experiences them, finitely, ignorantly and sinfully, cannot be part of a coherent God.

In God there must be complete understanding of what human life means, complete triumph over the defects of humanity. This means that "the point of view of the Absolute" is complete and perfect. The point of view of man is incomplete and imperfect. Man's point of view, as it is for man, is forever other than man's point of view as it is for the Absolute.

The monistic theory seeks to state the relation of God and man in terms of the category of whole and part. This category, however, breaks down when it attempts to describe personal relations. The more illuminating category is that of purpose, which, on our view, determines what wholes and parts there shall be in the universe. The monist rightly holds that the divine purpose is supreme; but we can give a self-consistent interpretation of the facts only on the view that it is the divine purpose that there shall be separate finite persons, on whom God acts intimately and constantly without their being a part of him. In himself man finds signs of God and of God's nearness and activity. Yet man is always himself, and God is God. They are mutually transcendent in a sense in which God and nature are not. Most of the states of my mind are, it is true, caused not by my self-determining will, but by God. This is true of my sensations and of all in me that is due to physiological and psychological mechanisms. Nevertheless, all conscious processes in me, whether caused by God's purpose or my own, are parts of my complex, unitary personality, which, though dependent on God for its being, is self-experiencing and, within limits, self-determining.

§ 7. IMMORTALITY

Religion usually, although not always, includes belief in personal immortality. This is the faith that after the end of life in this physical order conscious personality continues in some other environment. Such faith is a natural expression of religion. If religion is or presupposes belief in the conservation of values, and if value depends on personality, it seems to follow necessarily that religion depends on belief in the conservation of persons. If the human race could be persuaded that all consciousness of every kind were to be permanently annihilated within five years from the present, religion would soon lose its hold. A world in which all consciousness was to perish would be a world in which the religious attitude would be thoroughly irrational. In such a world, value is certain not to be conserved. Ehrenfels, one of the great founders of modern theory of value, expressed this thought in his doctrine of a metaphysical minimum. Inner peace, he tells us, does not depend on belief in personal immortality, but does require, as a minimum, "the belief in the eternity of the psychic in general." [1] That is, Ehrenfels holds that it is morally necessary to believe that conscious life will never entirely cease to be.

It is very questionable whether a faith like that of Ehrenfels can be rationally maintained on a naturalistic basis. If consciousness is always to be a fact in the universe, must there not be realms and laws of being that lie beyond our physical world? Must there not be "another life"? The belief that human personality survives bodily death and will never be destroyed is both ancient and tenacious. So important a belief should be examined impartially; neither desire nor aversion, faith nor prejudice, should determine the con-

[1] *System der Werttheorie,* Vol. II, pp. 172 ff.

clusion, but only a fair weighing of the evidence. We shall consider first the objections to the belief and then the arguments in favor of it.

(1) Objections to Belief in Immortality. (a) *Its Origin.* The belief in immortality doubtless had a humble origin. Dreams, abnormal psychic experiences, fear of annihilation, desire for life, tribal consciousness and other factors, none of which, to speak mildly, carries with it any guarantee of its own truth, are the soil in which belief in immortality germinated. Hence, argue some, the belief must be untrue.

This argument may stir the feelings to a revolt against immortality, but to the impartial critic it has no logical force whatever. Put into logical form, the argument runs as follows: all beliefs that have a humble origin are false; this belief had a humble origin; therefore this belief is false. The argument has no force against immortality unless the major premise be true that all beliefs of humble origin are false. A little reflection will show that ultimately all beliefs, no matter how scientific or true, may be traced back to a humble origin. A genetic or evolutionary study will show that all science, all knowledge, even all sense perception, is a development out of lower forms of thought and experience. No reasonable mind would reject the physics of Einstein because one can trace the history of physics back to the fantastic theories of Plato in the *Timæus.* The origin of an idea has nothing to do with its meaning or value or truth. If all beliefs of humble origin are false, then all beliefs are false, and all argument is useless. The attempt to disprove immortality by an appeal to its origin is a complete failure.

(b) *Personality Dependent on Physiological Organism.* If the life of the body is cause and the personality is effect, when the cause ceases, the effect ceases. If consciousness can exist only where the brain is functioning in a certain

way, when the functioning of the brain is at an end, consciousness is also at an end. This argument is impressive; and if the "if"-clauses are the truth, the whole truth, and nothing but the truth, it is conclusive. It is necessary, then, to look into them carefully.

Is the life of the body cause and the personality effect? Can consciousness exist only where there is brain functioning in a certain way? Let us consider these questions separately.

The belief that the life of the body is cause and the personality effect is clear-cut materialism. The case for and against materialism has been studied earlier in this book and need not be reviewed. Special mention should be made of the fact that reason was found for regarding interaction as the best expression of the relation of mind and body. Hence, personality is not wholly caused by body, but in part the behavior of the body is caused by personality. More fundamental is the position of the personalistic philosophy which holds that the interaction between mind and body is merely phenomenal, and that the very being of mind and body alike is dependent on the Supreme Person. If this position be true, the body is not the real (or metaphysical) cause of personality, but rather personality depends both for its relation to the body and also for its hope of future life on the purpose of the Supreme Person. The facts of physiology are true, but they are not final. They do not close the door to another life.

The other "if" supposed that consciousness can exist only where there is brain functioning in a certain way. This has already been partly refuted by the point made in the previous paragraph. Nevertheless the fact remains that the relation between functions of mind and functions of brain is very close, although much yet remains to be discovered about

those relations. In his Ingersoll Lecture on Immortality, James made a point of some importance that bears on this difficulty. He argued that functions are of two kinds, productive and transmissive, and that brain may be transmissive and not productive of consciousness; just as the heart transmits, but does not produce, blood. The figure implied in the word "transmissive" is somewhat defective, for brain does not literally transmit consciousness to the body and environment, but only symbolizes or expresses it. We might then substitute for James's "transmissive" the word "expressive." The brain may, then, be an instrument for expressing personality, just as the piano is an instrument for expressing the music that exists in the soul of the pianist. If the instrument in either case be injured, the expression is injured; if the instrument be destroyed, the expression through that instrument is destroyed; but just as the player may survive the destruction of his piano, so the personality may survive destruction of the brain.

(c) *Contrary to Experience.* We have never experienced a personality apart from a brain, say some, and we have no right to assume that a mind without a brain is possible. It is, of course, true that we have never experienced a mind without a brain, but this is far from disproving immortality. If thought were confined to that which we have actually experienced, no science would be possible; indeed no knowledge of other minds or of a world would be possible, for we have never experienced another mind nor the whole world. We are logically justified and even compelled to go beyond experience in our thought, and to regard as true every hypothesis that proves successful in building up our interpretation of experience into a coherent whole. Belief in immortality claims to be just such an hypothesis.

(d) *Desire for Immortality Selfish?* It has been some-

times said that belief in immortality was based on selfishness. Buddhism teaches that the very desire to be a self is selfish in a bad sense. But it is undiscriminating to condemn faith in life after death as necessarily selfish. Life here or hereafter may be lived nobly or ignobly; may be desired for ideal or for petty ends; may be either selfish or unselfish. He who is an egoist to-day will hope for an immortality of self-indulgence. He who lives altruistically to-day will hope for a future in which the leaves of the trees are for the healing of the nations. As Bowne has pointed out, it is no more selfish to want to live forever than it is to want to live to-morrow. No human being has ever desired a solitary or utterly selfish immortality. Men have always hoped for a perfect society beyond the grave.

(e) *"Crime of Easy Belief."* It has also been argued that it is morally reprehensible to be gullible. "Easy belief" is a crime. To this general principle no thoughtful mind will take exception; but exception may well be taken to its cogency as a refutation of belief in immortality. To believe in immortality without thought, or to believe in it if there is no good reason for doing so is intellectual dishonesty. But it is surely no crime to believe in anything if one has been convinced by the evidence. Further, it may not be irrelevant to remark that many who are greatly exercised by the crime of easy belief in immortality seem to find easy belief in materialism and denial of immortality no crime. The solution of the riddle of human life is very difficult; it is not made simpler or more reasonable by calling those who reject our solution criminals.

(f) *Scientists Disbelieve.* It is often said that immortality is probably not true because the majority of the men of science do not accept it.[1] There is some question about

[1] See Leuba, *Belief in God and Immortality.*

whether any investigation yet made has actually revealed the beliefs of the majority of scientists; but, be that as it may, there is a more fundamental question. It is this: Supposing that the majority of scientists were opposed to any belief, what force would their opposition have in proving the error of that belief? If the belief were one that fell within the field of their expert knowledge, their opposition would have force. But if the belief were in a field in which they were not experts, their opinion would be worth no more than the opinion of an artist about Einstein's theory of relativity. A manifesto of intellectuals against immortality, if they have not thoroughly investigated the subject, is much like a manifesto of intellectuals about the facts of a great war, drawn up and signed in the heat of patriotic fervor without any attempt seriously to investigate the facts. The only scientists whose opinion would weigh heavily are those that are experts in the study of immortality; and it is safe to say that a majority of such are believers in the future life.

(g) *Adequate Substitutes?* Finally, some hold that faith in life after death should be abandoned on the ground that it is superfluous. Simpler and more reasonable substitutes, it is said, may be found to perform the function of belief in immortality. That function is to symbolize the fact that man is living for permanent causes; that the meaning of this life does not end when he dies. But in order to express this fact it is not necessary to believe that we human units live on forever. If we pass on to other generations a better world, we may find in the immortality of influence, or "social immortality," as it is called, an adequate substitute for personal immortality. Or if we are living for eternal truth, for principles that will forever be noble and ideal, we may perish, but they shall endure; and in their eternity we may find compensation for the death of our small personalities.

Noble spirits have found spiritual significance in these substitutes. But if we think these substitutes through, we see their inadequacy. The immortality of influence is only a phrase; for, as surely as human life on this earth had a beginning, it will have an end. The time will inevitably come when the environmental conditions that make life on this planet possible will disappear. Then the last human being will die, leaving no trace of all the strivings of humanity and no single item of value in the whole world; for value depends on personality. The substitutes for immortality are, therefore, no true equivalent; we face the dilemma, either personal immortality or the ultimate annihilation of all value that humanity can achieve.

(2) Special Considerations in Favor of Immortality. (a) *Objectivity of Value.* Man's moral experience and the whole realm of value point toward immortality. Our moral nature commands perfect obedience to duty, perfect development of all values. If value be objectively real, as our study in a previous chapter led us to believe, then the voice of duty is the voice of reality itself. Further, if personality itself be the value on which all others depend, the objectivity of value cannot be fully expressed by its realization in the divine mind. No human personality must be annihilated if the full actual and potential value of the universe is to be conserved. The validity of this argument manifestly depends on the validity of the argument for the objectivity of value.

(b) *The Goal of Evolution.* A synoptic view of the whole evolutionary process points to immortality as the "goal of evolution." [1] When consciousness first emerges, it is merely the servant of the physiological and animal nature of man.

[1] See Mathews in *The Yale Review,* Jan., 1921; Le Conte, *Evolution and Religious Thought.*

As evolution progresses, there is an increase of conscious traits that are biologically superfluous and point to the development of individual and social consciousness as an end in itself. In man at his best this tendency reaches its climax. The animal nature is regarded almost wholly as a means to the end of developing the higher values of life. Adaptation to physical environment, which once was the goal of life, is now made instrumental to the expression of beauty and goodness, religion and truth. The whole movement of the life force is from natural to the spiritual; from the primacy of matter and body to the primacy of mind. It seems as though nature were striving to speak to us in a divine language that says, Spirit really is master of body; and the goal of evolution is the eternal development of spirit. This argument rests on the assumption that nature will keep her promises. No assumption about the unseen future is capable of decisive proof; but this one is of a piece with the necessary scientific assumption of the rationality of the universe.

(c) *Solves Problem of Evil.* Belief in immortality is the only rationally satisfactory solution of the haunting problem of evil. It is, however, important to be clear about the sense in which a future life may be thought of as solving the ills of the present. It would not be enlightening to hold that, while this life is painful, the next will be all pleasure; or that while this life is "unjust," the next will be just; that while this life is probation, the next will be pure enjoyment. Such solutions are both too easy and too difficult; for they seem to hold that God has one law for this life and another for the life to come, and they thus create more problems than they solve. Nevertheless, it is only the faith in immortality that can find a rational meaning for evil. Evil, considered by itself, has no meaning; it is a brutal frustration of value or a power that vitiates the very sense of value.

Yet evil, like everything else in human life, may have a meaning and a value beyond itself in what it leads to, in the end which it serves, the whole to which it belongs. If all humanity is to fall into the grave and rise no more, neither evil nor good has any final meaning. But if the human race is composed of deathless persons, there is the eternal possibility that evil may be overcome, that it may serve its disciplinary and refining end, and that through it a meaning may be achieved. Anything may be endured in a universe where there is hope.

(d) *Psychic Phenomena.* Many attempts have been made to gain experimental verification of immortality through what are called psychic phenomena. The literature is very extensive, and new experiments and theories are constantly being reported. It may be doubted whether the net result of "spiritism" for faith in an after life is very great. After deductions are made for fraud, for the work of the subconscious, for unconscious physiological influences, and (perhaps) for telepathy among the living, there is scant ground for the belief that there has been actual communication with departed spirits. The content of the supposed messages does not savor of a world higher or better than our own.

There is, however, one result of all this experimentation that may be regarded as confirming the faith in immortality. Psychic phenomena continually reveal the fact that the human personality has unsuspected powers and extraordinary control over matter. The facts of psychotherapy and hypnosis [1] and the experiences of mysticism all agree with the spiritualistic phenomena in pointing to these hidden powers of personality. If personality be so much more than

[1] See the remarkable account by "M. M. G." entitled "What Death is Like," in the *Atlantic Monthly*, April, 1924.

it attains in this life, hope for a future opportunity for development is reasonable.

(e) *Resurrection of Jesus.* Among Christians, the resurrection of Jesus is perhaps the chief basis of living faith in immortality. The resurrection stories have been hotly debated by scholars. Critical examination of the New Testament narratives shows that there are two strands of tradition; one representing the body of the risen Christ as "spiritual" and one as physical. It is easier to account for the rise of a physical misinterpretation of a spiritual fact than for a spiritual misinterpretation of a physical fact. Man is naturally materialistic. Whatever the facts about the resurrection may be, it is evident from the records and from the course of history that the early Christians were absolutely convinced that Jesus rose from the dead. The modern man, however, does not have access to the same facts and experiences as the Christians of the first generation, and his attitude toward a risen Jesus will be determined more by his philosophical standpoint than by the details of the New Testament narrative.

(f) *Character of God.* The final, and, in the writer's opinion, most fundamental argument for immortality is the character of God.[1] If God be good, then somehow human persons must be immortal. To promise so much, only to destroy us; to raise such hopes, and then to frustrate them; to endow us with such capacities that are never to be fully used; to instill in us a love for others, all of whom are to be annihilated, is unworthy of God. Faith in immortality thus rests on faith in God. If there be a God, man's immortality is certain; if not, immortality would not be worth having.

[1] See Dean C. R. Brown's Ingersoll Lecture.

§ 8. THE FUTURE OF RELIGION

Religion (if our view of it be sound) is the highest and most satisfying expression of life. It unifies, strengthens, and supplements all the other values of life; it places our life in a setting that changes, indeed, none of the facts of life, but gives them a new meaning. It gives human life an eternal goal and value. It elevates every human individual to the possibility of eternal companionship with God. It greatly dignifies man while at the same time adding heavily to the responsibilities and tasks of humanity. It lifts man from the filth of life and offers him a crown of gold.

Such is the ideal function of religion. To many souls it is furnishing all that the ideal portrays. Yet religion is functioning but feebly in the real world in comparison with what might be, and ought to be. The church, the home and shrine of religion, has been institutionalized, conventionalized, standardized, to such an extent that the life forces of religion are at low ebb. Some ascetics of the intellect are turning from religion because they do not believe that they have the intellectual right to believe. These are a small group. The real source of the wide-reaching religious impotence of to-day is the claim made on man's very soul by the complexity of our material civilization, its business and its pleasures. Man has no time or strength for God. The world has crowded God out of life.

In the light of this situation what is the prospect for religion? Is religion in mortal combat with our materialistic society? Will religion be vanquished by being ignored? If at times the outlook appears gloomy, there is nevertheless profound reason for hope. Religion is rooted in the very nature of man, his instincts, his mind, his needs. The hectic abuses of present-day life are on the surface. Either our

material civilization will collapse of its own weight, through war or other internal dissensions, or it will be spiritually renewed from within. In either case the essential office of religion will continue. Indeed, as knowledge and progress advance, the need for a unifying spiritual force, to keep our inner life from collapse and society from disintegration, becomes more and more acute. Human ideals are part of the universe and will thrive only when fed from their source in divine reality. It is unthinkable that the purpose of the universe should fail. Religion will survive.

CHAPTER XI

WHAT IS THE PRACTICAL VALUE OF PHILOSOPHY?

§ I. RETROSPECT AND PROSPECT

A bird's-eye view of the fundamental philosophical problems, such as has been incompletely undertaken in this book, may or may not lead the reader to agree with its conclusions. It should certainly lead him to perceive that on every problem of importance there are different views, and that something may be said on both sides of every great question.

In the first chapter it was said that the study of philosophy was useful for life. Now that we have surveyed the field, we are ready to consider from a more enlightened standpoint the question of the practical value of the subject. We see more clearly now than we did then the meaning of philosophy and also the range of difference in opinion among philosophers. No system of philosophy, neither personalism nor any other, is so well proved as to win the adherence of all thinking men. Philosophy is still a quest. The pursuit of truth is not ended. If, after all our study, we are still looking for more truth or new light on old truth, some minds become discouraged. What, they ask, is the practical value of a philosophy that has not brought us to the goal? If the doctors of philosophy disagree, what is to become of the student?

§ 2. WHAT IS MEANT BY "PRACTICAL VALUE"?

The question about the practical value of philosophy or of anything else is made harder by man's reluctance to define what he means by the word *practical.*

There are many who, loath though they may be to admit it, mean by practical that which yields financial returns. Such a definition seems to have been in the mind of the prosperous butcher who remarked to a gentleman of culture, "You may dress better than I do, but see what I have in the bank at the end of the year!" Such also seems to be the thought of those who condemn philosophy as a luxury. Leisure and tools for philosophizing cost considerable money; yet philosophy at best is the potential source of but a meager income, and that only to a small proportion of its students. Chemistry, physics, biology, psychology,—these are more comprehensible to the butcher than is philosophy. He sees that the public is willing to pay money for the results of these sciences, while only an occasional far-seeing idealist is willing to pay for philosophy. To the butcher, moreover, far-sightedness of that sort is an optical defect.

The clan of the butcher appears to be large; yet it is not so large as it seems to be. The number of butchers, that is, of average human beings, who seem to live wholly for money, is too large; but very few people will, in their thoughtful moments, admit that they desire possession of wealth for its own sake. They will say that they want money for what it will buy; and it will buy the means of existence and the possibility of attaining life's values.

If, then, practical be defined as meaning what leads to possession of money, philosophy stands condemned. Its currency is that of the republic of mind, not of any political government; its price is above rubies. Philosophy will buy

no bread for the starving, will build no house for the shelterless. It feeds and shelters only the mind.

Nevertheless the philosopher believes that his contribution is more truly practical than anything that money can buy. When he says this, he means to imply that whatever leads to true value is practical. Philosophy does not furnish the things that make human existence possible; but it casts a new light on the things that make human existence valuable. In the last analysis, nothing is practical if human existence is worthless. The meaning of the word practical is a hopeless riddle until man decides what he is living for, and what is worth living for. To be truly practical in any situation or in life as a whole means to survey the possibilities, to choose the best, and to do what contributes most effectively to the best. If I wish to raise chickens and I am practical, I shall not rush to the nearest grocer and purchase the first dozen of eggs that is offered me. Rather, I shall consider different breeds of hens, methods of incubation, the expense involved in different methods, the experience of others, my own experience; and finally in the light of knowledge I shall make my decision. The practical chicken-raiser must be, so to speak, a philosopher of the chicken cosmos. His knowledge must be inclusive, analytic, experimental, synoptic,—perhaps even romantic. The fully practical human being will give equally full attention to the nature and conditions of human life; and he cannot stop short of a philosophy of the human cosmos that includes all that men experience or that can affect them in any way.

Thus we see that the famous ancient distinction between theoretical and practical is less final than it has been thought to be. To be truly practical one must take into account all that any theory could reasonably conceive; to be truly

theoretical, one must include every practical fact. There is only a difference of emphasis. To be theoretical is to know the best means of attaining all possible ends, including the best ones; to be practical is to use the best means of attaining the best ends. Each is essential to the other. Practical values destroy themselves when separated from all theory. "Hear Reason," says Poor Richard, "or she'll make you feel her."

§ 3. THE PRACTICAL PERIL OF DOGMATISM

If we eschew all philosophy, that is, all attempts to ask what our life as a whole reasonably may be taken to mean, we cannot avoid saying something about our life, after all. The something that we then say will be an unreasoned dogmatic assertion. Even though we seek to philosophize, our attitude may turn out to be dogmatic. In either case we confront a practical peril.

To be practical, we have found, implies some knowledge of the ends and values of life. In the background of every practical act hovers the brooding spirit of a philosophy that gave it birth and that judges its meaning and value. There is no doubt about the influence of philosophy on life; but there is danger that this influence may be pernicious. The more philosophy influences life, the more danger there is that life will unduly influence philosophy. If we live by a philosophy, our affections and will are committed to allegiance to that particular system. A change in fundamental thinking will mean an uprooting of habitual ways of feeling and acting. Man's "practical" nature resists encroachments from his intelligence, and he expresses his aversion to change by the attitude of dogmatism.

By dogmatism is meant the assertion, whether explicit or implicit, that what one believes is final, incapable of being revised, improved, or overthrown.

The dogmatic temper is ridiculous in the light of history. Truth has often been discovered contrary to previous beliefs and expectations. Much truth is beyond us. It is no mere nonsense when Tertullian says, "Certum est, quia impossibile est . . . credo quia absurdum."[1] We cannot adapt reality to our thought; we must adapt our thought to reality. No human philosophy can be the complete divine truth.

The serious thinker is, it is true, morally bound to be true to the best that he can find. He will say, This I believe and must believe until I have reason for believing differently. But he will guard himself against dogmatism as against the suicide of reason. He will see that his loyalty to attained truth is mere blindness unless it is also open-minded to new truth. He will live by his philosophy; but his philosophy itself will be living. He will, therefore, need to be constantly on guard against compromise with inclination and social pressure; he will accept or reject no doctrine because it is either fashionable or unfashionable.

The dogmatist loves the truth or error that he believes for its own sake; the philosopher loves the truth that he has for the sake of the eternal truth which alone gives value to temporal truths. The philosopher will therefore regard dogmatism as the foe of truth and as the doom that man pronounces on himself when he determines to know nothing new or different from what he has known in the past. If philosophy leads to dogmatism, she has betrayed her own cause; if she leads away from dogmatism, she has performed a high practical service to the human race.

[1] "It is certain since it is impossible; I believe because it is absurd."

§4. THE PRACTICAL PERIL OF SUBJECTIVISM

A philosophy that avoids dogmatism is not therefore out of danger. An excess of tolerance and open-mindedness is as dangerous as a defect in those qualities. The pendulum may swing from dogmatism to subjectivism.

Subjectivism, as the term is here intended, means the belief that all philosophical systems are no more than rationalized expressions of the early training, or the desires, or the psychological type, of the philosopher. If dogmatism asserts that all systems (in the opinion of their makers) are equally true, subjectivism holds that all are equally false. Thus, in the eyes of impartial critics, both come out at the same place. Both hold that philosophy can find no truth that is true for all minds.

The devastating doubt of subjectivism is not without its practical value. It reveals the indissoluble relation between life and philosophy. There would be, if not a truth value, at least an esthetic value in regarding philosophy as a dramatization of personality.

After all, subjectivism, like dogmatism, destroys itself. If the subjectivist can know that the various philosophies are due to subjective causes and can enumerate those causes in psychological and environmental terms, he presupposes that he has some knowledge that is truly objective. Our type, our desires, our training, doubtless influence us profoundly; but if we can become conscious of our limitations, with the subjectivist as our guide, we may in some measure rise above them, learn from others, and perhaps through our peculiar type make a unique contribution to the truth that humanity is slowly mastering.

If subjectivism were true, there could be no science, no history, no knowledge of other persons. It would be a mad

world! Skeptical subjectivism is, like dogmatism, the suicide of thought. If, however, skepticism teaches us to become aware of our limitations in order to rise above them, it is performing for humanity a most practical service.

§ 5. THE IDEAL *VS.* THE REAL

The practical value of philosophy is perhaps most often called in question because it is said to be dealing with mere ideals and theories rather than with actualities. The ideal seems to many to be an imaginary refuge from stern reality. On the other hand those who love philosophy do so chiefly because it reveals ideals and meanings. Without the ideal, the so-called realities of life seem to the thinker to be what the waves of the ocean at midnight are to the lone mariner without light or compass. The real without the ideal is chaos.

Here is a clash between two radically different ways of facing life. Yet after all, it is not a clash between philosophy and no philosophy. It is rather a clash between two types of philosophy. The idealist and the realist are both philosophers. The philosophic spirit has a magic net which it casts over every mind that opposes her, so that, if it even attempts to offer any reasonable objection to her, it becomes at once her victim.

The human world needs its realists, who hard-headedly fix their gaze on what is near at hand; but far more does it need its idealists, who peer down the perspectives of time and space and value and mind, and try to catch a glimpse of what the near facts mean in the light of the distant. The realist furnishes the paint of life; the idealist sketches the picture that is to be painted. Spengler has rather crudely remarked that philosophy of late has descended from the

bird's-eye view to the frog's-eye view.[1] Both views are needed; but when man is deeply concerned about his duty and his destiny, he needs the view of the bird that, soaring, sees the landscape as a whole.

If any one should find a new fact that seemed to be unlike all other facts and to fit no known law or principle, great interest would be aroused by the discovery. The interest would, however, not be due to the existence of a new solitary brute fact, but rather to the eager curiosity to discover the law, the meaning, the ideal, that this fact embodies.

There is danger that the bird may float in the air too long and thus become unfamiliar with the swamps of earth. There is also danger that the frog will see only his swamp and will not believe the song of the bird. After all, the bird has the advantage. She can fly, and she can hop; but the frog can only hop. There is danger that philosophy may fly too high and too far and may lose the way in ideal dreams. Is not this danger less than that of the unthinking man who does not even know that there is a way to lose?

Philosophy summons every man to do consistently and thoroughly what every one does in some degree. She points to the changing world of experience and inquires what we can reasonably depend on to be constant in the change; she asks, Whence and whither flows the stream? The obstinate realist says, Here is the stream, and that is all I know. Yet even he finds an ideal of "tough-minded" loyalty to truth, and, unless a solipsist, goes beyond the stream of his private consciousness by virtue of some ideal of objectivity. It is the most unreal of dreams that we can do without ideals or that we can ever distinguish reality from illusion without some ideal criterion of truth.

In response to a question from the Hatter, Alice once re-

[1] *Der Untergang des Abendlandes* (33d-44th edition, 1923), Vol. I, p. 59.

marked, "Really, now you ask me, I don't think—" "Then you shouldn't talk," replied the Hatter. The Hatter spoke wisely; for without thinking, that is, without appeal to ideals, it is hardly worth while to say anything.

§ 6. THE VALUE OF PHILOSOPHY FOR LIFE

Life, then, needs ideals for its interpretation. The truth of this abstract statement is confirmed by the actual influence of philosophy on life. Ideals and ideas have made history. Ideas are not the only forces in life; man is also a creature of desires and passions, instincts and habits, and his conduct is therefore largely blind and unreasoning. But it would be a libel on humanity to regard all human behavior as due to irrational causes. It is true that relatively few men have either the training or the capacity sufficient to enable them to follow even elementary reasoning in philosophy. It is also true that philosophical thought has far-reaching influence on the lives of multitudes who have scarcely heard the name of philosophy and have no technical knowledge of it at all.

Philosophy has played a large part in liberating the human mind from blind acquiescence in tradition or prejudice and in teaching men to face the whole truth fairly. It was philosophy that undermined the confidence of the Greek in his crude immoral polytheism. Philosophical reflection on the universe gave birth to the idea of evolution centuries before Darwin; and philosophy interpreted the relation between evolution and the eternal values after Darwin had seemed to dissolve everything away. In a growing world philosophy still sees life steadily, while minds untouched by philosophical ideas are groping in confusion. Philosophical thought about the meaning of life gives rise to theories of

the state, which in turn affect the currents of history. Locke's theories of government, transplanted to French soil, were among the roots of the French revolution. The dialectic of Hegel stimulated Karl Marx and the result is modern socialism. Practically every system of education, from the medieval to Herbart's and Dewey's, is based on a philosophy of values. Without a philosophical background and criticism, religious faith easily degenerates into dogmatic traditionalism, at war with science and with itself. Illuminated by the synoptic view of reflective thought, religion is rendered clearer and loftier.

Who can contemplate civilization without acknowledging the influence of philosophical thought on the course of affairs? Who can fail to perceive that there is a great practical need for a more convincing interpretation of the meaning and value of life?

§ 7. THE PRACTICAL VALUE OF PERSONALISM

We cannot get along without philosophy. Perhaps we cannot get along with it. If philosophy means only the strife of systems, it means no more than Babel. If it means only a benevolent attitude toward truth, it is lovely but ineffectual. To be of substantial value, theoretical or practical, philosophy must have something positive to say. The philosophical spirit should not remain impalpable but should make itself felt in real life. The student of philosophy has the responsibility for choosing as his working philosophy the way of looking at things that seems to him most reasonably to interpret reality as a whole.

It seems to the author of this book that the philosophy called personalism is on the whole the most coherent and inclusive account of our world that he knows of. The rela-

tive merits of the various systems have been examined, and repetition is unnecessary. It only remains to point out briefly what practical difference it makes whether one accepts personalism or not.

For all human beings, the general conditions of experience are the same. Whatever our beliefs may be, we all live in the same world, our bodies are subject to the same laws, we have the same fundamental needs and instincts. We are all alike, but we are also different. Our differences are, if anything, more important than our resemblances. Mr. Chesterton once remarked that the one thing that really counted about people was their philosophy of life. It may be added that we cannot think through any philosophy of life without taking into account all of the experiences of man and all of the vexatious questions of logic and psychology, epistemology and metaphysics, that have been taken up in this volume.

Perhaps the most far-reaching question that one is called on to face is this: Is the universe friendly or not friendly to human values and ideals?

There are many philosophers who either assert or imply that the universe is not friendly. Numerous forms of materialism and realism hold that the aspirations and loyalties of life, in short, all values, are merely the outcome of our animal ancestry that can be traced back to the dawn of life and to inorganic matter. Save for the faint stream of life on this planet, such views hold that there is no consciousness, no purpose nor value in the universe. All goodness is the purely mechanical product of a universe that, as a whole, intends nothing and values nothing. Among the products ground out by this machine is human knowledge. Man knows his place. It is as fuel for a little fire in one corner of a cosmos

that was and will be unwarmed and unlit by any other fire. Not the individual alone but the entire race is fuel for this fire. It kindles, flares up, smolders, goes out. Nothing will be left of man but charcoal and ashes. Any one who seriously accepts naturalistic mechanism must face these its ultimate consequences.

When the full implications of impersonalistic philosophy are thus clearly seen, the only result can be cosmic pessimism and despair. If the materialist still lives a wholesome, active, human life, his life has no logical connection with his philosophy. Like Hume, he forgets his speculations; and what is more, he lives as if they were not true. He chooses as though he were a self-determining person; he lives as though there were something to live for. There is a double tragedy in the life of the good materialist: the tragedy of a worthless universe and the tragedy of self-contradiction between theory and life. If materialism were true, this tragedy would have to be faced grimly and borne as well as the human machine might bear it. But if, as we have found reason to believe, materialism is both unsound in theory and tragic in practice, the burden and the abuses of materialism are as unnecessary as they are evil.

The practical advantages of personalism are evident. Personalism interprets the universe as friendly. It justifies hope. It finds in the relation of human and divine wills an inexhaustible meaning and purpose in life. Indeed, it presents so beautiful a prospect that some minds find it too good to be true.

Certain critics go so far as to attack personalism on practical grounds, holding that if supreme goodness be at the heart of the world (as both personalism and absolute idealism hold), there is no longer any incentive to effort and

progress; for if, they ask, this world is the handiwork of a perfect creator, why should we undertake to perfect it? Why paint the lily?

This objection arises from a failure to take personalism seriously enough. Personalism does not believe that now, or at any point in time, the universe is perfect. It finds in God a being of perfect goodness, but not of mechanical perfection. His perfection is perfection of purpose, a teleological perfection. In its practical bearing on human beings this means not that the universe is perfected, but that it is perfectible; not that nothing can be improved, but that real change, real improvement, is the purpose of life. The sufferings of man and the ideal obligation to attain the highest values are stern factors in life, rendered more stern by the personalistic interpretation of suffering and obligation as entailed by the divine purpose. Personalism, therefore, is not too delicate and beautiful to face the facts. It too sees life as a tragedy; there is the shadow of a cross on the face of the personalistic universe. Humanity suffers and dies. Many fail to see the suffering in the light of ideal values. The world is tragic enough still, although all that personalism teaches be true. The secret of the practical significance of personalism is that it faces the tragedy and sees that it is not all. There is tragedy, but there is also meaning; and the meaning includes and transforms the tragedy.

Every reader of this book will decide for himself what he is to think about the problems of philosophy. But he cannot escape from the fact that this decision is not merely a theoretical hypothesis, but also a practical attitude with far-reaching consequences. The synoptic thinker will not be determined in his thinking by those consequences alone, but he will see the necessity of taking them into consideration in a complete interpretation of experience.

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CHAPTER III

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LEXICON

PREFATORY NOTE

The following brief lexicon of technical terms and names of philosophers serves also as a general index.

References are given to the chapter and section (or subsection) of the book where the topic is treated in the following form: VIII, 5, (2) means Chapter VIII, § 5, subsection (2). Derivatives from a fundamental term are not given when the meaning is obvious. *E.g.,* words ending in *-ist* and *-istic* are implied by words in *-ism.* When a word is printed in *italics,* that word is defined elsewhere in the lexicon (except in titles of books).

While the author is responsible for both form and content of the definitions, this lexicon owes much to the following sources, roughly in the order named: Thormeyer, *Philosophisches Wörterbuch;* Eisler, *Handwörterbuch der Philosophie;* Hastings, *Enclopædia of Religion and Ethics:* the lexicon in the eighth edition of Falckenberg, *Geschichte der neueren Philosophie; Encyclopædia Britannica;* Baldwin, *Dictionary of Philosophy and Psychology;* Mathews and Smith, *Dictionary of Religion and Ethics.*

It should be noted that all philosophical terms may be used in special senses by any writer.

A

Absolute. That which is complete in itself, not limited by anything outside itself. VII, 5, (1).

Abstract. Popularly, either what is hard to understand, or (usually) what cannot be perceived by the senses. In philosophical usage, sometimes the latter, but usually (under the influence of *Hegel*) separated from its connection in reality, as a hand apart from a body. V, 1. See *concrete.* VIII, 5, (6).

Acquaintance. *Immediate* knowledge, *intuition* as distinguished from *description* by concepts. III, 6.

Activity. The initiation of change.

Agnosticism. Theory that ignorance about philosophical or religious principles is the rational outcome of thought.

Analytic Method. Defined I, 11.

Anaxagoras. Greek philosopher, about 500-428 B. C., who taught that there was an infinite variety of elements and that "Nous" (reason) was supreme. VII, 6.

Animism. Primitive belief that all living things or natural objects are inhabited by a *soul.* VIII, 3.

Anthropomorphism. Interpretation of reality (especially of God) as like man. Extreme a. attributes a body and other hu-

man limitations to God. VI, 11, (1). VIII, 3, (4).

Antinomy. Two contradictory *propositions* (thesis and antithesis), each of which can be proved to be true if their common presupposition be true. V, 14. VIII, 5, (7).

Aristippus. Of Cyrene, N. Africa; a hedonist (435-355 B. C.) who believes that human happiness consists in securing pleasure and avoiding pain. Present pleasure is preferred to future; and bodily to mental. Self-control is, however, essential.

Aristotle. Greek philosopher (384-322 B. C.). Pupil of *Plato.* One of world's greatest thinkers. Taught development from pure matter toward pure form. Founded formal *logic* and numerous sciences and branches of philosophy. Believed in *God,* and his philosophy was used as basis by *St. Thomas Aquinas.* I, 10. II, 1 and 6. III, 9. IV, 1. V, 4 and 7, (2). VI, 1. VIII, 1.

B

Bacon, Sir Francis. English philosopher (1561-1626), essayist, Lord Chancellor, founder of modern interest in inductive logic. II, 1.

Behaviorism. Methodological b. is what is commonly called the method of objective observation in *psychology;* the study of the *consciousness* of others through a study of their behavior. *Metaphysical* b. is the doctrine that *consciousness* is nothing but the behavior of the *organism.* VI, 2 and 8.

Being. Any *entity* or *object.* Whatever may be mentioned or reckoned with. See *existence, reality.*

Bergson, Henri. A French thinker (1859-) who holds that *intuition* is superior to intellect, that *reality* is a stream of constant change and development. He believes in freedom and attacks *mechanism.* His great work is *Creative Evolution.* I, 2. II, 9. V, 5, (3). IX, 2 and 5.

Berkeley, George. Bishop of Cloyne, Ireland. An *idealist,* or *personalist,* (1685-1753) who held that only *spirits* and their *ideas* exist, and that the *being* of *matter* consists entirely in its being perceived (*esse* is *percipi*). When things are not perceived by us, *God* perceives them. His chief work is *A Treatise Concerning the Principles of Human Knowledge.* I, 2. III, 4, (1). V, 5, (4), (c). VI, 1 and 5. VII, 10.

Boole, G. English mathematician (1816-1854) and founder of symbolic logic. Author of *The Mathematical Analysis of Logic,* 1847.

Bosanquet, Bernard (pron. Bosanket). English speculative philosopher (1848-1923). Contributed to *idealistic logic* of *coherence* and *metaphysics* of *value.* Influenced by *F. H. Bradley.* I, 11, (4). II, 1.

Bowne, Borden Parker. American founder and popularizer of *personalism* (1847-1910). Held that only *persons* are real, and that *reality* consists of a society of *interacting persons,* dependent on the Supreme *Person, God,* yet relatively free. Influenced by *Berkeley, Kant,* and *Lotze.* His chief works are, *Theory of Thought and Knowledge, Metaphysics, Theism,* and *Personalism.* I, 2. II, 1. III, 9. V, 5, (1) and (4), (c), and 7, (4) and 10. IX, 2, (2).

Bradley, F. H. Contemporary English absolutist (1846-1924). Neo-hegelian logician; author of *Principles of Logic* and *Appearance and Reality.* I, 8. II, 1.

C

Calkins, Mary Whiton. Contemporary *personalistic absolutist* (1863-). Exponent of *self-psychology.* Teaches at Wellesley College. Chief works, *Persistent Problems of Philosophy* and *First Book in Psychology.* III, 3 and 6. V, 5, (4), (c). VI, 2, (1), (a). VII, 6, (3).

Category. Fundamental principle, implied or presupposed by all *experience* (or by some important type of *experience,* as our sense *experience*). III, 9.

Cause. The use of the word in science is to be distinguished from its use in philosophy. By c. science means the invariable antecedent of a given event or complex of events; and such c. is often called *empirical, phenomenal* or *inductive.* Philosophy employs the term to mean the ultimate power that produces the *being* of anything; in this sense c. is described as *metaphysical, noumenal* or ontological. There is a tendency in recent times to restrict the term to its *empirical* use. The reader should consult a history of philosophy for *Aristotle's* four uses of the term; or see Webster's *New International Dictionary,* s.v. "cause." I, 8. VIII, 4.

Chicago School. See *Dewey.*

Class. The collection of *entities* defined by any *concept.*

Coherence. See II, 12. The coherence criterion is made the basis of the whole book from III to XI.

Comte, Auguste. French philosopher (1798-1857), founder of *positivism.* IV, 3, (6). X, 3.

Concept. A *term* that defines what is common to the *objects* to which it applies. V, 1-5.

Concrete. Antonym of *abstract.* In philosophy, taken in connection with its true context. A number is understood concretely when seen in relation to the system of mathematical truth.

Consciousness. Awareness; what ceases when we become unconscious; all the states and processes of thought, feeling, will, self-experience, etc. Strictly speaking, indefinable. VII.

Consensus Gentium. Literally, "agreement of peoples," general agreement. II, 6.

Content. Antonym of *form,* synonym of general meaning of *matter.*

Correspondence. A proposed criterion of *truth.* II, 10.

Creighton, James Edwin. Logician and *idealist* (1861-1924). Standpoint close to *Bosanquet's.* Editor of *The Philosophical Review.* II, 11.

Criticism. Careful and thorough examination. Used in technical sense of *Kant's* philosophy.

Custom. See II, 4.

D

Data. Facts given in *experience.*

Deduction. Logical inference from premises. Proceeds from the general to the particular: *vs. induction.*

Deism. Defined VIII, 3. Con-

trasted with *theism* and *pantheism.*

Democritus. Greek philosopher of Abdera (about 460-360 B. C.). A *rationalist* (holding that *thought* rather than *perception* is the test of truth) and an atomist (holding that *reality* is made up of *material* particles or atoms). He reduces qualitative to quantitative differences. IV, 6, (1). V, 5, (4), (a). VIII, 3. IX, 2, (4).

Descartes, René. Great French philosopher (1596-1650). Regarded as founder of modern philosophy. A continental *rationalist, epistemological* and *metaphysical dualist.* I, 11, (1). II, 1. III, 5. VII, 6, (2).

Description. Knowledge by *concepts;* contrasted with *acquaintance.*

Determinism. The theory that every state of *consciousness* is the necessary effect of previous conditions. VIII, 4 and 5.

Dewey, John. One of the foremost living American philosophers (1859-). *Instrumentalist, behaviorist,* founder of "Chicago School" of *pragmatism.* Has contributed extensively to educational theory. Views best stated in *Reconstruction in Philosophy.* I, 7. II, 11. III, 4, (2). V, 6, and 13, (2). VII, 10. XI, 6.

Dialectic. Term used in various senses by *Plato, Kant, Hegel,* and others. Commonly used, as by *Hegel,* of the tendency of *thought* (history, nature, etc.) to advance by giving rise to contradictory *conceptions* (thesis and antithesis) which compel a readjustment of thesis and antithesis in a new synthesis. See *antinomy.*

Double Aspect Theory. Theory that every real *object* has two aspects, one appearing as *matter,* the other being experienced as *consciousness.* VI, 10.

Driesch, Hans. Distinguished German biologist and philosopher (1867-). *Vitalist.* Chief work, *The Science and Philosophy of the Organism* (*Die Philosophie des Organischen*). IX, 2, (1).

Dualism. In general, the recognition of two irreducible principles. In ethical and religious d. the two principles are good and evil (*God* and Satan); VII, 7. In *epistemological* d. they are *idea* and *object;* III, 5-7. In *metaphysical* d. they are mind and *matter;* VII, 6. Antonyms, *monism, pluralism.*

E

Ehrenfels, Christian von. Austrian. Contributor to the *psychology* of *value.* V, 6. VII, 7, (2). X, 7.

Empiricism. Theory that all knowledge is derived from *experience* (and none from *reason*). *Experience* is usually treated as sense-experience: hence e. is then called sensationalism. See *Hume.* V, 1-5. Antonym, *rationalism.*

Entity. Whatever may be talked about or mentioned, whether *subjective* or *objective, real* or *imaginary.* A colorless word for *object.*

Epicurus. Greek hedonist (341-270 B. C.). Believes pleasures of mind superior to those of body. In metaphysics a follower of *Democritus.* V, 7, (1).

Epistemology. Theory of knowledge. III. See *Ferrier.* III, 1.

Essence. Term used by *scholasticism* to mean either that by

which a thing is what it is or the *concept* of the thing. As used by American *critical realism,* e. means immediately experienced quality, *"data,* character complexes, *logical entities."* E. is distinguished from *existence.*

Ethics. The *normative* science of *morals* or conduct, *i. e.,* of voluntary behavior.

Eucken, Rudolph. Contemporary German *idealist,* now retired (1846-). Holds philosophy of the spiritual life. VIII, 2.

Evaluation. The assigning of "true" *value* to any object relative to some standard or criterion. A *critical* or *normative valuation.*

Everett, Walter Goodnow. Professor of philosophy at Brown University and specialist in theory of *moral values* (1860-), V, 10, (4). VII, 10.

Evolution. Development. In particular the belief that higher forms of life are descended from lower forms. VIII, 4, (3). IX, 3, (5).

Existence. Sometimes used as synonym of *being;* generally in a more restricted sense, as of what has a definable place in the space-time of the physical world or of what occurs as a factor in a conscious process. See *essence.*

Experience. Any and all *consciousness* as it occurs (German, "Erlebnis"); or sense *perceptions* in particular. Or *consciousness* as organized and interpreted by the *categories* (German, "Erfahrung").

Extra-Mental. Other than or outside of all *consciousness* or mind.

F

Feeling. See II, 7.

Ferrier, J. F. Scotch *idealist* (1808-1864). Coined the term *epistemology.*

Fichte, Johann Gottlieb. German post-Kantian *idealist* (1762-1814) who holds that the universe is an ego that posits a non-Ego. He emphasizes the primacy of the practical *reason,* and regards the world as "the material of our duty under the form of sense." His *Foundation of the Whole Science of Knowledge* has been said to be the most difficult work of the history of philosophy; while his *Vocation of Man* is one of the clearest and simplest. His *Addresses to the German Nation* were of great political influence. I, 2. V, 5, (4) c.

Form. The way in which anything exists, or its relations. That which has f. is called *matter* in the most general sense. F. is the "how" of anything; *matter,* its "what." In philosophy the adjective "formal" means only "relating to form." *E. g.,* formal *logic* (which deals with the "how" of deductive thought), formal *ethics* (which deals with the "how" of conduct,—its intent).

Fringe. That part of the field of *consciousness* which is less clear and vivid than the center or focus of attention. VI, 1.

G

Genetic. Having to do with the growth, development, or *evolution* of *organisms.* VIII, 4, (3).

God. V, 13, (1) and (3). VIII, 3. X, 1-8.
Goethe. I, 11, (4).
Green, Thomas Hill. English *idealist* (1836-1882). Author *Prolegomena to Ethics.* V, 7, (4).

H

Hegel, G. W. F. German (1770-1831): was the great exponent of objective or absolute *idealism* (speculative philosophy). The universe is for him one absolute *spirit* or *Idea* ("Idee"), which expresses itself by an eternal *dialectical* process. Thinking and *being* are, for him, identical. He made important contributions to *logic,* political and moral philosophy, philosophy of history, of art and of *religion,* and history of philosophy. He was extraordinarily influential, despite the fact that he was neglected in Germany for a half century after his death. His chief works are, *Phenomenology of the Spirit, Science of Logic, Encyclopædia of the Philosophical Sciences.* See antinomy. I, 2 and 11, (2) and (4). II, 1 and 6. III, 4, (1) and 9. IV, 1. V, 1 and 5, (4), (c), and 12 and 13, (1). VI, 1.
Heraclitus. Of Ephesus (540-480). Philosopher of change, teaching that all things flow and change except the law (logos) of change.
Hocking, William Ernest. American *idealist* and philosopher of *religion* (1873-). At Harvard University. Chief work, *The Meaning of God in Human Experience.* V, 6.
Höffding, Harald. Danish psychologist and philosopher of *religion* (1843-). Author, *Philosophy of Religion.* X, 4, (2).
Hume, David. Great Scotch *empiricist* (1711-1776). Influenced *Kant.* Chief works, *Treatise on Human Nature,* and *Enquiry Concerning Human Understanding.* I, 6. IV, 6, (1). V, 5, (4), (a). VI, 6. IX, 2, (4).
Hypostatize. To treat an *abstraction* (*concept, universal*) as a separate and distinct *substance.* V, 5.

I

Idea. Used in various senses by different thinkers. 1) *Plato:* a *real universal,* an *hypostatized concept.* 2) *Locke:* any *object* of *consciousness.* 3) *Hume:* a copy of an "impression" (*i. e.,* sensation). 4) *Kant:* a rational concept of the unconditioned (*self,* world, *God*). 5) *Hegel:* the *Absolute Spirit* that includes all *reality.* 6) Current: usually, any state of *consciousness.*
Idealism. The theory that *reality* is of the nature of mind or *consciousness.* There are many varieties of i. VII, 8 and 10.
Immanent. Literally, dwelling in. Present in. An i. God is present in the world; an i. *soul,* present in *consciousness;* an i. *object,* present in possible *experience.* X, 5 and 6. VI, 5 and 9. Antonym, *transcendent.*
Immediate. That which is present to the mind without any intervening *object* or process; what is not *mediate.* II, 9. III, 4.
Immortality. See X, 7.

Induction. The process of arriving at *universals* by an investigation of *particulars.* Opposed to *deduction.* So-called "complete i." is a *universal* based on the examination of every *particular* included under it. V, 5.

Instinct. See II, 3.

Instrumentalism. The form of *pragmatism* held by *Dewey* and the *Chicago School.*

Interaction. The fact that either one of two (or more) *objects* may cause changes in the other (or others). Used particularly of the i. of mind and body. VI, 10. IX, 2, (5).

Introspection. The examination of one's own *consciousness.* VI, 2.

Intuit. To have an *intuition* of.

Intuition. An *immediate perception.* II, 9.

J

James, William. American psychologist and philosopher (1842-1910). Gifted with a brilliant literary style, was the chief popularizer of *pragmatism,* the theory that truth is tested by practical consequences. He was *empirical;* a believer in freedom, and in a finite *God.* His greatest works are, *Psychology, Varieties of Religious Experience,* and *Pragmatism.* I, 2, 10 and 11. II, 11. III, 6. V, 5, (2). VII, 5, (1) and (3), 6, (11).

Judgment. The activity of the mind in describing or interpreting *reality.* See *proposition.*

K

Kant, Immanuel. German philosopher (1724-1804). May be grouped with *Plato, Aristotle, Spinoza* and *Hegel* as one of the greatest philosophers that have lived; many regard him as the greatest. His system (*criticism*) is rich and complex. He held to the *ideality* of *space* and *time,* the a priori necessity of the *categories* (cause being the chief), the *activity* of the mind in knowledge, the primacy of the practical (*moral*) over the theoretic (speculative) *reason;* while things in themselves are unknowable, *God,* freedom, and *immortality* must, he held, be postulated by the practical *reason.* His masterpieces are *Critique of Pure Reason, Critique of Practical Reason, Critique of Judgment.* I, 2 and 8. II, 1 and 6. III, 3, 5 and 9. V, 7, (3). VI, 1. VIII, 2. IX, 2, (1). X, 3 and 4, (2).

L

Laird, John. Contemporary English *realist.* Chief work, *Problems of the Self.* VI, 5.

Leibniz, G. W. German *rationalist and idealist* (1646-1716). System (and book) called Monadology because he believed that *reality* consisted of monads (centers of force, like *souls*). IV, 6, (2). V, 5, (4), c.

Locke, John. British *empiricist* (1632-1704). *Dualist* in *epistemology* and *metaphysics.* See *idea.* Chief work, *An Essay Concerning Human Understanding.* I, 8. II, 1. III, 5.

Logic. The *normative* science of *thought.* See *formal, deductive, inductive, mathematical logic, symbolic logic.* II, 1.

Lotze, H. German *personalist* (1817-1881) and self-psychologist. V, 5, (4), (c) and 6. VI, 5.

M

McDougall, William. Distinguished British social psychologist now teaching at Harvard University. Advocate of a purposive *behaviorism.* VIII, 3.

Materialism. Theory that *matter* and its laws are all that there is or explain all. See *naturalism.* VII, 9. VI, 10.

Mathematical Logic. The science that expresses *universal* logical relations by mathematical symbols; *symbolic* logic. II, 1.

Matter. In general, antonym of *form,*—what anything is, its *content.* More specifically, that physical *entity* that is supposed to be the bearer of energy and to occupy *space.*

Mechanism. The theory that everything is completely to be explained as a necessary result of previous conditions; also, any particular system that is so determined. VIII, IX.

Meinong, Alexius. Austrian specialist in theory of *value, logic,* and *epistemology* (1854-1921). *Realist.* V, 6 and 7, (1), 12.

Metaphysics. The attempt to find a true account of *reality.* IV, 1. VII.

Method. See I, 5 and 11.

Mill, John Stuart. English *empiricist* (1806-1873) and contributor to *inductive logic.* He shared *Berkeley's* view of *matter* but not of *spirits* or *God; matter* is "a permanent possibility of sensation." His chief works are *Logic* and *Utilitarianism.* I, 2. II, 1. VI, 6.

Mind-Body Problem. See VI, 10.

Monism. In general, the theory that one principle or being will explain the plurality in the world. In *epistemological* m. that principle is the identity of *idea* and *object.* Quantitative *metaphysical* m. is the belief that the universe is one individual (see *pantheism*). VI, 5. Qualitative *metaphysical* m. holds that all *reality* is of one kind or quality. VII, 6.

Morals. The actual conduct of human individuals or societies. See *ethics.*

N

Naturalism. Theory that physical nature (*matter* and its laws) is all that there is or is a sufficient explanation of all. See *materialism.* VII, 9.

Neo-Realism. New *realism.* A name given to a movement in recent English and American philosophy, having in common their hostility to *idealism,* the doctrine that the *object* is independent of its being known, preference for *analytic* method, and the *metaphysical* doctrine that *reality* is *extra-mental.* I, 11. II, 1. III, 4. IV, 6. VI, 10, (3). VII, 9.

Neutral. Used particularly of *entities* that are neither *physical* nor mental.

Nietzsche, F. German philosopher and man of letters (1844-

1900). Held that the development of a new and more powerful type of *person* (superman) was the aim of life and bitterly attacked modern civilization and Christianity as he understood it. His greatest work is *Thus Spake Zarathustra.* I, 2. V, 6.

Nominalism. The doctrine of *scholasticism* that *universals* are only names and not *realities* ("universalia sunt nomina"). See *realism.* V, 4.

Normative. Having to do with norms, or standards of *evaluation.*

Noumenon. The *object* as it is for *true thought.* Term used by *Plato* and *Kant* especially. Antonym, *phenomenon.* III, 8.

O

Object. In medieval philosophy and later (about 1300-1750) o. meant the impression made by any *entity* on the mind. Since 1750 (Kant and others), o. has meant any *entity* to which *thought* refers, anything *thought* about. The meanings of the terms *objective* and *subjective* have thus been reversed. O. does not have specific reference to a *material* o. II, 5.

Objectivity. Now usually used in the sense of true *reality, metaphysical validity.* III, 8. V, 13.

Organism. Defined VIII, 2. See *mechanism.*

Otto, Rudolph. Contemporary German theologian and psychologist of *religion.* Chief work, *The Idea of the Holy* (*Das Heilige*). X, 4, (2).

P

Pantheism. The belief that God is all *reality.* Contrasted with *deism* and *theism.* VII, 6.

Parallelism. Defined VI, 10.

Particular. A distinct member of a class, an individual. See *concept, universal.*

Pascal, B. French religious philosopher and mathematician (1623-1662). His chief work, the *Pensées* (Thoughts), bases the defense of religion on "the heart," as opposed to *reason,* which is skeptical, and nature, which is ugly.

Peirce, Charles S. American philosopher (1839-1914) who first formulated the principles of *pragmatism.* Several of his essays have been edited by Cohen and published under the title *Chance, Love, and Logic.* II, 11. VIII, 5, (3).

Perception. Either the apprehension of sense-*objects* by the mind, or any *intuition* or *immediate consciousness.*

Perry, Ralph Barton. American *neo-realist* and *behaviorist* (1876-). Chief work, *Present Philosophical Tendencies.* VI, 1. VII, 7, (2) and 10.

Person. Defined VI, 9.

Personalism. Theory that only *persons* are *real;* that all *true being* is personal. Formerly called spiritualism or personal *idealism.* IV, 7. V, 5 and 14. VI, 9 and 11. VII, especially 10. IX. X. XI, 7.

Phenomenon. The object as it appears to the senses. See *noumenon.*

Physical Things. IV entire.

Plato. Greek philosopher, (427-347 B. C.), pupil of *Socrates* and teacher of *Aristotle.* Taught that *universals* were *objectively real Ideas.* He thought of *Ideas* as true *reality,* while *particulars* or *phenomena* were dependent and relatively unreal. Other *Ideas* in the system or hierarchy are subordinated to the *Idea* of the good. Plato contributed much to the understanding of *moral, religious* and esthetic *values.* He believed in *immortality.* Author of many dialogues, notably the *Phædo, Phædrus, Symposium* and *Republic.* I, 7 and 11 (4). IV, 6, (2). V, 4 and 5, (4), (b), and 13, (1) and (2). VI, 1. X, 7, (1), (a).

Plotinus. Neo-Platonic mystic and *pantheist* (A. D. 204-270). For him, *God* is the fundamental *reality,* and the world an "emanation" from *God.* The supreme aim of life is the mystic ecstasy of union with *God.* His works were published by Porphyry in six "enneads" (groups of nine). I, 2.

Pluralism. Theory that regards *reality* as many, either in quantity (VI, 5) or quality (VII, 6). Antonym, *monism* or *singularism.*

Positivism. Theory, founded by *Comte,* that only *objects* of sense-*experience* are known and that *metaphysics* is impossible. II, 8. III, 3. VII, 4. IX, 2 and 3, (6). X, 3 and 7.

Practical. See XI, especially XI, 2. II, 11.

Pragmatism. Philosophy founded by *C. S. Peirce* and *James;* teaches that *truth* is to be found by considering the *practical* consequences of *ideas.* II, 6 and 11. III, 4. VI, 8. See *Chicago School, Dewey, Instrumentalism.*

Proposition. A *judgment* expressed in words.

Pyrrho. Skeptic (about 360-270 B. C.) of Elis. Held that in every argument both sides can be proved. Hence peace of mind is to be found only in suspension of *judgment.*

Psychology. Variously defined as the science of *consciousness* and the science of *behavior.* See VI, 1-11. V, 7.

Purpose. See VIII and IX, especially IX, 5.

R

Rationalistic Method. Defined I, 11.

Realism. Popularly and in literature, the tendency to portray life as it is without idealization. In philosophy it has several meanings. *Epistemological* r. is the doctrine that the *object* of knowledge is not dependent on its being known: this may be either *monistic* (III, 4) or *dualistic* (III, 5 and 6). *Epistemological dualism* is now being advocated by the school of critical r. which opposes the *monism* of *neo-realism.* In *metaphysics* r. may denote the *scholastic* doctrine that *universals* are *real* (vs. *nominalism*); or any belief that *reality* is *extra-mental* (VII, 9); or the *neo-realistic* doctrine of *neutral entities.*

Reality. The whole of actual *being,* including *existence, values, persons,* and *universals.* It is the total *object* of *true thought.*

Reason. In general, the process of *thinking* and drawing inferences. Used by *Kant, Hegel,* and others as the faculty of thought

about the unconditioned or *absolute,* thought about the totality of *experience, synoptic thinking* (I, 11).

Regress, Infinite. VIII, 5, (5).

Reify. Synonym of *hypostatize.*

Religion. I, 9. V, 13. X, especially X, 3.

Romantic Method. Defined I, 11.

Royce, Josiah. American *idealist* (1853-1916), influenced by *Hegel.* Chief work, *The World and the Individual.* I, 11, (4). II, 11. III, 6. V, 5, (4), (c) and 7, (3). VIII, 10.

Russell, B. British mathematician and philosopher (1872-). Conspicuous *neo-realist.* Writes also on social themes. III, 6. V, 13, (3). VII, 10. IX, 2, (4).

S

Santayana, George. Contemporary philosopher, essayist and poet (1863-). *Critical realist.* Chief work, *Scepticism and Animal Faith.* VII, 10. IX, 2, (4).

Schiller, F. C. S. English *pragmatist or humanist* (1864-). II, 11. V, 6.

Scholasticism. A name for medieval philosophy in general; in particular, applied to the philosophy of *St. Thomas Aquinas* and his modern followers (neo-scholastics).

Schopenhauer, A. German pessimist (1788-1860), who believed that the universe is one will (the same in nature and in every man), a will to live, but without any rational purpose. He wrote *The World as Will and Idea.* I, 2 and 10. VII, 7, (2). IX, 5.

Science. See I, 8

Scientific Method. Defined I, 11.

Self. See *person.*

Sensationalism. See *empiricism.*

Singularism. Quantitative *monism.* VI, 5.

Skepticism. See III, 2 and 3. VII, 4.

Socrates. Great Greek moral philosopher (470-399 B. C.). Taught that knowledge is virtue and virtue happiness. Used method of questioning called Socratic method. Teacher of *Plato.*

Solipsism. From Latin "solus" and "ipse." The belief that "myself alone" *exists;* that all *objects* and *persons* around me are only my *ideas,* like dream things and *persons.* A view not held by any serious thinker, but often described as one of the possibilities. II, 2.

Sorley, W. R. Contemporary English *idealist* and *personalist,* at Cambridge University. Chief work, *Moral Values and the Idea of God.* I, 11, (4). III, 6. IV, 6, (2). V, 6, 10, and 12.

Soul. Defined VI, 4 and 5.

Space. See III, 9. VIII, 5.

Spaulding, Edward Gleason. American *neo-realist* (1873-). Teaches at Princeton University. I, 8 and 11, (2). VII, 7, (2) and 9, (2).

Spengler, O. Contemporary German writer on the philosophy of civilization. Chief work, *Der Untergang des Abendlandes.* XI, 5.

Spinoza, Benedict. A rationalist (1632-1677), of Jewish race. Lived and died in Holland. He held that the universe is one *substance,* which he called nature or *God,* of which, out of its infinite attributes, two are known to us. His great masterpiece is the *Ethics.* I, 2. V, 7, (2) and 13, (1). X, 4, (2).

Spirit. Synonym of *person.*

Stern, L. William. Contemporary German *personalist* (1871-). VII, 10, (2). IX, 3, (1).

Subject. Formerly meant what *object* now means. Now usually used to mean *self* as knowing.

Subjective. Pertaining to the *subject.* Often used to denote what *exists* in *consciousness* but is not true of *objects* beyond *consciousness. Feeling* is often spoken of as s.

Subconscious. See VI, 9, (3).

Subsistence. *Validity.* VII, 6.

Substance. Underlying or fundamental *reality;* that which has attributes, properties, accidents, or qualities.

Syllogism. *Judgments* so related that an inference may be drawn from them. Discovered by *Aristotle.*

Symbolic Logic. See *mathematical logic.*

Synopsis. I, 11. III, 6. X, 1.

T

Teleology. Defined VIII, 1. See VIII, 2. IX, 1-7. Antonym, *mechanism.*

Term. Any word or group of words which can serve as subject or predicate of a *proposition.*

Theism. Belief in a *personal God,* other than all created *beings* (vs. *pantheism*), who is nevertheless immanent in those *beings.* X, 5 and 6.

Thesis. See *dialectic, antimony, Hegel.* Antonym, antithesis.

Things. IV entire.

Tradition. See II, 5.

Thomas Aquinas. Dominican monk, theologian and philosopher, the greatest *scholastic.* Correlated the philosophy of *Aristotle* with the system of Christian doctrine.

Thought. The process of relating *judgments* so as to solve a problem *logically;* or the *judgment* which is a result of such a process.

Time. See VIII, 5, (7).

Timon. Of Phlius. Greek skeptic (320-230 B. C.).

Transcendent. Other than, outside of, not a part of. A t. *God* is other than the world; a t. *soul,* other than *consciousness;* a t. *object* (*Kant*) other than possible *experience.* X, 5 and 6. Antonym, *immanent.*

Truth. II, 2. Criterion of t., II, 3-12.

U

Ultimate. That which cannot be further analyzed or explained; that which is presupposed by all explanation.

Universal. See V, 1-5 and *concept.*

V

Vaihinger, H. German Kant-scholar and exponent of "Philosophy of 'As If'" (1852-). Founder of journal, *Annalen der Philosophie.* II, 11. VII, 7, (2). VIII, 1. IX, 4, (4).

Valid. Possessing either *formal* or *material truth.*

Valuation. The psychological process of attributing *value* to an *object.* See *evaluation.*

Value. See V, 2 and 3 and 6-14. VII, 7. X, 1-8. XI, 1-7.

Vitalism. Defined IX, 2, (1). See *teleology* and *mechanism.*

W

Ward, J. English psychologist and philosopher (1843-). *Pluralistic personalist,* influenced by *Leibniz.* Chief work, *Naturalism and Agnosticism.* V, 5, (4) (c). VII, 1. VII, 5, (1). IX, 6.

Whitehead, A. N. Contemporary English physicist, mathematician and philosopher. Author, *The Concept of Nature.*

Wolff, Christian. German (1679-1754); follower of Leibniz. IV, 1.

X

Xenophanes. Of Kolophon (about 565 B. C.). Called the "theological Eleatic." Chiefly interested in the unity of *God* and in attacking contemporary *anthropomorphism.*

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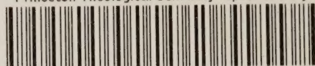
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