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INTRODUCTION TO PHILOSOPHY

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Because of this antithesis we can readily understand why at the earliest appearance of philosophy there should be evidence of opposition to religious traditions. This opposition occasionally stands out very sharply in the philosophy of the Greeks. *Xenophanes* reproaches the Homeric gods on account of their likeness to men, and their human infirmities; *Protagoras* doubts whether there be any gods at all; *Epicurus* grants the existence of deities as ideal forms, but denies them any influence upon the world's affairs.

On the other hand, we find that {attempts to unite religion and philosophy began quite early. *Plato* and *Aristotle* arrive at the idea of a single deity by speculative processes. They differ greatly, however, in their explanations of the relation of deity to the world. The *Stoics* attempt to incorporate the traditional sayings of their heroes and gods into their philosophical system by allegorical adaptation. | *Philo*, the Alexandrian Jew (born about 20 B.C.) endeavors, by allegorical interpretation, to discover a purely philosophical Cosmology in the Old Testament story of creation. Christianity makes abundant use of philosophic thought-forms, first of all for the statement and defense of its message of salvation, and afterwards likewise in formulating its doctrines. But it regards faith as decidedly superior to knowledge. During the middle ages scholastic philosophy made a strenuous effort to establish the dogmas of the Christian religion philosophically. It soon became evident, however, that not every dogma is capable of strictly rational

proof. An effort was then made to distinguish between natural and revealed theology (*theologia naturalis* and *theologia revelata*). What pertains to the latter cannot be proved, but must be accepted on the authority of revelation. Hence the antithesis, which had been apparently reconciled, appeared again within scholasticism itself.

Modern philosophy has been greatly enriched through the progress made by natural science during the seventeenth and eighteenth centuries. Mathematics likewise exerted an exceptionally strong influence. We learn, on the one hand, to prize observation and experiment as the surest sources of empirical knowledge; whilst on the other hand, we find that mathematics furnishes a system of truths which is unquestionably more valid and apparently entirely independent of experience, and which seems to be created by the reason itself. This increase in cognitive power inspired such self-confidence that philosophy felt obliged to assume an independent position on religious problems. These problems still remain the subject of profound reflection.

The *Materialism* of the eighteenth and nineteenth centuries regarded every religion as an empty phantom and tried to eliminate all such problems from science. But recent historical, and especially the ethnographical, investigations have proved conclusively that religious ideas exist wherever human beings live in social groups, and that these ideas, therefore, belong to the elementary thoughts of the human mind.

The attempt to harmonize philosophy and religion is not to be cast aside precipitately as hopeless, since indeed no one can deny the possibility of philosophical investigation, i.e., investigation which is free from prejudice, attaining results which are in harmony with refined religious ideas. One thing is certain, namely, that philosophical speculation, both in ancient and in modern times, has contributed much towards the purification of religious ideas and has brought them, both theoretically and practically, closer to the scientific world-theory. It is quite as certain, furthermore, that philosophy dare not disregard a phenomenon which is at once so general and of such far-reaching influence upon civilization as religion most certainly is. It must therefore take account of the results of the science of comparative religion, which has received such a tremendous impetus in recent decades. The effort to obtain a total, comprehensive world-view, requires philosophy to show equal regard for the results of the science of religion as for those of the other sciences. This leads us naturally to the problem of the relation of philosophy to the several sciences.

5. PHILOSOPHY AND SCIENCE

Philosophy, upon its first appearance among the Greeks, is identical with theoretical science. The desire for knowledge for its own sake characterizes philosophy as well as science. The scientific study of nature, in particular, is here as yet wholly confined to philosophers.

Aristotle, who cultivated and systematized all the learning of his age, marks the climax as well as the turning-point of this development in antiquity. This marks the beginning of the specialization of the sciences as well as their differentiation from philosophy. This process, however, has unfolded slowly and gradually. The human mind, by its severe and constant application to these problems, has slowly learned to deduce the laws of nature from observed facts and to comprehend and control nature by these laws. The constantly increasing division of labor which has taken place during the course of the centuries has resulted in the gathering of such an abundance of facts and the discovery of such complicated methods and instruments of thought, that it is utterly impossible for a single individual to-day to cover the whole field of learning independently. That this serves to advance the various sciences there is no question, but the coherence of the general body of knowledge is in danger of being lost.

This danger is still further increased by the fact, that a general aversion towards all philosophical methods prevailed among many representatives of the particular sciences during the latter half of the nineteenth century. This aversion, moreover, is due to the fact that philosophy was for a long period regarded as the queen of the sciences and wished to be recognized as such, and hence claimed the right of final decision in ultimate problems for all kinds of knowledge. Philosophy not only claimed the last word in questions of natural

science, but even assumed the prerogative of challenging facts warranted by exact observation and scientific proof and of declaring them impossible because they did not fit into the philosophic system.

Natural science has been compelled to vindicate her independence against such wholly unjustified claims, as e.g., those made by *Hegel* and his school and to insist repeatedly that the facts and laws discovered by observation and experiment are valid independent of every philosophic theory. The facts thus discovered rather form the foundation upon which scientific philosophy must build.

The unprecedented successes attained by natural science and technology during the nineteenth century, gave rise to the opinion among the great majority of investigators that only the exact methods of research, based upon observation and experiment on the one hand, and upon mathematics on the other, lead to the real advancement of our knowledge; that all philosophic speculation, on the contrary, must be regarded as nothing more than innocent amusement.

! The methods of natural science, however, were also applied in those sciences which are devoted to the investigation of mental life. ! The development of language, religion, custom and every social institution was, and still is studied on the basis of statistical and comparative methods! Here again a species of worship of facts and contempt for speculation make themselves felt.

! Science, so a noted contemporary investigator asserts,

is nothing more than experience reduced to an economic system, and its task consists in describing the processes of nature and the human mind as simply as possible. The demand, contained in this definition, to eliminate everything which we bring with us to the facts, and to follow in our thought as correctly as possible the processes just as they really take place, is of extraordinary value as a methodical rule for every scientific investigation, and hence cannot be emphasized too often.

Our native impulse, however, to combine all experience into a unitary system, the desire not only to be acquainted with nature as well as ourselves, but likewise to comprehend their respective meanings, refuses to be ruled out by a principle of methodical investigation. In addition to this it must be observed that every so-called fact which we learn to know, must be formed by our mind, in order that it may become ours. There are certain attributes of perception and thought which underlie every scientific investigation, which indeed make the investigation itself possible. Science furthermore is never satisfied with a mere acquaintance with isolated facts. It aims to discover the laws which govern events. Hence every single investigation, if it is to deserve the name of science, must take account of the whole.

That recent investigators in the various sciences feel the need of a comprehensive system and a more thorough understanding of the nature of the self is very evident. *William Ostwald*, the noted chemist of Leipsic, has published a series of lectures on Natural Philosophy and

founded a paper, *Annals of Natural Philosophy*, devoted to the examination of the problems of scientific investigation, and to inquiry concerning scientific methods and their bearing on the problems of knowledge. Historical investigators have also become weary of merely collecting dates, and insist on understanding the deeper meaning of historical development. The credit for this change belongs to the philosophy of history founded by *Herder* and *Hegel*. History thus acquires a foundation which is at once much broader and more concrete than formerly especially because of the fact that our knowledge now extends to all the facts of the habitable earth.

It appears therefore that the representatives of the special sciences are becoming more and more conscious of the fact that all human knowledge has common foundations and common purposes. Philosophy has come to regard the investigation of the foundations of knowledge as its most important task. This is especially true since *Kant*. *Fichte's* conception of a science of knowledge is again in favor. Noted thinkers of our time wish to regard the investigation of the foundations and presuppositions of all knowledge as the most important and, indeed, as the only problem with which philosophy has to do. It appears to me, however, that community of purpose is the most significant as well as the most fruitful viewpoint. All the sciences arose from practical needs, and the highest purpose of human research will forever remain the endeavor to make human life richer and happier.

Science and philosophy are devoted to the discovery of truth. The concept of truth has, however, recently undergone a process of reconstruction. We are beginning to see that truth is not a static relation between thought and fact which remains the same throughout all eternity. There is a class of thinkers at present who regard truth rather as something dynamic, something which actively leads, which serves to bring life to its perfection. A judgment is true if it increases our power over nature, if it is capable of exerting an efficient and beneficent influence upon our activities. Hence, just as science serves the practical end of increasing our mastery over nature and the human mind in individual cases through the discovery of truth, so the purpose of philosophy does not consist in intuitive contemplation, but in practical influence and in the deliberate formulation of ideals and the intelligent guidance of thought.

The question may likewise be raised whether philosophy is a science or not? In answer I would paraphrase a remark of *Schiller*, to the effect that his poem "The Artists," is not less a poem because it is more than a poem. Philosophy is therefore not less a science because it is more than science.

Philosophy is science because it rests upon scientific foundations and uses scientific methods of investigation. It is more than science because it must not only regulate experience but also supplement it, and because fancy and imagination must coöperate in the attainment of its ultimate aim, namely, a consistent world-theory. The

present day philosopher cannot ignore the obligation to appropriate the results of scientific research to the greatest possible extent, and especially to acquaint himself with the thought-forms which have been developed in the various branches of knowledge. In addition to this scientific equipment, he must likewise possess the moral courage and the gift of artistic construction, which will enable him to transcend experience and to combine the results of special research into a consistent system.

It is the philosopher's privilege to enjoy a sense of pride in a world-theory which he has brought to a successful issue in consistent thinking and artistic finish similar to that which is experienced by a general upon victory or by an artist in his masterpiece. Such a world-theory is at once a faith and a program. It is here that science, art and religion can join hands, but always with the distinct understanding that science forms the foundation and that the thought-forms forever remain scientific.

6. DIVISION OF PHILOSOPHY

A threefold classification of philosophy has come down to us from the Greeks. This division became general shortly after Aristotle, i.e., since the beginning of the third century B.C. These three divisions are Logic, Physics and Ethics.

Logic treats of the doctrine of knowledge, the laws of thought, the criteria of truth, and later also the doctrine of probability.

Physics embraces natural science, natural philosophy, cosmology and the doctrine of the human soul and its destiny. The term metaphysics originated later. Its subject-matter was the doctrine of *being*, i.e., that which exists independently of us and must be regarded as the essence of things in distinction from that which things appear to be. The name metaphysics owes its origin to the accident that the work of *Aristotle* which treats of these ultimate problems came after physics in the compilation of his works, and, since this work had no title, it was described as that which comes after physics (*τὰ μετὰ τὰ φυσικὰ*). The name and the concept have been preserved to this day, but it would be more appropriate to designate this division of philosophy by the name of *Ontology*, i.e., the doctrine of *Being*.

Ethics treats of the doctrine of human morals. But the concept of morality among the ancients is such that ethics is rather the doctrine of the highest good than of the nature of moral obligation. Politics was regarded as a part of ethics, i.e., the doctrine of the state and its forms.

Plato, *Aristotle*, and more especially *Plotinus* incidentally refer to the doctrine of the beautiful and of art, but esthetics does not form a distinct division in the philosophy of antiquity.

The division into *Logic*, *Physics* and *Ethics* was retained throughout the whole of the middle ages and it still serves as the basis for the treatment of the history of philosophy. A different classification has been intro-

duced in the modern period. This is especially the case with *Bacon* of Verulam (1561-1626) and *Christian Wolff* (1679-1754) who attempt to divide philosophy according to psychological principles. *Kant's* (1724-1804) division, which has remained the most influential even down to the present time, and which we shall also essentially adopt, follows the same principle.

In his *Critique of Pure Reason*, *Kant* gives us a philosophy of knowledge, in his *Critique of Practical Reason* a philosophy of the will, and in his *Critique of Judgment* a philosophy of feeling.

We shall also retain this division. But we shall have to divide the philosophy of knowledge into two sections. The first will have to investigate the problem concerning the possibility, the limits and the origin of knowledge, whilst the second will have to do with the objects of knowledge. *Criticism and the Theory of Knowledge* will therefore fall to the first section, whilst the second section will contain the doctrine of *Being or Ontology*.

The philosophy of feeling (sentiment), as we shall show, is nothing more than the doctrine of the sublime and the beautiful. This discipline, which, since the middle of the eighteenth century, has been called *Aesthetics*, now forms a separate division of systematic philosophy.

The philosophy of the will seeks to discover the conditions and the norms of human action. As practical philosophy, or ethics, it has always formed an important department of systematic philosophy. However, since

it is not only the individual will, but likewise the general will that is responsible for human conduct, we shall combine the most recent of philosophic disciplines, namely the doctrine of the nature of human society or Sociology, with Ethics. We shall also add a few remarks on the general principles of education or Pedagogy.

Psychology and Logic, which have been correctly regarded as preparatory or propaedeutic disciplines, will require brief consideration before turning to the exposition of the various philosophic problems. Psychology has recently become an independent science, prosecuting its investigations by purely empirical methods, independent of every philosophic speculation. It forms the indispensable foundation for all the mental sciences, which brings it into intimate relationship with philosophy. Logic is really an important propaedeutic for every one of the sciences, but for philosophy, which seeks to systematize the results of special investigation according to general principles, it is indispensable.

The history of philosophy is rightly regarded as an important department of philosophic study. There was a time when it was thought that philosophy should confine itself to the study of its history. It seems but proper, therefore, to introduce a few remarks concerning the importance of this study.

7. THE HISTORY OF PHILOSOPHY

An acquaintance with its history is of incomparably greater importance for the study of philosophy than for

any other branch of knowledge. Any one, e.g., who has chosen mathematics or physics as his department of scientific research can acquaint himself with the methods, the thought-forms and the results of research in his department without being obliged to trace out the historical origin and gradual development of all the principles of investigation. It is only after having attained the heights of knowledge, that many a one will perhaps begin to feel the need of history, and then at least perceive, as *Ernst Mach* has repeatedly emphasized in the case of physics, that a deep and thorough understanding of fundamental concepts cannot be attained without a knowledge of their historical development.

Philosophy is quite different in this respect. Here even an approximately correct understanding of a problem without a knowledge of its historical development is practically impossible. Whoever, e.g., hears the assertion: everything which I see, the starry heavens above me, the houses, the fields, the trees about me, all these are only my idea, they exist only as I perceive them, and only as my perception, will at first be disposed to regard such a view as insane. A knowledge of the historical origin of pure idealism, however, makes it perfectly clear to every one. A critical attitude toward this problem, as we shall see farther on, is impossible without a full knowledge of its history.

It follows therefore that an acquaintance with the chief data of the history of philosophy is an indispensable prerequisite for the understanding of philosophic problems.

For this reason many advise that the study of philosophy should begin with the study of its history.

The study of the history of philosophy is at the same time highly profitable for those who do not intend to specialize in philosophy. Here we become acquainted with the origin and the formulation of the thought-methods by means of which the human mind has step by step conquered the world, acquisitions "which are so easily robbed of our grateful appreciation just because they are so common and familiar." Although we to-day distinguish between matter and form in almost everything, and the concepts of possibility and of actuality have become perfectly familiar to every one of us, we nevertheless forget all too easily that *Aristotle* was the first to work out these concepts clearly and to prepare them for our use.

The chief gain to be derived from the study of the history of philosophy consists in acquiring an understanding of the gradual development of the methods of thought. The histories of philosophy, of which indeed there is no lack, should therefore make this point stand out more clearly.

The history of philosophy is not only philosophy, however, it is also history. It frequently happens that the mental content of an age is most clearly and most profoundly expressed in a philosophic system which originated within the period. Thus, as has been frequently suggested before, *Kant's* categorical imperative is a crystallization of the Prussian sense of duty, whilst

the cosmopolitanism of the *Cynics* and the *Stoics* clearly manifests the decline of Greek national pride.

The history of philosophy accordingly forms an important element of philosophic study. The terminology, which has been a matter of steady growth and with which the student is compelled to familiarize himself, imposes considerable difficulty. We shall exercise great care in our introduction therefore to give exact explanations of the most important technical expressions in order thus to facilitate the study of the history of philosophy. On the other hand, since we shall at least sketch the historical origin of the various problems in the course of our presentation, the reader will become acquainted with the most important facts of historical development and thus at the same time be introduced to the history of philosophy.

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SECOND DIVISION

THE PROPAEDEUTIC (PREPARATORY) DISCIPLINES

8. THE SUBJECT MATTER AND THE PROBLEM OF PSYCHOLOGY

Psychology is the science which treats of the laws of mental life. Its subject-matter therefore is mental life, i.e., our thinking, feeling and willing; in short everything which we experience in the ceaseless flow of psychical activity—whatever is given and known to us immediately as such experience. Hence psychology always deals only with processes. The object of its investigation always consists of processes, never fixed states of being. The inquiry concerning a substantial, persistent vehicle of the psychical phenomena which we experience, the question whether these activities issue from a persistent soul-essence which remains self-identical throughout all the vicissitudes of life, does not belong to psychology, but is properly relegated to metaphysics or ontology. The problem of the seat, simplicity and immortality of the soul naturally belongs there too. The various religious systems may formulate dogmas by religious authority concerning all such matters as find belief among the adherents of the respective religious creeds.

Scientific philosophy may postulate hypotheses concerning these things on the basis of penetrative analysis. But this does not affect psychology in the least. It investigates mental life, which is one of the most undoubted facts of which we have any knowledge. It seeks to reduce the mental processes to their simplest elements, and to ascertain the laws which govern them, entirely independent of every theological dogma and every metaphysical hypothesis.

Neither does this imply that psychology antagonizes any of these dogmas or metaphysical hypotheses. Its findings concerning soul-life are valid for every metaphysic and every theological dogma. Psychology can as little explain the essence of the soul as mechanics the essence of energy. In the one case even as in the other it is only the law governing the process that is sought. Hence psychology approaches very closely to the natural sciences, both as respects its purely empirical character and in its methods, but it is distinguished from them in respect to its subject matter. The conception of psychology which is here set forth, and its complete independence of metaphysics, is an acquisition of recent decades.

The belief in a distinct soul substance, separate from the body, which leaves the body at death and thereafter continues an independent existence, is deeply rooted in human nature. As a matter of fact, it is found among the most primitive peoples, who are still upon the lowest plane of civilization. Nearly all the religious systems of

the world have elevated this belief to a dogma and it has likewise passed into many philosophic systems as a self-evident presupposition. Accordingly the psychology of antiquity, of the middle ages and the beginning of the modern period, conceived as the doctrine of the soul, forms a department of metaphysics or ontology. Notwithstanding this, however, we find evidence of the study of actual mental life quite early in the history of reflective thought. *Plato* and *Aristotle* have made valuable contributions to this study. So also have the physician *Hippocrates* and his school, as well as the later philosophical schools of antiquity, the *Stoics*, *Epicureans*, (especially the poet-philosopher *Lucretius*), and the *Neoplatonists* (especially *Plotinus*). Even the scholastic philosophy of the middle ages was not wholly barren in this respect, as *Siebeck* has recently shown. At the beginning of the modern period this problem was attacked with increasing energy. After the knowledge of real soul-life had been greatly advanced by the searching analysis of such English thinkers of the seventeenth and eighteenth centuries, as *John Locke*, *George Berkeley*, *David Hume* and *Adam Smith*, *James Mill* (father of the famous logician and political economist, *John Stuart Mill*) published his *Analysis of the Phenomena of the Human Mind* in 1829. This was the first exposition of mental life which is free from metaphysics. *Herbart*, who also attempted to apply mathematics to the phenomena of mind, has the distinction of raising empirical psychology to the rank of science.

Herbart's distinguished pupil, *H. Lotze*, afterwards described mental life in connection with its attendant physiological phenomena in his *Medicinische Psychologie* which appeared in 1852. Shortly thereafter, *Fechner* and *Wundt* investigated this connection more closely in specific cases. They also undertook to reduce the phenomena of mind to experiment. *Fechner* and *Wundt* therefore deserve to be called the founders of modern psychology. *Wundt*, besides making large contributions himself, has given a tremendous impulse to further effort, primarily through his exhaustive treatise, *Outlines of Physiological Psychology*,¹ and likewise through the founding of the first laboratory for experimental psychology in Leipsic, which followed in 1879. A large number of institutes after the pattern of the one at Leipsic have been established in Germany, France, England, Italy, and especially in America, in which the experimental investigation of mental life is being diligently prosecuted.

Psychology has thus become an independent empirical science, free from every philosophical speculation, and it is fitted to serve as the foundation of all those sciences which have to do with mental life and which, in modern times, are generally classed under the name of the mental sciences. We shall now proceed to acquaint the reader with the several methods and tendencies which have thus been developed.

¹ 1 Ed., 1874, now in the 6 Ed., 1908. Eng. Trans. now appearing, Trans.

9. THE METHODS AND THE SCHOOLS OF PSYCHOLOGY

Just as in the case of every empirical science, it is first of all necessary for psychology to collect the largest possible number of facts. The first means to this end is the observation of events in process of consummation. Such observation is essentially different in psychology from observation in the natural sciences. Psychological phenomena cannot be perceived by our senses in the same manner as events in nature. They can only be experienced in that peculiar manner which is so well known to each one of us, but which baffles closer description. I know from experience only those psychological processes which I myself experience in my own consciousness. In order to collate facts I must, then, observe those things which I experience within myself and reduce them to a judgment. The most important and most fundamental source of information for the psychologist is therefore the observation of his own psychological experiences, or self-observation. The method of self-observation, named after its English expression (introspection—to look within) the introspective method, is therefore the first and most important.

The *introspective method*, however, is open to a great variety of difficulties and contradictions. The observation of my psychological experience is likewise an activity of the mind which on account of the inner coherence of our mental activities, must necessarily interfere with the course of the phenomena to be observed, so as to modify,

change or interrupt their course. If I wished, e.g., to observe myself in the midst of an angry passion, the anger would be cooled in the very moment that I attempted to observe it. Many regard the application of the introspective method impossible on this account and consequently they discard it as utterly useless. This view, however, is not correct. Elementary experiences, such as sense perceptions, simple feelings, both sensible and aesthetic, may, with a little practice, be observed without being essentially changed by such observation. The more complicated processes, furthermore, can be reconstructed in memory and thus likewise be observed subsequently. Here the disturbing influence of observation is practically eliminated, because the introspection combines with recollection.

After observation comes reduction and analysis. The chief business of the psychologist at present consists in making these analyses. All the processes of actual experience, are upon closer examination found to be complex. It is, therefore, necessary to discover the elementary processes which give rise to and constitute the observed processes. Hence reduction or analysis must be regarded as an essential element of the introspective method.

The reduction which is made on the basis of the introspective method, however, soon reaches its limits. The visual perception of an object, e.g., appears to introspection as a simple process incapable of further reduction. Here experiment intervenes with splendid effect

and enables us to continue the analysis beyond the limits of self-observation.

The *experimental method* in psychology, just as in the natural sciences, consists in producing the conditions for the origin of psychological processes by design and systematically, and indeed in so producing them that they may be varied both quantitatively and qualitatively at will. A psychological experiment as a rule requires two persons, the experimenter and the observer. The experimenter produces the conditions and varies them in such a way that the observer has no knowledge of the variation. The observer then reports his impressions for record, in part verbally and in part by signs previously agreed upon. Naturally, the observer is simply actively engaged in introspection. As a matter of fact it requires considerable practice to eliminate the sources of error and to reach valid results. Psychological experiments are of such a nature that in order to obtain useful results it requires a large number of them, including a number of different observers. Experiments in the same field are therefore continued for years and repeated under changed conditions. It is also important furthermore that in these cases the unsuccessful attempts, i.e., such as have not given the expected result, should be carefully recorded.

The experimental method has been greatly improved during the last decades. Much complicated apparatus has been invented which renders the experiments easier and produces more exact results. This method has been

particularly fruitful in the analysis of sense-perception. We know now that, along with the retinal stimuli, the motions of the eye and the consequent muscular stimuli, play an important part in the production of visual-sensation. The same is also the case in touch-perception. The experimental method has likewise disclosed the great significance of muscular sensations in general. This has produced a radical change in our idea of the nature of our mental life. The temporal succession of ideas, the laws of association, the acts of memory, the theory of the feelings, especially as affecting the pulse, and finally also the elementary esthetic feelings, have been greatly illuminated by the experimental method. There is reason to hope also that united effort in this sphere will result in many more new discoveries.

In addition to the introspective and experimental methods, the observation of others is another source of information which is not unimportant. In this case we of course cannot observe the psychical process directly, but only its bodily expression in movement, countenance and speech. The process itself must be inferred, and in these inferences the observer's own experiences again form the foundation. Such observations upon children, and upon individuals for whom some terrible natural calamity has closed certain sources of knowledge, are particularly instructive. Those who have been born blind, deaf-mutes, and the not infrequent cases of the deaf-mute and blind, furnish rich sources of information and we owe many important discoveries to the careful

observation of such persons. We refer especially to the wonderfully instructive education of the deaf-mute and blind Laura Bridgman, Helen Keller and Marie Heurtin.¹ These cases reveal the capacity of the sense of touch when unsupported by the other senses and the significance of verbal speech in the development of thought in a manner which is truly marvelous.

As previously stated, analysis, which reduces the observed processes to their elements, is most closely associated with the introspective method. Because of the incidental nature of psychical processes, constantly representing only an event, never a persistent state of being, the analytic consideration naturally passes over into the genetic, which conceives mental life as an evolving series, and asks which process is the first, the true original. The question, what constitutes a process, leads inevitably to the question, how and whence does it arise.

The genetic method of investigation, however, carries us beyond the individual and forces us to take account of the society in which man lives as an important factor in his mental development. As far back as we can trace man, we find him always and everywhere a social being, a gregarious animal. *Aristotle's* statement, that man is naturally a social being, is completely verified by

¹ Cf. Jerusalem, Laura Bridgman, *Erziehung einer Taubstummblinden. Eine psychologische Studie.* 1895. Helen Keller, *The Story of my Life.* Marie Heurtin, *Erziehung einer taub und blind Geborenen von W. Jerusalem (Oesterreichische Rundschau* 1905. No. 33 and 36.)

modern ethnology. Natural environment is not the sole factor in giving direction and content to mental life. Social fellowship exerts an influence which is quite as important. *Individual psychology*, therefore, naturally expands into *social*, or *ethnic psychology*. This science, founded by *Lazarus* and *Steinthal*, has made great progress during recent decades. *William Wundt's* comprehensively planned work in ethnic psychology, which is now appearing, undertakes an ethnic-psychological treatment of language, myth-formation and custom. This work opens up new and very significant points of view. The numerous works of *Adolf Bastian* likewise offer material of exceptional value. It would, therefore, seem inevitable that every psychologist is under obligation to familiarize himself with the results of modern ethnology, and to take account of the social factor in the development of human knowledge, feeling, and willing to a greater extent than has been done hitherto. *Darwin*, in his epochal work on *The Origin of the Species*, has introduced the term *ontogenetic* for the evolution of the individual, and *phylogenetic* for the evolution of the species. In this sense then we should like to insist that psychology regard the individual not alone as a solitary being, but also as influenced by his racial associates,—i.e., that not only ontogenetic methods, but phylogenetic methods should also be applied here.

If we inquire into the origin and development of the mental processes, we almost necessarily come upon the vital relation of these processes to the preservation of

life. A large measure of our thought and reflection, as every one knows, does indeed serve so-called practical ends, i.e., it is concerned about the life of the individual, his family or the community to which he belongs, either to preserve it, to make it more comfortable, or to give it more meaning and stability. If we regard mental life as a whole from this standpoint, psychology becomes a part of biology, i.e., the science of the laws of life in general. This biological method frequently casts unexpected light upon the coherence of mental life, and at the same time aids us very materially in our survey and comprehension of our rich emotional life. *Herbert Spencer* has applied the biological method with exceptional success. The author's text-book of psychology has likewise been written from this viewpoint.

The introspective and experimental methods, combined with thorough scientific analysis, aim at determining psychical facts with the utmost precision; whilst the genetic method, in its double form, i.e., the ontogenetic and the phylogenetic, in conjunction with the biologic, seeks to investigate the origin, development and significance of mental life.

As respects the different tendencies which are prominent in the psychology of the present time, they correspond in part to the preference given to the methods of investigation, in part to fundamental views concerning the greater or less significance of certain elementary classes of psychical processes.

The distinction between rational, or speculative and

empirical psychology which was customary in the past has become meaningless. What was formerly called rational psychology is now generally regarded as a part of metaphysics and is excluded from psychology. On this account also the qualifying term "empirical," i.e., based on experience, is now taken for granted and its use has consequently become superfluous.

Psychology is again divided in accordance with the respective methods employed, into *Introspective* and *Experimental*. Both these tendencies frequently attack each other sharply. The introspective psychologists bring the charge against the experimentalists, that the results of their tedious investigations are often insignificant and, furthermore, that they are more profitable to physiology than to psychology. The experimentalists, on the other hand, frequently make sport of "The Arm-chair Psychologists," and claim that psychology can be studied in an exact manner only in the laboratory.

During recent years an effort has been made to combine these two methods. This has been done most successfully at the Würzburg Institute for experimental psychology (Director, *Ostwald Kuelpe*). It amounts to a kind of introspection under conditions which are determined with scientific precision. The processes involved in judgment, as well as the other more complicated intellectual processes have been analyzed with greater precision by this method.

It is apparent from these explanations that both tendencies have their place. Scientific progress demands

the coöperation of experiment and introspection, always accompanied by scientific analysis.

In the matter of the relative importance attributed to the various psychical processes the view formerly held was that perception and idea are primary, and that feeling and willing are derived states of mind. This tendency, which still numbers many adherents, may be called the *Intellectualistic*.

Modern investigators on the other hand assert that, not the idea, but feeling and its most closely related function, volition, are the original states, from which sensation, perception and idea are later variations. This view, which is more in harmony with the evolutionary theory of life, is known as the *Voluntaristic* psychology. This tendency is growing rapidly and it is constantly winning more adherents.

10. PSYCHOLOGY AND PHYSIOLOGY

The intimate relation between the psychical and the physiological processes, or, as it is usually more briefly and more popularly expressed, between body and soul, has long since been recognized, and it has profoundly engaged the most noted thinkers for ages. We shall return to the philosophic problems which arise from reflection upon this relation, as also to the most important attempts at their solution, farther on.

Modern psychology regards it as a settled fact that the vast majority of psychical processes are accompanied by parallel physiological processes. It is furthermore

absolutely certain that the fundamental condition of a psychological process must always be a nerve-process, and indeed always one in which the human brain ultimately participates. The view that a brain process corresponds to every psychical process without exception receives general acceptance only in so far as every serious investigator is convinced that no phenomena of consciousness can exist without a brain. On the other hand, opinion is still divided with reference to the problem whether every elementary process of a phenomenon, which has been isolated by psychological analysis, likewise necessarily presupposes a similarly elementary physiological process. Thus, e.g., *Wundt* holds that every perception of any given fact requires "that the complex which is originated by the object of sensation be combined by an act of associative synthesis." This act of synthesis, according to the opinion of this famous scholar, is of a purely psychical nature and is without any parallel process of a physiological nature.

The fact that psychical processes depend to so great an extent upon brain processes has led many investigators to the conclusion that the sole problem of psychology consists in extending our knowledge of the functions of the brain, and hence that it is only a department of physiology.

We must not forget, however, that psychical processes have a nature which is wholly peculiar to themselves and entirely different from physical phenomena. Every one of the processes of nature, including those of the human

body, is accessible to sense-perception, or can be made accessible by means of the microscope or some other artificial aid to our sensory faculties. Even where this has hitherto been impossible, the further perfecting of the instruments may still accomplish it at any moment. There is no process of nature to which access through sense-perception is unthinkable. The psychical processes, however, can never be perceived with the senses. They can only be experienced in that peculiar manner immediately known to every one, but which baffles more exact description. It is just for this reason that their investigation must remain the object of a separate science.

Psychology may receive valuable suggestions for further psychological analysis from physiology, as it can in turn also indicate problems and suggest methods to physiology. But psychology can never cease to be an independent science. Its subject matter will always be different from that of every natural science.

II. PSYCHOLOGY AND PHILOSOPHY

Modern psychology, as we have seen, has renounced all metaphysical speculation, particularly every philosophic theory, and developed an independent empirical science. Notwithstanding this, the close connection between psychology and philosophy still remains. However, the relation between these two branches of knowledge has been slightly reversed. Strictly speaking, the psychologist can readily dispense with every metaphysical hypothesis, but the philosopher is now

more than ever dependent upon thorough psychological analysis.

If philosophy would hope to realize its purpose, i.e., the construction of a consistent world-theory, it must not confine itself to the laws of the physical universe, as they are revealed by natural science, but it is even more important that it take full account of the laws of psychical events, as psychology undertakes to discover them. The philosopher can at present define the limits of human knowledge only upon a psychological basis. He can discover and learn to understand the forms in which our knowledge must necessarily be expressed by the help of psychology alone. A psychological analysis of the feelings is the only method by which he can determine the conditions under which anything is regarded beautiful, and the rules for artistic construction must likewise be drawn from a knowledge of these conditions. Thorough analysis and exact study of what transpires within us whenever we approve the acts of others, and whenever we are either satisfied or dissatisfied with ourselves, furnishes the only hope of discovering a method by which to establish scientific norms of human action.

Hence psychology forms the most important foundation for a truly scientific philosophy. Whoever forgets this, or, with audacious but ill-timed confidence in the power of speculation, thinks that he can dispense with the psychological foundation, "meets with uncertainty at every turn, and is the sport of wind and wave."

Psychology nevertheless naturally leads almost neces-

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tation to go further and seek an explanat..
This, however, already leads far into the
knowledge.

The question concerning the moral and religious
ings, and the phenomena of will, furnish a still strong
temptation to enter upon an investigation of the basis
of moral laws and the problem of the freedom of the
will. This requires first of all that the psychological fact
be verified and defined without any reference whatever
to philosophical theory. But this verification frequently
implies the solution of the problem, and it is difficult to
see why the psychologist should not have the courage to
proceed a few steps beyond the mere verification of the
facts and propound a theory of explanation.

Psychology, therefore, according to its present status,
is an independent science, but it forms the indispensable
foundation for every philosophical investigation.

12. THE SUBJECT MATTER AND THE PROBLEM OF LOGIC

Logic is the science of the forms of correct thought.
We regard thought as correct when it leads to judgments
which are objectively true. Judgments are said to be

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 ...ght-processes leading
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 ...tainty of a judgment con-
 ...the predictions based upon the
 ...deration.

...y is the antithesis of subjective cer-
 ...ter cannot as a rule be transferred to
 ...ve are subjectively certain, e.g., that our
 ...nom we have known for years, will, under given
 ...tions, do a certain thing and not the opposite. We
 ...re objectively certain on the other hand, e.g., that the
 rise of the barometer indicates an increase in atmos-
 pheric pressure.

The forms of correct thinking, i.e., of the thinking
 which leads to judgments which are objectively certain,
 are therefore simply the universal conditions of this
 objective certainty. If we should take account of the
 additional circumstance that scientific investigation does
 not always attain to judgments which are objectively
 certain, but very frequently only to probability which
 varies in different cases, we should then define logic as
 the doctrine of the universal conditions of objective cer-
 tainty and probability.

The discovery of the forms of correct thinking requires
 first of all an examination of the forms of thought in
 general, i.e., we must seek to discover that which is
 common to every act of thought. The judgment-form,
 which is at the basis of all thinking, is found to be the

most general of all. The simplest perceptions, as well as the results of the most profound deliberations, are all expressed in the form of a judgment. Language has cast this thought-form into an assertory proposition. The proposition and the judgment, or, as we may put it, the judgment-proposition, forms the subject-matter of every logical investigation. When is a judgment formally correct? Under what conditions may a new correct judgment be derived from one or more correct judgments? These are the questions which form the chief subject matter of logic. Logic could therefore also be defined as the doctrine of the universal conditions of correct judgment.

But not every judgment admits of having the universal conditions of its validity demonstrated. A large number of judgments serve only to formulate and express individual perceptions, recollections and anticipations. All such judgments, I shall call them judgments of intuition, naturally have only subjective certainty, and are consequently incapable of logical proof. Such proof can be applied only in the case of judgments which make general assertions, i.e., to be more explicit, such as set forth bare facts without any individual or subjective coloring, judgments which express universal laws of nature. Such judgments as these are called conceptual judgments, and they are the only ones that can be the subject of logical proof.

The traditions of two thousand years have taught us that the best method of logical proof consists in arti-

ficially reducing the conceptual judgment to its elements. The elements of the logical judgment are concepts. The concept is a thought-form which is without meaning except as it appears in a judgment, but for logical purposes it must nevertheless receive independent treatment.

Every concept is characterized by universality. It originates as the resultant of numerous intuitional judgments and it is the unitary vehicle of the attributes and the states which are common to a number of ideas. Consciousness retains the concept by means of a symbolic sign which is usually a word. The exact meaning of the word, i.e., the attributes and states which the concept bears, forms its intension; the objects in which the respective attributes and states are found, form the extension of the concept. The traditional method of testing judgments treated them as assertions of conceptual relation. The relations of extension served this purpose best because they could be represented diagrammatically, and also because mathematical formulas could be applied to them with advantage. The relations of intension, on the other hand, always remain abstract, neither do they admit of diagrammatic representation, nor of mathematical formulation.

The traditional logic is therefore almost exclusively a logic of extension. It investigates the possible relations of concepts, inquires which of these find expression in the judgment, and seeks to ascertain how new concepts may be derived from given relations. This method of

derivation is called inference. The traditional divisions of logic therefore are the doctrine of the *concept*, the *judgment*, and *inference*.

The theory that the judgment is an expression of a conceptual relation for a long time obscured the true psychological nature of the act of judgment. As long as the judgment was treated as consisting of two elements, the fact was overlooked that the process at the basis of the judgment, and which really forms it, already contains both these elements in combination. We shall have occasion farther on to say more concerning the psychological significance of the function of judgment, as well as concerning its importance for the theory of knowledge. It must here be emphasized, however, that logic is perfectly justified in reducing the judgment to its concepts, in so far as this reduction serves its purposes. But an artificial transformation which is made to serve definite scientific ends does not carry with it the privilege of deciding upon the original and essential nature of the psychical act.

But the task of logic is not exhausted when it has treated the doctrine of the concept, the judgment and inference. It must also show how these forms are applied in scientific thought, and accordingly must examine the methods of investigation. *Wundt's* plan of separating the method of the exposition of what is already known from that of investigation is well adapted to this purpose. The methods of exposition comprise chiefly the definition and the classification of the concepts, and

the various kinds of proof. Induction and deduction, analysis and synthesis, and the more specific methods employed by the various sciences constitute the methods of investigation. The practical value of the doctrine of methods consists in its application to the particular sciences and its investigation of the specific methods employed by them. We must therefore distinguish between the general and the special doctrine of methods. The latter sets forth the logic of the special sciences. *Wundt* has performed this gigantic task in his three volume work on logic and thereby greatly increased the scope of the science of logic.

13. THE DEVELOPMENT AND THE SCHOOLS OF LOGIC

The need of a precise formulation of the universal laws of thought made itself felt toward the close of the fourth century B.C. The occasion for it was given by the so-called Megarian philosophers who challenged the possibility of true judgments, on the one hand, and on the other hand persisted in confusing their opponents by means of sophistical fallacies. After *Socrates* had insisted on conceptual knowledge and *Plato* had instituted investigations concerning the definition and classification of concepts, *Aristotle* undertook to examine and formulate the rules of inference and of proof with precision and in detail, and thus became the founder of logic.

Aristotle was thoroughly convinced that logic had nothing whatever to do with the discovery of new truths, but that it was limited to the proof of the results of

ordinary thinking. He expressly says that it is the duty of logic to reduce the inferences which are actually drawn to definite forms in order to test their validity. *Aristotle* was also well aware that in order to accomplish this we must analytically reduce the inferences really drawn to the judgments upon which they rest, and must in turn reduce the judgments to their conceptual elements. He therefore, quite correctly, called his science, *Analytics*, i.e., the art of analyzing.

Aristotle's logical writings (on the Categories or fundamental concepts, Propositions, the Doctrine of Inference and Proof, the Doctrine of the Proofs of Probability and of Definition, which are contained in the eight books of *The Topics*) were compiled in later antiquity and during the middle ages, for text-book purposes, under the title of *Isagogics* (Introduction). The forms of the syllogism were still further elaborated and a large number of technical terms created by *Theophrastus* and *Eudemus*, disciples of *Aristotle*, as well as by the *Stoics* and the scholastic philosophers of the middle ages. With these the trained dialectician was expected to operate with rapidity and certainty.

During the sixteenth century, *Peter Ramus*, a vigorous opponent of *Aristotle* and scholasticism, wrote a text-book of logic in which he followed the method of *Cicero* and *Quintilian*. He arranged the material in the manner which is still familiar to us in the ordinary text-books of logic.¹

¹The "Logic" of Peter Ramus, which he also called *Ars disserendi*, consisted of two parts. The first, *de inventione*,

The English philosopher, *Bacon*, undertook to demonstrate the futility of the Aristotelian logic in his *Novum Organum*. He emphasized the importance of induction, the process by which we ascend from the particular to the universal. Nevertheless the main doctrines of the Aristotelian-Scholastic logic still continued to be used in the text-book instruction in the schools, where it has maintained its influence in large measure even to the present day.

Logic received a new impulse and a different content through the labors of *Immanuel Kant*. He accepted the traditional, purely formal logic, and in addition thereto he invented a new kind of logical reflection, which he called transcendental logic. He believed that he had discovered the fundamental functions of the human understanding in the forms of judgment, by means of which the sense impressions coming from without are formulated. *Kant* regarded these fundamental functions as a kind of innate possession of the human mind, which creates, so to speak, the uniformity of natural law by the exercise of these functions. This view, however, ascribes a productive, indeed almost a creative power, to logical forms. *Hegel* subsequently developed this thought one-sidedly and constructed a metaphysical treated of the concept, its definition and division; the second, *de indicio*, of judgment and inference. So general was the use of this text-book, e.g., that *Secunda Petri* (the second part of the logic of Peter Ramus) became the expression for the faculty of judgment, which is used in this sense even by *Kant* and *Schopenhauer*.

logic, in which the logical evolution of the concepts is construed as coinciding with the actual process of becoming, i.e., with the nature of things. The logic of *Hegel*, despite the profound influence of his dialectical method, seemed to have fallen into complete discredit during the latter half of the nineteenth century. But at present it is being revived again in a modified form. The scholastic logic of the middle ages is again enlisting zealous exponents. In opposition to these tendencies there is an entirely different theory struggling for recognition, one which emphasizes the strictly empirical character of the logical laws.

The following schools may be distinguished in the logic of our own time :

1. *Psychological logic* makes a thorough investigation of the psychological foundations of the laws of thought. By making actual thinking the starting point this method has made rich contributions to the psychology of thinking, and greatly illuminated the nature of the thought processes as they really take place. The most outspoken exponents of this tendency, among whom the author of this volume belongs, regard logical laws as the resultant of the combined activity of general and verified experience. According to this view, the task of logic consists in discovering how much universal and verified experience is contained in every single fact of experience.

2. *Epistemological logic* seeks not only to establish the validity of the laws of thought within the sphere of

the knowable, but also to define the limits of knowledge. It thus transcends the boundaries of the specifically logical and enters upon problems of the criticism of knowledge and of metaphysics. Many of these investigations are exceedingly important, but they serve the specific purpose of logic, namely, the knowledge of the universal conditions of objective certainty, less efficiently, because they dig too deep and thus entirely unsettle confidence in objective certainty.

3. *Mathematical logic* aims to find the most accurate mathematical expression possible for the forms of judgment and inference. The investigations in this department all start from the relations of the extension of the concepts, and they have frequently accomplished surprising results. In many instances the old rules of the schools are thus greatly simplified and expressed with greater precision. The simpler formulas which are thus obtained could be employed very profitably in general instruction, but the more complicated ones are very often difficult even for the specialist to understand. A promising field of labor has at any rate been opened here.

4. The *Logic of Method* is an exceedingly fruitful extension of the field of logical inquiry. *John Stuart Mill's* system of inductive logic and the comprehensively planned work of *William Wundt*, previously mentioned, have rendered valuable service in this direction. Several very important efforts to construct a logic upon an empirico-practical basis, proceeding from American thinkers, likewise belong in this list. These efforts have

been instituted on the basis of the pragmatic principle which will receive further attention later on. We refer especially to the treatises of *John Dewey* and *Mark Baldwin*. If we should decide to regard logic simply as the doctrine of the methods of thought, and would consistently apply the concept of the "economy of thought" introduced by *Ernst Mach*, the possibility of extension in this direction would become much greater. Logic would then be nothing more than a universal economy of thought, and its task would consist in discovering how thought-instruments have always tended towards economic adjustment and how these adjustments may be still further advanced.

Kant's well-known observation, that it had been impossible to make a single step of progress in the science of logic since the time of *Aristotle*, but that neither was any retreat necessary, scarcely justified when it was made, is to-day farther from the truth than ever. Many of *Aristotle's* fundamental principles are only now being properly understood and fully appreciated. But in the statement and formulation of the problem, we have in many respects departed from and gone beyond *Aristotle*.

14. GRAMMAR, LOGIC AND PSYCHOLOGY

Logic has been closely related to grammar both in its origin and during the course of its development. The distinction between subject and predicate, between substantive, adjective and verb is the result of logical rather than of grammatical consideration. The only method

by which the laws of thought could be discovered was by an analysis of its linguistic expression. The amalgamation of logical with grammatical investigations during the course of their development, however, has frequently given rise to error, e.g., the identification of the significance of a word with the content of the concept, the sentence with the judgment, has led to the notion that every grammatical relation coincides with a logical relation and, conversely, that the development of language proceeds according to logical law, or at least that it should do so.

Grammar treats of the laws which obtain in the structure of human speech. These laws develop according to physiological and psychological processes, and hence physiology and psychology, but not logic, must form the basis of grammar. Language is the verbal expression of ideas, thoughts, feelings and attitudes of the will. Language has fulfilled its purpose whenever I express exactly what I mean, or whenever I understand exactly what others say to me. The question whether my assertions are objectively correct is here of no consequence at all, or it is at least only secondary. Grammar must therefore be wholly separated from logical inquiry and founded upon psychology.

Logic, however, is obliged to make use of the results embodied in language and to adhere to the prevailing usages of speech in stating its definitions. Logical discipline must undoubtedly exercise an important influence upon the accuracy of expression, but logic must never

dream of wishing to govern language. Logic treats of the forms of thought, and its subject-matter consists solely of the relations pertaining to thought. Logic may frequently depend on language for guidance, but it must never permit itself to be led astray by it.

Our previous remarks have already suggested the relation of logic to psychology. Psychology is obliged to investigate the actual process of human thought just as it does the other activities of the mind. It is likewise the business of the logician to familiarize himself with the results of psychology which bear on his problems. But logic is perfectly free to make such artificial transformations of the natural forms of thought as are necessary to test the general conditions of objective certainty. This is in fact its real task.

The matters of chief significance to the psychologist are the circumstances under which a judgment is formed, the person who forms it, and the subsidiary thoughts and motives which are coupled with it. The logician takes account of nothing but the judgment, that is, the conceptual relation. He must isolate the thought from every association, every element of feeling, every purpose of the thinker, in order to test it on the pure basis of its formal correctness. The more accurately, the more completely the logician succeeds in this abstraction from every irrelevant circumstance, so much the better will he succeed in his logical task. He must, however, guard against mistaking his artificial product for the true, original, living thought itself.

It is not an easy matter to fix the limits of the sphere of logic clearly and definitely. Because of this we are frequently forced to transcend the specifically logical problems for higher realms. This leads us to the relation of logic to philosophy, to the explanation of which we now proceed.

15. LOGIC AND PHILOSOPHY

Logic is the indispensable preparatory discipline for philosophy and it is frequently taught in intermediate schools as a philosophical propaedeutic. As a matter of fact, logic is essentially an indispensable preparatory discipline not alone for philosophy, but for every branch of science as well. The mind is not fettered by logic as if laced up in Spanish boots, as Mephisto jestingly remarks, but is disciplined to thoughtfulness, guarded against rash and hasty generalizations, and trained to distinguish the certain from that which is merely probable. Logic directs our attention to the laws of thought which are used instinctively, and emphasizes the importance of carefully testing the results of thinking. It is, therefore, a discipline which is indispensable for every kind of scientific inquiry.

The investigation of the more profound problems of logic leads, almost inevitably, beyond the mere logical aspect, into strictly philosophical investigations. Any one who wishes to understand clearly the relation of a concept to its symbols, as it appears in the doctrine of the concepts, any one who undertakes to test the extent

or the validity of our judgments and conclusions, cannot ignore the problem as to whether the human understanding is capable of knowing reality.

This raises the problem concerning the possibility and the origin of human knowledge and plunges us at once into the very midst of the most important of philosophic disciplines, the theory of knowledge. But the problem of knowledge already involves the problem concerning the object of our knowledge, i.e., concerning ultimate reality. In this way logic finally leads us to the doctrine of *Being*, *Ontology* or *Metaphysics*.

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THIRD DIVISION

CRITICISM OF KNOWLEDGE AND EPISTEMOLOGY

16. DOGMATISM, SKEPTICISM, CRITICISM

Philosophy is at first dogmatic, then skeptical, and finally critical on the subject of our ability to know reality. Reversions to the mental attitude of an earlier period, however, occur quite frequently.

Dogmatism is the name applied to the school of thinkers which reposes complete confidence in the results of sense-perception and reflection, and holds that the world is really constituted as we perceive it, or as we construe it in thought. The naive, unreflective man is dogmatic in both thought and action. It never even occurs to him to doubt the correctness of his knowledge, much less the possibility of knowledge. Religion is also dogmatic. It firmly believes in the truth of its doctrines, even when, or especially when they refer to objects of the supersensible world, such objects as transcend all possible experience. But philosophy was likewise dogmatic throughout a long period of its development. *Plato*, who thought the essence of things consisted of immaterial ideas, or prototypes, is no less dogmatic than *Leucippus* and *Democritus* (450 B.C.), who only grant reality to mate-

rial atoms and to empty space. *Descartes* (1596-1650), who begins with doubt, but afterwards finds in his own consciousness an incontrovertible, positive fact, is no less dogmatic than the materialists of the eighteenth and nineteenth centuries, such as *Lamettrie*, *Holbach*, *Karl Vogt* and *Buechner*, who ascribe reality only to matter and its properties and energies.

Skepticism implies an attitude of absolute doubt with respect to the possibility of knowledge. The logical consequence of this attitude requires the skeptic to refrain from every positive statement. This tendency, originated by *Pyrrho* in the third century B.C., arose in consequence of the conflicting views which were held by the various schools of philosophy. It found many adherents, even down into the late Roman period. The psychological motive for systematic doubt is the desire for tranquility and peace of mind. In order to avoid being drawn into the passionate strife of the schools these thinkers prefer to make no positive statement and they resort to every imaginable device to prove that this is the only reasonable method. We are quite well informed with respect to the arguments which have been offered by these thinkers, but it cannot be said that they have contributed anything essential to the advancement of human thought. The best that can be said is that we may learn from them to withhold judgment until the presuppositions for a conclusion are given. Absolute skepticism, however, cannot be consistently sustained. The philosophic skeptic is obliged to deport himself in his ordinary activities exactly like the dogmatist.

The ancient skepticism was revived once more during the sixteenth and seventeenth centuries by *Montaigne*, *Charron* and *Pierre Bayle* who vigorously maintained the logical impossibility of proving the dogmas of religion. *Pierre Bayle* exerted a profound influence upon the eighteenth century by his famous encyclopedic dictionary, which is permeated throughout with his skepticism. This prepared the way for the enlightenment and materialism on the one hand, and for philosophic criticism on the other. The great English thinker, *David Hume* (1711-1776), is also generally regarded as a skeptic, but his truly epoch-making investigations concerning the fundamental concepts of thought, which will be explained farther on, especially concerning substance and causality, are not skeptical, but really belong to the third stage, that of Criticism.

There is a sense in which philosophy is critical at its very beginning. Since it undertakes to attain to a world-theory by the sheer power of thinking, independently of tradition, criticism belongs to its very nature. In the narrower sense, however, only that tendency which applies critical tests not only to tradition, but also to its own capacity for knowledge, is called criticism. Criticism, in this sense, does not admit the validity of anything without previous testing. It inquires concerning the possibility and the limits of human knowledge. It investigates the origin and development of our cognitions. It seeks to discover to what extent the origin of experience rests upon subjective contributions and to mark

off the limits within which human investigation may apply itself with hope of success.

The beginnings of criticism are discernible already in ancient philosophy. The doctrine of the *Eleatics* who denied to the senses the capacity of knowledge, the assertion of *Democritus* that sweet and bitter, heat and cold, as well as color are not real attributes of things, but only subjective sensations, these all breathe a decidedly critical spirit. The necessity of testing our capacity for knowledge makes itself felt with much greater force and with far wider meaning in modern times through the labors of *John Locke*, *George Berkeley*, and *David Hume*. The investigations of the latter made a profound impression upon *Immanuel Kant*, who is the creator and founder of philosophic criticism.

Kant has made it impossible to maintain the viewpoint of dogmatism. It is not at all necessary that we agree with *Kant* everywhere and in every instance, but we must at all events reckon with him. We are obliged to dispose of the problems which he has propounded before we can proceed to any positive assertions. Just as the scientific study of law cannot be pursued otherwise than historically since *Savigny*; just as the forms of organisms can no longer be considered otherwise than evolutionally and biologically since *Darwin*, so it is no longer permissible to pursue philosophy otherwise than critically since *Kant*.

Criticism places the problem of knowledge in the front rank of philosophic inquiry, because it is the most funda-

mental and most determinative. We shall for this reason likewise begin our presentation of philosophical problems, in the narrower sense, with it.

17. THE PROBLEMS OF KNOWLEDGE

What do we understand by the term knowledge in the ordinary usage of language? When I say of a certain person, "I know him, he is an acquaintance of mine," it means the same as: "I can give you the name of the man who is approaching yonder, I know many things concerning him, know his business, his vocation, and perhaps also remember having had this or that experience with him." To say that I know a plant, means: I am in position to define the plant botanically, to give its name, and that I know the place to which scientific investigation has assigned it in the classification of plants.

Every cognition is therefore an intellectual apprehension of a given content, which is in itself distinct from the cognition. Every cognition, furthermore, is consummated in the form of a judgment, and whoever pronounces this judgment, in the firm conviction of having attained a cognition, is thereby convinced at the same time that the cognized object, or the cognized event, really exists and is really constituted just as it appears to be, independently of the fact whether it is cognized or not. Hence cognition, at least according to the ordinary usage of language, presupposes an object which exists independently and which is distinct from the cognizing subject.

The scientific significance of cognition does not essentially deviate from this customary usage of language. It only brings out more clearly the fact that cognition does not rest upon sense-perception alone, but that intellectual assimilation is also an indispensable element of the process. Scientific investigation likewise regards the independent existence of the cognized object as a self-evident presupposition.

Thorough psychological analysis of sense perception and of the act of judgment shows that the relation between the act of cognition and the object or process of cognition is not so very simple. The unreflective mind regards our ideas and judgments simply as copies of the processes represented and adjudged. Upon deeper reflection, however, it immediately becomes apparent that this conception is incorrect, that it is even impossible. Our ideas and judgments, being non-sensible, psychological processes, cannot be copies of things which are sensibly perceived. Our ideas and judgments, therefore, are not copies, but can at most be regarded as the symbols of processes which take place independently of us. The question then arises whether it is permissible to conclude that every change in the symbols, i.e., in our idea and judgment, likewise indicates a change in that which is symbolized, i.e., in objective reality. The fact that our ideas and judgments are by no means determined wholly by our environment makes it difficult to answer this question. The psychology of ideation and judgment rather shows us with increasing clearness, that our own

nature, our own organization, both in its physical and in its psychological aspects, participates in the formation of ideas and judgments. During fever we see forms to which no objective reality corresponds, and our imagination constructs from elements previously perceived new images which are nowhere to be found in the objective world. Who shall then tell us in each particular case whether or not our perceptions are hallucinations or dream-fancies? Who shall decide for us to what extent the elements of imagination have slipped into our pictures of memory? Perhaps indeed all of our so-called cognitions are no more than our own subjective experiences and, although we should be justified on this ground to speak of changes of our states of consciousness and of the contents of consciousness, we have no right to say anything concerning processes which take place independently of us. Such are the questions that give rise to the philosophical problems of knowledge, and they cannot be permanently ignored.

To be brief we may call these problems the inquiry concerning the possibility and the limits of human knowledge. This is the problem which engages the criticism of knowledge, which is one of the most difficult, but, at the same time, one of the most important divisions of theoretical philosophy.

The question concerning the origin and the development of human knowledge is indeed no less important. The primary requisite of this division of the subject is to determine the respective contributions of sense percep-

tion and of intellect to the origin of knowledge. Do we acquire our world-image through the senses alone? Is it only the understanding which comprehends the true nature of things? Or does knowledge result from the coöperation of the primary, secondary and tertiary psychical phenomena? It is further necessary to determine the contribution made by the phenomena of feeling and of will, and to investigate the significance of language for the development of knowledge. The treatment of these problems constitutes the subject-matter of the theory of knowledge.

18. THE DEVELOPMENT AND THE SCHOOLS OF THE CRITICISM OF KNOWLEDGE

The unreflective have always taken it for granted,—and this is true with the majority of men even to-day,—that the objects of their environment exist independently, and that they are exactly as they appear to be. This theory, which is not only pre-philosophical, but pre-scientific also; this tendency, which antedates all reflection concerning our faculty of cognition, and which still prevails among the masses, is called naïve Realism. It is realism because, at this stage of thought man regards the objective world which he perceives, and about which he forms ideas, as existing independently, i.e., as real; and it is naïve realism because it has not been tested by critical reflection. It is simply postulated as the self-evident presupposition of thought and action. We simply do not know any better.

As reflection supervenes, however, the standpoint of naive realism cannot long be maintained. Even such familiar illusions of the senses as occur almost daily, shake our confidence in the unquestioned correctness of our judgments of sense perception. Experiences like the following come to pass early in life: a stick inserted obliquely in water appears to be broken, when it is not really so, and objects seen at a distance really are larger than they appear to be. This unsettles our confidence in the trustworthiness of the senses and philosophical reflection casts about for other, more certain, sources of knowledge. It is readily conceivable that one may here easily go to the opposite extreme and ascribe too little cognitive power to the senses and too much to the intellect. One thing, at least, is certain, namely, that two essentially different factors contribute to the formation of our world-image. The one is outside of us, self-active, independent and possibly persistent, i.e., the objective factor. The other is our self, our senses, thoughts and feelings. This latter, which is of a transient, changeable nature, is the subjective factor. Naive realism regards the world which we perceive and know as wholly objective. The subjective factor does not yet exist for it. Just as soon as the subjective factor has been recognized we enter upon the criticism of knowledge.

The evolution of criticism takes place in such a manner, that, first of all, certain sense-impressions such as taste, heat and color are recognized as purely subjec-

tive. But the data of the sense of touch retain their objective validity for a much longer time. It has only been discovered very recently that hard and soft, round and square are just as much data of sense as smell, sound and color, and hence, that they too must receive the same critical treatment.

The subjective factor was similarly recognized in the results of abstract thought at a much later period even though the elaborations of the speculative mind had long been accepted as objectively valid. Here it was *Kant* above all others who inquired into the forms of the understanding by means of which alone experience becomes possible. The fact that we conceive complexes of sensations as independent, persistent things, that we attribute causal connection to events which regularly succeed each other, all this and much more besides, *Kant* ascribes to innate properties of our understanding. It is by means of these fundamental forms or categories that we mold our objective impressions, which are chaotic in themselves, into the resulting experience. This is the only means by which experience can possibly arise. Everything knowable in our world-theory is therefore, first of all, determined by the innate forms of sensibility, space and time, and then also by the categories of the understanding. Hence it is only the subjective factor that is knowable and within the reach of experience. That which remains, after we eliminate the subjective factor from experience, is the "thing-in-itself" which is absolutely unknowable. According to *Kant* the exist-

ence of this "thing-in-itself," in its pure objectivity and without any dependence upon us, is absolutely certain, but this is likewise the limit of our certainty. Hence the objective factor really exists, but it is entirely unknowable.

This existence of the thing-in-itself, which *Kant* still holds, is, however, likewise denied by modern thinkers as wholly unprovable, indeed as unthinkable. These thinkers say that even existence is only a category of the understanding. Thus, in direct opposition to naive realism, we arrive at a theory of the universe which is stripped of every vestige of objective reality.

The things which we perceive and infer about the objective world, as well as the teachings of science, consist of nothing more than the contents of our own consciousness. If we abstract human consciousness, its entire content vanishes with it, i.e., the whole world is obliterated. Heaven and earth, land and sea, hill and valley are only our ideas. Whoever asserts that there is an objective world independent of our consciousness, asserts what is inaccessible to proof and even contradictory.

This tendency, the direct antithesis of naive realism, is generally known under the name of Idealism. According to this theory the world is nothing more than the content of our consciousness, or at least our knowledge of it does not extend beyond the content of our consciousness. Idealism appears in a variety of forms, the most important of which will here be indicated. We must,

however, first familiarize ourselves with the customary terminology.

The term *immanent* is applied to whatever is given as the content of consciousness or is regarded as having no existence outside of consciousness. Whatever goes beyond consciousness and exists independently of it, is called *transcendent*, or extra-mental. The strict idealist, consequently, only believes in an immanent world, and refuses to grant the existence of a transcendent or extra-mental universe.

The term transcendental, *Kant's* favorite concept, has an essentially different meaning from the term transcendent. *Kant* applies the term transcendental to everything which is independent of experience, that which exists before all experience, i.e., whatever is *a priori* provable and certain. Hence *Kant's* transcendental idealism asserts that there are certain primary forms of sensibility and of the understanding which do not originate through experience, but exist before all experience, and indeed make experience possible through the formation of the thing-in-itself which impresses them. This theory therefore still continues to be realism in so far as it concedes the independent extra-mental or transcendent existence of the thing-in-itself. According to it our knowledge is limited to appearance or phenomenon. This theory is therefore also known as *Phenomenalism*.

Immanent idealism on the other hand, which, in recent years, has also been called immanent philosophy, contends that the existence of the objective world is

exhausted in the statement that it is the content of human consciousness. This concedes the reality of nothing transcendent, nothing extra-mental. Whoever maintains the existence of a world independent of consciousness, the idealists contend, doubles the world in a manner which is wholly unjustifiable.

This world-theory, inasmuch as it virtually implies that every thinker only acknowledges the reality of himself and the content of his consciousness, has been called *Solipsism* (*solus*—alone, *ipse*—self).

The so-called Neokantians, *Schuppe*, *Rehmke*, *v. Leclair*, *Schubert-Soldern*, etc., represent this strict idealist conception.

The so-called *Positivism* of modern times represents still another theory which is closely related to phenomenalism. This theory teaches that science should confine itself to the investigation of the uniformity of phenomena for the sole purpose of learning to regulate events without regard to the ultimate grounds of being, which must forever remain unknowable. The Frenchman, *Auguste Comte* (1798-1857) is the founder of this school. *John Stuart Mill* of England and *Ernst Laas* of Germany are in a certain sense disciples of *Comte*.

In opposition to these idealistic tendencies, realism has reasserted itself again. Every scientific thinker must indeed concede the futility of trying to maintain naive realism. But, after making due allowance for the subjective factor in our world-theory, there still remains a considerable objective residue to be accounted for. And

in spite of all that idealism has to say, the existence of an objective world which both affects us, and is at the same time independent of us, is a demonstrable fact, or it is, at least, the assumption which best satisfies sound common sense as well as philosophic thought. This critical tendency is called *Critical Realism*.

We shall have occasion to discuss the various tendencies of critical realism farther on when we come to the explanation of the problem of the origin of knowledge. For the present we must acquaint ourselves with the idealistic arguments and test their validity.

19. CRITICAL IDEALISM

The view that the world of my environment is only my idea, that everything which I seem to cognize by perception or thought does not really belong to the objective world, but can only be regarded as the content of my consciousness, sounds exceedingly strange to the unreflective mind. Our whole practical world-theory indeed rests upon the assumption, or rather upon the self-evident presumption that that which I see and apprehend really exists, and exists also even when I no longer perceive it.

The theory of the ideality of the external world becomes at least somewhat more intelligible as we become acquainted with its historical development. We readily understand that our physical and psychical organism is not merely receptive in the process which produces our world-image. This world-image is rather the product

of the reactions of the organism upon objective stimuli, i.e., of its own activities. It is evident, therefore, that we ourselves, i.e., our organism as it is physically and psychically constituted, contribute much to the resultant experience. A little exercise in psychological analysis will render this still more intelligible and furnish a better understanding of its details.

If, e.g., I contemplate the table at which I am now working: according to naive realism it is a quadrangular piece of wood, painted brown, which rests upon four legs. If, however, I examine more closely into the particular elements of this perception, I find that, first of all, the color exists only as my sensation, the form of the table enters my consciousness through a complex of retinal and muscular sensations of the eye, its hardness, as also its smoothness, if examined closely, are indeed only qualities of touch. Accordingly, the table, which at the beginning was entirely objective, has become a complex of subjective qualities of sensation. The question still remains to what extent this complex appears to me as a unit, as an object, the attributes of which are the qualities of sensation just mentioned. If I inquire into what remains after I abstract color, form, hardness, smoothness from the table, a perplexity results to say the least, and an answer could scarcely be given. If it appears then that this comprehension of sensation-complexes into unitary things is grounded in the psychical organization of man, then indeed, so it would appear, the entire table really becomes a mere phenomenon, a con-

tent of consciousness, concerning which there can be no ground for asserting that it exists independent of my consciousness.

I can prove in the same manner that every object of my environment is a complex of sensations, the combination of which depends upon a definite organization of my being.

Should any one wish to make use of the discoveries of physics in order to distinguish the subjective from the objective, it would avail nothing against the strictly idealistic observation. It might be objected that what we experience as light, is in reality vibration of ether, and what we experience as sound is in reality vibration of air. Colors and sounds are only subjectively present but those vibrations which physics has discovered to be the objective causes of these sensations exist independently of every eye and ear. The idealist would, however, answer: The vibrations of air and ether nevertheless still remain only vibrations which we have thought, and which can, under favorable circumstances, be rendered sensibly perceptible. Hence the subjective factor is by no means thus eliminated. Even these "objective" causes of our sensations remain contents of consciousness.

But when we come to consider the causal character of these vibrations the situation is a peculiar one. The eye and the ear appear to be sense organs which operate at a distance. They enable us to perceive processes which take place at a certain spatial distance from us. Just as

soon as we conceive the sensations of the respective senses as results of vibrations which reach the organ and there, in consequence of a kind of contact, produce the sensation, the respective sensations receive the simple character of tactual sensations. Our eye and ear thus become organs of touch, which only apparently operate in the distance, but as a matter of fact are affected just like our skin, only by immediate contact. But the sense of touch was for a long time regarded as the most infallible sense, because it directly apprehends the objects themselves. And this is largely the case even yet. Idealism, however, is certainly correct in saying that the data of touch are of the same subjective character as the data of the other senses.

It consequently appears utterly impossible wholly to eliminate the subjective factor from our cognitions. Wherever a separation of the objective causes from the subjective result seems possible, it always appears that the objective causes are likewise only given as a content of consciousness.

Strict idealism has received additional confirmation from the modern physiology of the senses. Johannes Mueller, in his well known laws of the specific energies of the senses, has generalized the fact that our nerves of sense, no matter how they are stimulated, always react in an identical manner.

If, e.g., the optic nerve (*nervus opticus*) is stimulated by pressure or by an electric current, color sensations arise just exactly as if it were stimulated by light.

On the basis of this law, therefore, it is not at all certain whether the cause of our sensations is something which exists objectively, or whether it is a process which originates within the sensory nerve in some other manner.

As long as I contemplate the world simply as a single individual there is no way of denying that the world exists only as the content of my consciousness. The *being*, or *esse*, of the things which I have perceived exists only in its being perceived (*percipi*). It is thus that *Berkeley* has briefly and concisely formulated the theory of idealism. The assumption of a transcendent, extra-mental world, so it would appear, is wholly arbitrary and superfluous, and beyond all possibility of proof. Such eminent natural scientists as *Helmholtz* and *Meynert*, and, in a certain sense also, *Mach*, have even declared that science should confine itself to the investigation of the uniformities of phenomena, and that it can never expect to furnish any proof of their objective nature. *Meynert* has even regarded the fact that we are able to conceive the ideality of the world as the evidence and proof of the capabilities of the intellect.

Let us now proceed to examine the validity of these arguments.

20. EXAMINATION OF CRITICAL IDEALISM

The efforts of more than two thousand years of human thought, which have led to the theory that the existence of perceivable things consists in their being perceived

(*Esse-percipi*, Berkeley), or that the world is my idea (*Schopenhauer*), have revealed what profound depths of the human mind must be explored in order to determine the nature, limits and validity of human knowledge. Confidence in the trustworthiness of the senses was shaken by sensory illusions already in antiquity, but without affecting the objective reality of the things which rest upon abstract thought. Berkeley, Hume and Kant afterwards discovered that our pure thought-forms are also of a subjective character. They likewise drew the logical inference, namely, that only phenomena are knowable; the thing-in-itself, behind the phenomenon, they pronounced unknowable.

Thus far the results of the criticism of knowledge must be acknowledged without reservation. But in order to guard against gross misunderstandings, which only too easily slip into trains of thought which are so exceedingly abstract and in many respects so unusual, we must distinguish accurately between mere semblance (*Schein*) and true appearance (*Erscheinung*).

By semblance we understand an occasion for ideas which lead to false judgments. The sensory illusion, which here concerns us chiefly, consists of an objective impression made upon our senses in so far as such impression leads to a false judgment. Judgments are said to be false when they are corrected by subsequent perceptions or reflections, or when the expectations founded on the judgments occasioned by the semblance are not realized. Two examples will serve to illustrate this.

A stick that is plunged obliquely into water looks as if it were broken, i.e., it gives rise to the judgment: the stick is broken. We then withdraw the stick and find that it retains its rectilinear form, and we now form the judgment: the stick is not broken. The possibility, however still remains, that the water breaks the stick. Then in order to convince ourselves we examine the immersed stick with the hand, and find that a break of the stick even while in the water cannot be established by our sense of touch. The greater trustworthiness which we accord to the judgment of touch now leads us to the judgment: the stick is not broken, it only appears so. When we subsequently become acquainted with the laws of the refraction of light, we discover that even this appearance of being broken is accounted for, and the matter is finally settled. We have the same sense impression of the broken stick afterwards, but it no longer deceives our judgment.

The case of the apparent motion of the celestial bodies is more complicated. We all know from our school days that the sun stands still, and that the earth moves. Nevertheless the sun seems to all of us as if it rose and set daily, whilst the earth apparently does not change its place, and as a rule our ordinary judgments are governed by this appearance. Our conviction of the correctness of the Copernican world-theory is none the less certain on this account. But the conviction itself, resting as it does upon undeniable and irresistible reflections rather than evidences of sense perception, is occasionally

obscured by appearances. No well-informed man, however, will permit his judgment to be misled by this semblance even though it is so universal, so realistic, and, literally speaking, so very deceptive.

• But phenomenon, or true appearance, means something vastly different. By phenomenon we mean the objective world as it is presented to our senses, and in a broader sense also, as we conceive it. By phenomenon we understand not only the first, fleeting objective impression, not merely the phantasm which affects our sense-organ, but that aspect of the world which is approachable by our cognitive faculty. As far as the world is knowable, just so far is it phenomenon. Phenomenon does not deceive us like semblance does. The word merely reminds us that there are limits to our knowledge.

The incisive question of the criticism of knowledge then is, are we justified in concluding from the phenomenon, which is the only thing accessible to us, to the existence of a reality supporting it, which, whether knowable or not, exists independently of us. *Kant*, who was the first to comprehend the concept of phenomenon here developed in its profound significance, and who, as no one before him, has profoundly analyzed our faculty of cognition, has answered this question with an emphatic affirmative. Notwithstanding many passages, in which he degrades the thing-in-itself to the level of a mere thought, it is nevertheless his firm conviction that phenomenal appearance of every description is supported by a reality, an existent-something independent

of the knowing subject. In this sense our deepest and truest feelings agree with *Kant* and the whole energy of our being refuses to acquiesce in a denial of reality in phenomena. Whenever we perceive an object with our senses, we act under a compulsion which we cannot avoid ascribing to an objective factor. We see that our fellowmen experience a similar compulsion, and we can never believe that the things which we perceive will vanish after we no longer perceive them.

Nevertheless as we have seen above, the arguments of strict idealism as advanced by the Neokantians, have considerable logical force. As long as I contemplate my environment solitary and alone, it is impossible to challenge the position of the idealists, according to which the world is the content of my consciousness. But this gives rise to a situation in the mind of every serious thinker who is anxious to attain a consistent world-theory, which cannot be permanently satisfactory. Whilst an inexorable logic forbids a single step into the extra-mental, our inmost feeling of reality cannot and will not be satisfied with the denial of the objective world. But a philosopher can never rest his case on conflicting sentiments. He must be able to demonstrate the error of anything that impresses him as false. Here, then, reflection on the consciousness of others, offers a way of escape from the intolerable discord between thought and feeling.

To the strict idealist, associates are obviously only phenomena, true appearances, nothing more. So far as

the matter pertains to their physical organism there is no difficulty, since indeed we must also regard our own bodies as belonging to the objective world. But the matter becomes more difficult the moment we consider the contents of the consciousness of our associates.

Let us suppose some one, M, visits me, and we engage in conversation. So long as I regard M as nothing more than the content of my consciousness, I must conceive the language-sounds which issue from him, just as I do the sounds of a bell, as the mere mechanical results of his organs of speech. But just as soon as I answer him, or do his bidding, I have already tacitly granted that I discover the expression of psychical phenomena in his words. But by so doing I have acknowledged that M possesses consciousness, i.e., contents of consciousness. But this is already an admission that M is a distinct being, independent of me. Inasmuch as he has contents of consciousness, he possesses, strictly speaking, the same independence of existence which I claim for myself. We cannot regard a being possessing a consciousness of its own as the content of the consciousness of another, much less can its existence be resolved into a mere idea.

This becomes still more evident from the following consideration. M has certainly had many experiences of which I know absolutely nothing. But if I should wish to regard M as nothing more than the content of my consciousness, then I should either have to deny him any consciousness of his own, or, at least, to incorporate

him, as it were, together with the whole content of his consciousness, within my own consciousness. But this is impossible. For in no event can I claim, unless I am willing to go right in the face of the most evident and undoubted facts, that I know the whole content of M's consciousness. I must indeed frankly acknowledge that there are contents of consciousness which belong to M which can under no circumstances, become a content of my consciousness. But M was supposed to be nothing more than the content of my consciousness. Hence it follows, in defiance of all logic, that the consciousness which forms the content of my consciousness would not be the content of my consciousness at all.

It is, therefore, evident that critical idealism, consistently developed to its logical conclusions, leads to logical absurdities, whereby its arguments lose all their convincing force. A world-view which regards our associates as nothing more than physical machines, denying to them distinctive centers of consciousness, cannot establish the claim of being an adequate expression of reality.

George Berkeley, the founder of idealism, did not hesitate to grant a plurality of minds, feeling and thinking independently of each other, but he fails to discover the inconsistency contained in this assumption. Recent idealists, as, e.g., *v. Leclair*, have comprehended the difficulty of the "alter-ego problem" perfectly. They admit, incidentally, that from their standpoint, it is not yet solved. They take refuge in the fiction of a universal

consciousness, the content of which is the universe itself. It scarcely needs to be said that such an hypothesis is no longer critical epistemology, but metaphysical and transcendent in the highest degree, i.e., that it transcends every possible experience. But this hypothesis is likewise psychologically practically inconceivable. It is scarcely possible to imagine one's self as fully comprehending it. A theory, however, which obscures a fact as undoubted as the existence of associates who are endowed with consciousness, or is able to explain it only by the most daring metaphysical hypothesis, naturally loses all convincing force and, consequently, all philosophical value.

We must inquire furthermore how a doctrine, which is in such open conflict with common sense, one which the idealists themselves are unable to apply consistently to real life, could ever have arisen. We have indicated above (page 67) that the subjective factor in our cognitive processes has been constantly gaining in prominence, and that the objective factor has been correspondingly losing in prominence, even to its total elimination. The possibility of such a thing taking place rests upon a circumstance which I have more fully developed in another work.¹ Every human impulse tends to develop more fully, in proportion to the demands which the preservation of life make upon it. The cognitive impulse, as we shall presently show, has arisen from the impulse of self-preservation. It has, however, advanced beyond these

¹ *Urteilsfunktion*, p. 232.

immediate demands and gradually elaborated the mighty structure of the theoretical sciences. We can readily understand how it may happen that the over-development of certain organs or functions of our organism by excessive exercise, and at the expense of other organs and functions, should seriously impair the whole. In such cases we are accustomed to speak of the hypertrophy of the organ or function under consideration. Thus, for example, certain muscles frequently hypertrophy from excessive athletic exercise. Critical idealism, regarded after this analogy, appears as an hypertrophy of the cognitive impulse. This hypertrophy, which is so thoroughly unsound and so exceedingly detrimental to the faculty of cognition as well as to the development of the mind as a whole, must be corrected by reversion. It is therefore imperative that we return to the common sense view and regard the world and its inhabitants as self-active and independent beings, whose existence is independent of the cognizing subject. But this is the viewpoint of *Critical Realism*.

21. CRITICAL REALISM

Critical realism approaches very closely to the common sense view of things. It is distinguished from the naive realism of this stage of thought by its refusal to accept the real existence of the world of our perceptions without critical test. It seeks to verify reality, however, by refuting the counter arguments and so modifying the

theory as to harmonize it with the results of the criticism of knowledge.

From the standpoint of critical realism, the processes of nature as well as of human consciousness possess objective reality, and they exist entirely independent of the knowing subject. Whatever becomes objectively certain or probable through perception, or whatever we know by reflection, is the product of two factors, one of which is objective and independent of ourselves, and the other is our own physical and psychical organization. Critical realism likewise regards the data of our senses as phenomena, but they are the phenomena of something which is real, something which has independent existence. "The leaf is green," in the language of critical realism, means the same as to say: This leaf has the property, under favorable illumination, of exciting in the human eye the color-sensation, green. Without an eye which sees, the green is wholly without content, but the conditions for the sensation of green may remain although there should be neither light nor color. These conditions belong objectively to the leaf.

(Critical realism does not, like naive realism, assert that things are what they appear to be, but it rather affirms that we perceive them as they are in reality. That which we perceive and apprehend by reflection is one side of a real process which takes place independently of us, and indeed it is the only side to which we have access, but it is also the only side which has any significance for us. How these processes might appear

to a being who is differently organized is, we admit, beyond the reach of human ingenuity, but that is likewise a matter of absolute indifference to us. *Kant's* thing-in-itself is, therefore, not entirely unknowable. It rather presents to us that phase of reality which is accessible to us, and it is the business of investigation to discover new paths of approach.

The human eye did not discern the Roentgen rays for a long time, but their existence has finally become known through their remarkable efficiency. There can be no doubt but that many more forces which exist in nature will eventually disclose their presence to the investigator by their effects. Thus new aspects of the thing-in-itself will continue to disclose themselves to human knowledge.

Critical idealism, as we have seen, answers the question concerning the possibility of knowing the reality of anything existing independently of us, in the negative. Naive realism never raises the question, because for it the question does not exist. Critical realism, on the other hand, after careful examination of all the counter arguments, answers with an emphatic affirmative. The denial of the possibility of objective knowledge empties the question concerning its origin of all content. Its affirmation, however, calls up all the problems which we have above designated as constituting the subject matter of epistemology.

22. THE DEVELOPMENT AND THE SCHOOLS OF EPISTEMOLOGY

It is the business of *Epistemology* to investigate the origin and development of human knowledge, and to ascertain the elementary processes which compose the exceedingly complex cognitive process.

The theory of knowledge is distinguished from the criticism of knowledge by the fact that the latter raises the question concerning the possibility of knowledge, whilst the former assumes the fact that we do know, and only undertakes to investigate the development of our knowledge and the laws which govern it, and at the same time, to exhibit its relation to the rest of our psychological life. These two philosophic disciplines, however, very frequently coincide. The question concerning the limits of human knowledge is common to both of them, and they are therefore largely combined into a single discipline. The separation which we have introduced may perhaps contribute somewhat to an easier understanding of the problems.

In the history of philosophy, the theory of knowledge appears later than the criticism of knowledge. Even the Eleatics, and subsequently the Atomists (fifth century, B.C.), already denied the possibility of gaining knowledge by sense perception, but they made no attempt to explain the origin of knowledge. We find a still more incisive criticism among the Cyrenaics (fourth century B.C.) who even teach a doctrine somewhat akin to phenomenalism. On the other hand, there was no attempt

to explain the origin and development of knowledge worth mentioning before *Aristotle*, who subjected it to searching investigation. The Stoics likewise investigated the origin of knowledge, and inquired after the criterion of truth.

It was reserved, however, for modern times to elaborate a scientific theory of knowledge. *John Locke* (1632-1704) furnished the strongest impulse in this direction. Both *Berkeley* and *Hume* likewise made rich contributions to its further development. At this point *Kant* is again an explorer and discoverer, for it was he who, above all others, established for all time the indispensable necessity of epistemological investigation.

In the *Critique of Pure Reason*, *Kant* makes a sharp distinction between the two sources of knowledge: a sharper distinction perhaps than psychological facts will warrant. These two sources are the sensibility (*Sinnlichkeit, Sensualitas*) and the understanding. This dichotomous division furnishes the standard for the chief tendencies of epistemological theory.

The question concerning the primary source of our knowledge has received two answers. One school designates the senses as the most important, indeed as the only reliable sources of knowledge. This philosophic tendency is called *Sensualism*. The other school holds that accurate knowledge can only be obtained by abstract, conceptual thought, whilst the senses only furnish chaotic, and confused impressions. This philosophic tendency is commonly called *Rationalism*. Inasmuch

as the latter term has frequently been used in another sense, namely, to signify the rational explanation of miracles, it will be preferable to use the word *Intellectualism*, whenever we refer to the epistemological tendency which is opposed to sensualism.

In addition to these one-sided tendencies, the conviction is constantly gaining ground that knowledge is the result of the coöperation of perception and thought. No definite name has as yet been coined for this coöperative school, which is the only one that corresponds with the facts. But this is readily understood, because the views which it incorporates are so widely diverse.

All the epistemological theories hitherto considered have confined themselves to the investigation of the origin and development of knowledge on the basis of regarding man as an isolated individual, i.e., man merely as related to his environment and as reacting upon the stimuli which affect him from without. But modern ethnology has revealed the fact that social life and intercourse are of great significance, not only for the communication of knowledge, but likewise for its origin. This has long been recognized with respect to the origin of language, and the epistemological significance of language has been thoroughly investigated. But the social factor in the development of knowledge undoubtedly involves something more than the matter of language which is still far from having received adequate scientific attention.

23. SENSUALISM

All unreflective thought is in a certain sense sensualistic, because it regards sense perception as the most reliable source of knowledge. The Greek word *oída*—I know, is the perfect tense of the root *id*, which signifies *to see*. Knowledge, therefore, in the popular understanding of the Greeks, was originally equivalent to having seen. An interesting proof for this popular conception is found in the passage of Homer's *Iliad*, 2, 484 ff, where the poet appeals to the muses, who are able to see everything and who, therefore, know all things. It is, furthermore, characteristic of this stage of thought to identify the processes of perception and reflection, the latter being regarded as a species of sense perception. This conception is even found in the older Greek philosophy.

Sensualism, in the philosophic sense, however, does not become a definite theory until the senses, in distinction from the understanding, are regarded as the sole source of knowledge. The Sophist *Protagoras* (died 411 B.C.) is a sensualist in this sense. In opposition to the Eleatics, who reject the witness of the senses, he affirms that nothing exists except that which is perceived by the senses. He even goes so far as to deny the truth of the geometrical axioms whenever they appear to be in conflict with sense perception.¹

¹The interpretation of Protagoras' doctrine here given differs essentially from the one usually contained in the majority of our histories of philosophy. Gomperz, *Griechische Denker*. Vol. I,

In modern philosophy, *John Locke* revived sensualism again by directing attention to the sensory origin of all experience. *Locke's* sensualism, however, is not entirely pure because of the fact that he also recognizes an inner perception (reflection). The Frenchman, *Condillac* (1715-1780), is the most outspoken sensualist in modern philosophy. According to *Condillac*, the soul has but a single faculty. This faculty is sensuous perception, whence all the more complicated thought processes are evolved. In order to illustrate his theory, *Condillac* makes use of the fiction of a statue to which the several senses are added one by one. It first receives the sense of smell, and last of all the sense of touch, which produces the idea of the objective world.

Sensualism was for a long time completely overshadowed by the great intellectualistic systems of *Kant*, *Fichte*, *Schelling* and *Hegel*, but it has regained a certain measure of recognition again in present day science and philosophy. The conviction that sense-perception forms the ultimate source of all experience is becoming ever more general. If the task of science is confined to the mere description of facts, as *Kirchhoff* and *Mach* maintain, and if, according to *Mach's* formulation, science is nothing more than experience economically arranged, then of course their theory is a kind of sensualism. If mathematics, the most important instrument of thought which we employ in our descriptions and

p. 362 ff. and W. Jerusalem, *zur Deutung des Homo—mensura—Satzes* in *Eranos Vindobonensis*, (1893), p. 153 ff.

economic arrangements, is, in the last analysis, also reducible to sensuous perception, then the theory becomes even more sensualistic than ever. Sensualism is undoubtedly correct when it regards sense-perception as the most original source and the final arbiter of experience, so far as physical phenomena are concerned. There are, however, two facts of which it fails to take account: first, that in the observation of our own mental phenomena we have another, coördinate and equally reliable, source of experience; and, secondly, that higher, that is, more complex mental phenomena merge insensibly in the processes of perception.

24. INTELLECTUALISM

Philosophy was led to regard the senses as unreliable sources of knowledge at a very early date. This was due to the perplexity resulting from sensory illusions and individual differences in sense perception.

The belief prevailed that the true nature of things could be accurately comprehended by abstract thought, wholly withdrawn from the world of sense and absorbed within itself. This is the reason why *intellectualism* arose at such an early date.

As has frequently been noted before, the Eleatics believed that knowledge of the real world could be obtained through pure thought alone. *Plato* follows them in this and adds the idea that the soul, imprisoned in the body, is polluted by contact with the corporeal, and that true

knowledge is only possible through absolute renunciation of bodily conditions.

St. Augustine, starting from this conception of *Plato*, declares that our mind knows nothing so certainly as that which is present to it, and nothing is more certainly present to it than itself. (*Nihil tam novit mens, quam id, quod sibi praesto est, nec menti magis quidquam praesto est, quam ipsa sibi. De Trinitati. 14, 7.*) *Descartes* afterwards made this idea the starting point of all philosophy, when he declared that our knowledge of our own thought is the only fact which is absolutely certain and indubitable. It was due to the gradual spread of the Copernican theory of the universe, however, that the intellectualistic conception of the cognitive process, contained in the reflections of *St. Augustine* and in the Cartesian axiom (*cogito, ergo sum*), received such general recognition. Whoever accepted this theory, was forced to admit that the evidence of the senses, to the effect that the earth is at rest, and that the sun daily rises and sets, could no longer be defended against the overwhelming force of the Copernican discovery. Mathematics was an important factor in securing the supremacy of abstract thought over the senses as a source of knowledge. Especially was this the case in the sixteenth and seventeenth centuries during which arithmetic, unaided by objective presentations, became a more powerful agency in the advancement of knowledge than geometry, which always employs such aid. At that period no one thought of

finding the source of these indubitably certain mathematical judgments in sensuous intuition. It was universally believed that the reason draws these profound truths wholly from within itself, and furthermore that reason succeeds with such absolute certainty just because it avoids the illusory influence of phenomena.

The credit for making the first inquiry into the validity of this belief belongs to *Kant*. He formulates the problem thus: "How is pure mathematics possible?" But his answer is not of the purely intellectualistic order. *Kant* is convinced that the senses furnish the material of knowledge. By doing so they incite the understanding to the exercise of its native functions. Knowledge, however, does not exist until the matter which has been furnished by the senses is given form by the understanding. The understanding ascribes its own uniformity to nature, and thus becomes, according to *Kant's* famous expression, nature's law-giver. But *Kant* takes still another important step in advance. According to him the understanding is capable, by means of its fundamental concepts (categories), to project its constructions beyond its intuitional foundations, whereby "The thought of the object may still continue to have its true and beneficent effect upon the way in which the subject exercises his reason." (*Critique of Pure Reason*, 2 Ed., No. 27, III, 135 Hartenstein's Ed.) *Hegel* afterwards made such a sweeping use of the limited authority which *Kant* ascribed to reason, that the intellect is no longer merely nature's law-giver, but in fact the creator of

nature *Hegel* regards mind as the essence of the universe and our concepts, in their dialectical evolution, represent the cosmic process.

Here intellectualism attains its climax. The estrangement between reflective thought and its material elements, furnished by sense perception, is absolute. Accordingly it is no more than natural, that, recoiling from this extreme view, philosophy should become more sensualistic again.

Intellectualism is doubtless correct in asserting that every sense perception must be given form by our understanding in order to become real, serviceable knowledge. This function of thought which gives form and creates relations has, in the course of time, produced a variety of formulas and instruments of thought which have become, as it were, part of our nature. Such, among others, is the concept of *thing* with several distinctive qualities, or *substance* and *attribute*, and such, furthermore, is the concept of *cause*, which we cannot but apply to every event. It easily happens therefore that we should regard such concepts as these as an original possession of the understanding and believe them to be innate. The doctrine of innate primary forms or categories, however, always involves very much that is doubtful and contains elements which are quite incomprehensible. Genetic analysis of the formative function of the understanding must therefore take the place of such assumptions, in order thus to ascertain the origin of those forms as they arise in experience.

However, before entering upon the discussion of the problems arising in the genetic theory of knowledge, we must yet make brief reference to an offspring of the intellectualistic school which has been widely disseminated in every period and is at present again making increasing pretensions. We mean that search after mysterious sources of superior knowledge, which superficially dispenses with all observation called *Mysticism*.

25. MYSTICISM

Intellectualism, in the last analysis, rests upon the assumption that the soul, if it only knew how to maintain its freedom from bodily limitations, would be able to discover pure and unconditioned truth. This idea of the soul's renunciation of the corporeal, however, is a thought which is usually combined with religious notions, and it has been the occasion of profound religious agitations.

The *Orphic* sects, which spread over Greece after the sixth century B.C., with their theory of the transmigration of souls and their deep sense of the need of deliverance from the flesh, gave occasion for the elaboration of an esoteric philosophy. Their secret cults, or mysteries, gave rise to a variety of measures and mythical theories for the purpose of delivering the soul after death. Mysticism was developed into a philosophic system by the *Neoplatonists* and *Neopythagoreans*, who acquired an increasing influence in the Greek and Roman world from the first century A.D., onward. *Plotinus*, *Jamblicus*,

and *Proclus* are the best known exponents of this tendency. The middle ages gave rise to Christian mysticism, which finds abundant occasion to assume extraordinary sources of knowledge in the mystery of the Trinity, the immaculate conception, the firm belief in the immortality of the soul, and ascetic depreciation of the body. *Master Eckhart*, *Bertholdt von Regensberg*, *John Tauler* and *Jacob Boehme* developed these fanatical ideas and exerted a profound influence.

Mysticism continued its influence during the modern period, and even the illumination of the eighteenth century was unable to smother it. During the closing decades of last century it became intensely active again in the form of *spiritism* which has attracted a large number of adherents.

Mysticism, so far as it is philosophical, rests upon the belief that it is possible, under favorable circumstances, to penetrate, in pure spirit, delivered from every vestige of corporeality, into the very presence of God and apprehend the sublimest truths without the mediation of the body. The accomplishment of this generally involves a profound emotional agitation, an exaltation and fixation of psychical energy, such as is possible only in a state of ecstasy, in which everything earthly has been discarded and the subject has surrendered himself absolutely to Deity. The imagination, which has thus been intensified, is capable of conjuring up visions of the most fantastic sort. The medium believes in the reality of these phantasms and his devotees accept his interpretation.

A further thought of mysticism, which allies it with magic and witchcraft, is the belief that one can hold direct communication with spirits by means of the heightening of psychical energies and thus receive revelations of higher truths without the intervention of the senses. This kind of mysticism, which is at present peculiarly popular, is called *spiritualism*. It is generally believed that only certain persons (mediums) are capable of intercourse with spirits. The method employed involves a magnetically, or, more correctly, hypnotically induced sleep. Here, however, there is too much room for the most exaggerated imposture, and even noted scholars have become the dupes of pure jugglery.

The theory of reflection and feeling, expressed in mysticism, has exerted a profound influence upon epistemology and metaphysics, which has not as yet been sufficiently recognized by the writers of the history of philosophy. The yearning after fellowship with God, one of the dominant characteristics of mysticism, has made large contributions to the development of the monistic systems of thought. (See Section 28 ff). And the increased clearness of apprehension produced by this emotion, whether real or imagined, has resulted in the assumption of a third kind of knowledge, in addition to that which is received by sense perception and that which is obtained by the processes of the intellect. This has been regarded as a kind of spiritual vision and has therefore been called intuitive cognition. *Karl Joël* has shown the evidence of this influence of mysticism in the

earlier Ionian philosophy of nature, and in the philosophers of the Renaissance. It is even possible to show a strong mystical thread in *Spinoza*, and even in *Kant* and *Hegel*.

This fact is of vast importance for the psychology of cognition, because it shows that cognition is not an isolated faculty, but that it stands in the most intimate relation with the other psychical processes and is influenced by them. The theory of evolution has also given further confirmation to this view. It is becoming more and more evident that human knowledge is a part of human life and can only be clearly construed as such. The genetical-biologic theory of knowledge, which is explained in Section 27, rests upon this view. Several American philosophers have in recent years published similar theories and thus suggested a new conception of the cognitive process upon this basis, which they call *Pragmatism*. We shall describe this school before we proceed to the presentation of our theory which is so closely related to it.

26. PRAGMATISM

Several American philosophers, at the close of last century, starting with the assumption that the critical investigation of human cognition and the metaphysical speculations concerning the primary cause of things, have resulted in an estrangement between the real world and human life, resolved to change their point of view. They assumed that theoretical reflection really serves

the practical purpose of guiding human action and leading human life to a richer content. They accordingly directed their attention to this practical bearing of reflection. This gave rise to a new theory of knowledge to which the name *Pragmatism* was afterwards applied.

Charles Pierce is the author of this new method. In an article, published in 1878, on the subject, "How to make our ideas clear to ourselves," he showed that our judgments and convictions are really nothing more than rules of action.¹ Whenever we wish to ascertain clearly what is the real meaning and content of a given idea, we always try to show what effect it would have upon human action. There are no thought distinctions, no matter how subtle they may be, which are not conditioned by, or based upon, practical distinctions. Thoughts which show no practical bearings whatever are meaningless and amount to nothing more than an empty combination of words. An understanding of the practical consequences of a given thought is identical with the understanding of its complete and only meaning.

This is the fundamental principle from which the pragmatic method starts. Hitherto it has received a twofold application. Pragmatism has been engaged, first of all, in discarding such problems as have no prac-

¹ Pierce's article appeared in *The Popular Science Monthly* (January, 1878). It is most accessible in the French translation published in *Revue Philosophique* (Dec., 1878, and Jan., 1879). The word "Pragmatism" does not occur in the article. Cf. Jerusalem, in the *Deutscher Literaturzeitung*, 1908, No. 4, and Ludwig Stein, in *Archiv. f. Sys. Phil.*, 1908.

tical bearing on life. The first question with the pragmatist always is: What are the practical consequences of this solution of the problem, or of that solution? If it should appear that in either case we should have to do the same thing, then no problem exists. Such is the case, for example, in the matter of the reality or the ideality of the objective world. The idealist must treat the objective world in precisely the same manner as the realist. Hence the entire controversy is at once disposed of, because, for the pragmatist, it has no value and consequently no meaning. But the problem whether God is the Creator of the universe, or whether it came into being through purely material processes is of a different nature. Its bearing on life has profound significance. The universe holds far richer promises for me, if I can regard God as its Creator, than if it should be nothing more than a result of material force. The pragmatist therefore regards this as a problem worthy of reflection.

The other use to which the pragmatic method has been applied is the explanation of the cognitive process and the concept of truth. Pragmatism conceives reflection to be part and parcel of life. According to this conception, therefore, the truth of a judgment consists solely in the practical consequences which follow from it. A judgment is true when the measures it involves prove favorable to the interests of life. Pure, abstract truth, which is completely finished in the bare statement of the fact, does not exist, according to pragmatism, because

of the vital relation between thought and life. It is still less permissible to postulate an absolute truth which shall remain the same for all time and for all thinking beings. Truth always contains an active, directive principle. It is not eternal, but forever directed towards the future.

This new theory of the concept of truth destroys our firmly rooted habits of thought and hence it meets with strong opposition from various quarters. The mathematicians and the champions of formal logic are particularly opposed to the pragmatic conception of truth. Logicians and mathematicians maintain that there are absolute truths, which are discovered independently of all experience and which must be true for every possible experience. The controversy for and against pragmatism has consumed much space in English and American periodicals during the past decade. The new method was the subject of much lively debate at the Philosophical Congress which convened at Heidelberg in 1908. The specific views have not yet been clearly defined. The controversy will, however, necessitate a more thorough development of the central principle of pragmatism.

The evolutionary theory of the cognitive process, which shall engage us in the following section, would seem to indicate that pragmatism, with its activist theory of truth, is essentially correct. The interpretation of impressions expressed in every judgment always awaits verification. But the interval between interpretation and verification frequently varies, being either longer or shorter in proportion to the complexity of the conditions

of life. We interpret an impression and preserve the interpretation for future verification. We likewise learn to form our judgments on the basis of past experience. Knowledge is and forever remains "means and mediator," as *F. C. S. Schiller*, of Oxford, one of the most ardent advocates of pragmatism, asserted at Heidelberg. In the final analysis all judgment, and consequently science in general, aims at verification. *Ernst Mach* has expressed himself to the same effect.¹ However, the interval between interpretation and verification just noted, requires a formula which is at least similar to the traditional concept of abstract truth. Such a formula is necessary as a storageplace for the preservation of interpretations which have been previously consummated. The possibility of its realization must forever remain the criterion of truth, but much will be gained by defining the conditions of realization with greater precision. We shall have occasion presently to examine what formula is best adapted to this purpose. But pragmatism will have to concede the necessity of such a formula for the simple statement of facts.

The new method therefore is entirely correct so far as its central principle is concerned, but there is still great need of further elaboration in its application.

27. GENETIC AND BIOLOGICAL EPISTEMOLOGY

It is now generally agreed that knowledge does not originate through the senses alone or through thinking

¹ Ernst Mach, *Erkenntniss und Irrtum*, 2 Ed., p. 462.

alone, but that the coöperation of both these factors is always necessary. The question then arises: What division shall be made between these two sources of knowledge, and what is their relation to each other? *Kant* says, "Concepts without intuitions are empty, intuitions without concepts are blind," in which he certainly hits upon one part of the truth. Mere sense perceptions, without any contribution from the regulating understanding, are confused, chaotic. Mere abstract reasoning, operating with pure concepts, lacks a material or substantial foundation and contains no guarantee of real validity. If we should say: sense furnishes the matter, the understanding the form of knowledge, it would be, generally speaking, correct. This is, however, entirely too general to furnish any satisfactory explanation.

It devolves upon the genetic view to investigate the knowledge-process in its vital relation to the rest of psychic life. Epistemology dare not forcefully sever knowledge from its vital relationship with feeling and volition. In short, epistemology must be constructed upon a psychological basis.

Furthermore, it must not be forgotten that the impulse to acquire knowledge has its origin in the impulse for the preservation of life. Man must adapt himself to his environment. If he is to maintain himself in the midst of objects and forces which constitute his environment and eventually gain control over them, he must know which of them are essential to his welfare; he must

learn to understand and interpret their actual and potential energies. As a matter of fact each of the various sciences owes its origin to some practical necessity. Thus astronomy was developed in the interest of agriculture and navigation, and perhaps also for the purpose of a more exact division of time. Geometry arose as the art of surveying land, and arithmetic grew out of the needs of commerce. *Necessity has not only taught us to pray, but likewise to think.* But once the impulse for knowledge was awakened, it developed into something which is much broader and much more powerful than the requirements of immediate necessity. It eventually became a functional demand of our organism requiring exercise on its own account. In this way the desire for knowledge for its own sake arose. Theoretical wonder, which we have above designated as the beginning of philosophy, has likewise been evolved in this way. And we must not forget the biological origin of the knowledge-impulse when explaining these higher forms.

When it is said, furthermore, that the senses furnish the material, and the understanding the form of knowledge, an effort must be made to define this form more accurately. *Kant* discovered the primary forms of the understanding by a process of reflection upon the possible forms of judgment. But these forms are only artificial products of formal logic, and they must not be identified with judgments as they really take place in life. Hence it would appear more accurate to investigate the form of the judgment as it actually takes place

in ordinary thinking. Every cognition, a single sense-perception as well as the results of the most involved process of thought, must indeed be thought out and expressed in the form of a judgment.

The essential thing in every act of judgment is not indeed, as is commonly supposed, a combination of concepts or an association of ideas. As a matter of fact the judgment-process is present, as a comprehensive idea, before the judgment has arisen. The content of the idea then receives a definite formulation and articulation through the judgment. This takes place in such a way, that the process is referred to a given, self-active potential center and put forward as the potential expression of that center. The fragrant rose is present to consciousness as a complete whole before we form the judgment. In the judgment: "The rose is fragrant," fragrance is comprehended as the expression of the potential center, the rose. The potential center is the subject, its expression is the predicate.

This view becomes still plainer as we attempt to discover the psychologic law, the activity of which it is the manifestation. This process involves nothing more than a kind of *apperception* which is common to all men. By apperception we understand the formation and assimilation of an idea resulting from the arrangement of ideas which has become actual through attention. If we concentrate attention upon a certain object, we bring that object to the fixation-point of consciousness, and at the same time quicken all the ideas which have an affinity for

that object, either by similarity or contiguity. The ideas thus aroused, simultaneously reflect their light back upon the object, and the object itself thus receives a new setting.

In any given combination of ideas, those which are the most fully developed and, accordingly, the ones which predominate in that particular individual are naturally most readily quickened by attention. One and the same object will therefore quicken different groups of ideas in different persons, i.e., it will be apperceived in a different manner by each individual. The groups of ideas which are most easily excited we shall therefore call the *controlling mass of apperception*. Thus, e.g., the weary traveler sees in a forest only a place which offers restful shade, the painter, on the contrary, observes the color-shadings and tree-groupings, the carpenter would note the length and thickness of the trunks, the forester the foliage, the sportsman the evidences of game.

However variously the same objects may be perceived, there is, nevertheless a method of conception, a kind of apperception, in consequence of which every event affects all of us similarly. When a child tries to compress a solid object, it interprets the resistance which it experiences as proceeding from a will which is opposed to its purpose. The child ascribes a volitional impulse similar to its own to the objects of its environment, and construes observed processes as expressions of volition. A child apperceives every process in such a manner as to excite the activity of its dominant ideational disposi-

tion. But of all predispositions of this kind there is none that even approximately approaches the strength of our natural disposition to experience impulses of volition. This is constantly impressed upon us by the movements of our body. Of all our past experiences it is the volitional impulses that are most easily recalled, and it is reminiscences of this sort that form the dominant mass of apperception which the child brings to every process to which it directs its attention. The child regards every object which it perceives as an animated being, and it interprets everything which it observes in the object as proceeding from a volitional impulse originating within the object. A similar hylozoistic (animistic) and anthropomorphic tendency is found among primitive races. The flow of water, the blowing of the wind, the shining of the sun, of the moon and stars, all these processes are interpreted as expressions of the will of visible or invisible beings. We call this form of apperception which interprets all the processes of our environment as the expressions of the will of independent objects, *fundamental apperception*.

Kant, in the *Critique of Pure Reason* (Transcendental Deduction of the pure Concepts of the Understanding, Vol. 3, p. 114 ff. Hartenstein Ed.), repeatedly speaks of a "synthetic," "original" or "transcendental unity of apperception." He means by this that thought has the power to combine that which is intuited within the unit of self-consciousness. He says: "The 'I think' is implied in all our ideas." According to him, furthermore, this

fundamental presupposition of all knowledge is manifest in every act of judgment, and he expressly says, that "a judgment is nothing more than the way by which given cognitions are brought into the objective unity of apperception." (p. 121). According to *Kant*, therefore, every judgment involves transcendental apperception, and he regards this as the fundamental form and primary condition of all knowledge.¹

Following *Kant*, but at the same time differing from him in several important respects, we shall call this fundamental form and primary condition of all human knowledge, not transcendental, but *fundamental apperception*. Whilst, according to *Kant's* view, the unit of apperception is given before all experience, it is transcendental and hence *a priori*; in fundamental apperception, i.e., according to our view, an experience is present, but an experience which every human organism which has been evolved under the influence of environment and received impressions from it, necessarily must have and as a matter of fact does have. Whilst *Kant* regards the transcendental unity of apperception as nothing more than the formal condition of combining ideas and articulating them into self-consciousness, which it is impossible to define more exactly; we believe that we find the exactly defined, specifically human and personal

¹In my memorial address on *Kant*, (Vienna, 1904), p. 15 ff. I have endeavored to show that this contains a new and very important psychological discovery made by *Kant*. I have also adverted to it in my work: *Critical Idealism and Pure Logic*. (Vienna, 1905), p. 10.

formulation which must take place with every object before it can become a part of our mental property, in fundamental apperception. *Fundamental apperception translates the processes of our environment from the language of the universe into that of man.*

Let us then attempt a brief sketch of the evolution of human knowledge as it is construed under fundamental apperception.

The beginning of psychic life probably consists of a vague feeling of life which alternates between the opposite extremes of pleasure and pain. We must consider this feeling as the original, wholly undifferentiated reaction of consciousness upon the stimuli which result from the combined action of the organism and its environment. This feeling seems to be wholly without ideas of any kind and of a blurred, chaotic character, expressing itself in vital motions without any discernible purpose or direction. Our experience upon awaking from a deep sleep or swoon is similar to it. We are likewise justified in assuming a state of consciousness similar to this in new-born infants.

At this stage the pain states appear to be more clearly defined than those of pleasure. An infant is capable of experiencing a variety of pleasant and painful sensations even during the first days, indeed perhaps during the first hour of life. Psychic life begins at once to differentiate itself and to become more complex. The infant soul somehow seems to take account only of such things as are favorable or unfavorable to its development. The

processes of its environment exist for it only in so far as they bring pleasure or pain. The child's feeling-states are differentiated in proportion to the greater variety of impressions which force themselves upon it. As the interval between sleeping and crying lengthens and the child has leisure to receive impressions from its environment, the various states of pleasure and pain are gradually more clearly separated from each other. Cold produces a different kind of pain than hunger. A warm bath produces a feeling of pleasure which is clearly distinguished from the feeling which the child experiences for instance in receiving its nourishment. A new element thus enters the varying states of consciousness which the child experiences, in addition to the feeling of pleasure and pain. This new element is clearly distinguishable from the others, and it stands in much closer relation to the nature of the inciting cause than to the original feelings of pleasure and pain.

This element is the psychological factor which we call sensation. Sensation is above all else a definite change of a state of consciousness, which is just as clearly distinguished from the feelings of pleasure and pain as any other changes which accompany it.

Simple sensations never occur in the adult consciousness. Here we constantly find sensation complexes which are referred to external or internal stimuli, and these complexes consequently appear to us as real things or processes. Such complexes of sensation we call perceptions. It is the function of fundamental appercep-

tion to combine the various groups of sensation into single, uniform perceptions. The perceived thing is the potential center, and the sensations which it produces in us are its potential expressions or attributes.

Sense perceptions produce such dispositions in our organism, as enable the image of the object to arise in consciousness afterwards without any objective sensory stimulus. These reproduced sense perceptions are generally called ideas. The behavior of these ideas follows different laws, but they are chiefly determined by a kind of concentration of the organism, which we call attention. The instinct of self-preservation impels man, in his primitive state, above all to concentrate his attention upon those attributes of the objects of his environment which are of the greatest importance for the preservation of his life. This concentration of attention upon the attributes which are biologically significant gives rise to the so-called typical ideas which form the initial stage of the logical concepts to be developed later on. The origin of typical ideas is, therefore, well adapted to render the biological factor in the development of human knowledge, which gives rise to them, conspicuous. We learn, first of all, to combine similar things into a single idea by means of the fact that we take special note of the things which contribute to the preservation of our life, and thus acquire one of the most important instruments with which to arrange our experiences to our advantage, i.e., economically.

The evolution of language effects one of the most sig-

nificant advances in this respect. Linguistic sounds have evidently originated from the spontaneous utterances which express feeling. After frequent repetition of the same impressions the feeling element recedes, and the sounds then serve to express processes which take place in the environment of the speaker. These sounds are understood by our associates and afterwards used intentionally for the purpose of communicating with racial companions in the interest of mutual advantage. The most elementary linguistic sounds, generally monosyllable root-forms, express an entire process, without making any distinction between the object and its activity.

After these simple sounds no longer sufficed to communicate all that was desired, the effort to describe events by means of two such root sounds arose. Thus the original root was separated into subject and predicate, and the form of the proposition was evolved. This phase of development, which is frequently observed among children who are learning to talk, is of profound significance. Fundamental apperception therefore attained its adequate expression in the proposition. The form in which we are henceforth obliged to comprehend the world is thus definitely prescribed. The process which is thus expressed is perfectly formed, properly related to other processes, and at the same time objectified. We shall call fundamental apperception as it is thus developed by language, *the function of judgment*. The subject of the judgment is thus singled out as a center of energy which is wholly objective and the predicate sets forth the ex-

pression of that energy as it impresses itself in the process of its self-expression.

However, owing to the fact that a single sound no longer suffices to describe a process, there now arises a new and very significant phase of development. The subject of the judgment, "The rose is fragrant," i.e., the word "rose," now no longer expresses an entire process. It becomes, instead, the basis for every possible effect which may proceed from the idea of the rose. All objects possessing similar potencies are described by the same name and are thus comprehended under the single act of thought. The word finally bears the attributes and states which appertain to all objects which have the same name and thus the typical idea develops into the fixed concept which is always expressed by that word.

But the predicate splits off, as it were, the attributes, states and relations, from the subject to which they belong. This admits them to separate consideration. In this way attributes such as hard and soft, states such as motion and sleep, relations such as large and small, become distinct objects of thought, and are thus developed into the form of concepts. It is only after all this has taken place that it becomes possible to reduce the similarities and uniformities of nature from mere passing impressions to permanent possessions of human thought. The human mind, however, thus acquires new and better instruments of thought with which to organize experience advantageously, as well as to comprehend and control events. The function of judgment continually

evolves new forms of increasing complexity and richness, and discovers concise, simple and convenient formulas for more comprehensive thought-contents.

In addition to the value of language in the economy of thought we must call attention to still another phase of this matter. Owing to the fact that all who speak the same language express similar concepts with the same words and similar judgments with the same propositions, the element of social universality is combined with that of the economy of thought. The words and propositions which I use, in their accepted significance, are the products of the combined efforts of all who speak the same language. My assertions are at the same time conveyed, so far as their linguistic formulation is concerned, by the common product thus evolved. I presuppose a tacit agreement whenever I use propositions which are generally understood and generally accepted. A stock of universally accepted judgments is thus evolved from this common heritage of language. Every one is born into this estate and the social inheritance of language and thought exercises a profound influence on the development of the individual. This *social factor* in the development of epistemology requires brief consideration.

In addition to perceptual judgments, in which an event which has just been perceived is formed, articulated and objectified in the usual manner, conceptual judgments likewise arise in which the uniformities of events are so formulated that definite concepts are ascribed to definite attributes. The proposition: "The whale is a mammal"

asserts that the attributes which are common to all mammalia belong also to whales. It then becomes possible, upon the basis of this judgment, to assert that whales have warm red blood, breathe through lungs, give birth to living offspring, etc. But the original form of the judgment remains unchanged. The crude anthropomorphism found among primitive civilizations, as well as among children, which regards the whole environment as animated and every attribute of things as the effluence of volitional activity, cannot keep pace with advancing knowledge. But even the most abstract concept remains a kind of potential center for our thought, so that we conceive its attributes as the results of its activity.¹

The concept of truth, which is of such vast importance for epistemology, likewise arises from the function of judgment. Even *Plato* and *Aristotle* correctly held that the judgment is distinguished from the idea, or, as *Aristotle* expresses it, from "unassociated speech," by the fact that truth and falsehood can be predicated of judgments alone. The idea which I experience is really present, but as such it is neither true nor false. If, notwithstanding this fact, we should speak of correct or incorrect ideas, it is only by the license of an abbreviated form of expression. A correct idea is an idea which leads me to a correct judgment, a false idea is one that

¹ This conception is more fully elaborated and more completely established in my work, *Die Urteilsfunktion*, Vienna, 1895. For the psychological development of the process of knowledge, cf. my *Lehrbuch der Psychologie*, 3 Ed., (1905), (p. 33-147).

results from an incorrect or untrue judgment. The predicates true and false, however, do not apply to the decisions of feeling and will. It is only of judgments, which frequently precede our feelings and acts of will, and form an important element in these experiences, that we can predicate truth or falsehood. The expediency of the state of feeling and will thus conditioned very frequently depends upon the truth or untruth of such judgments.

Truth, therefore, only applies to the judgment. The problem which still remains is, how does this concept arise and what does it signify. On the basis of the view here outlined the answer is not very difficult. The judgment articulates and objectifies a given ideational content. This implies that the judgment is a result of the spontaneity and self-activity of our mind. It is the act by which the received impression acquires an interpretation. If we but recall that this act of spontaneity has its roots in the struggle for self-preservation, we shall readily understand that the interpretation, resulting from the impression, in its entire content and aim, has in view the determination of what measures the organism must employ in order to properly adapt its reaction to the impression. The interpretation is therefore correct at this stage of its evolution, whenever its consequences result in the favorable adaptation of means to ends; it is false, whenever it becomes the basis for erroneous means, i.e., such as are detrimental to the preservation of life. To speak more accurately, this means that the

relation between the interpretation and the actual status, which we later recognize as truth or falsehood, at first exists only in the form of a tendency of the organism to react. However, as civilization advances and the conditions of self-preservation become more complicated, as man is enabled to conceive of such higher ideals as can only be attained by means of a lengthy series of carefully chosen efforts, and is impelled to strive for their realization, the interval between the interpretation and the verification of impressions becomes longer (cf. above p. 102). We frequently make interpretations which we do not immediately verify. The reduction of such interpretations to language and written documents enables us to preserve the judgments for future verification. But, inasmuch as not every interpretation proves useful, selection becomes necessary. We search after the conditions of future utility, and thus give rise to the concept of truth. The truthfulness of a judgment is nothing more nor less than its practical value for the determination of the means necessary to human welfare. This activist element of the concept of truth, which constantly anticipates future activity, has not been recognized nor properly appreciated until quite recently. All abstract thought is provisional judgment directed towards future utility. Since human activity, however, is becoming more and more far-sighted and proposes ever higher destinies, abstract thinking interposes an ever lengthening interval between interpretation and utility. It is in this way that abstract thought and investigation attains a

relative independence, which often begets the impression that thought is a separate function, independent of life. Pure, abstract thought does, nevertheless, formulate rules and concepts which lead to new ways of stating the concept of truth.

There is one fact of social intercourse, however, which contributes much towards a clear understanding of the abstract concept of truth. I refer to the origin of negation, or the negative particle. Different persons very readily interpret identical facts in different ways. At the beginning of cultural development each interpretation at the same time contains the implication of certain practical measures. Whoever refuses to accept my interpretation, rejects the practical measures implied in that interpretation. This rejection is at first accompanied with an intense emotion which is expressed by a characteristic sound. With the frequent repetition of such rejections the emotion eventually vanishes and its corresponding sound, as negative particle, becomes a formal element of the judgment. In the case of every interpretation, i.e., in every judgment, I must reckon with the possibility of rejection. Whenever I maintain my original interpretation, notwithstanding rejection, my defense produces a clearer consciousness of the truth of the judgment.

Hence truth consists in a definite relation between the act of judgment and the event under consideration. We must now define the nature of this relation and the conditions under which it exists. We are accustomed to

say that truth consists in the *agreement* of a judgment with the process which gave rise to it. This would mean that the judgment simply follows the objective process, that is to say, copies it. This naive way of conceiving it, however, does not correspond to the present conception. We know that the judgment formulates and articulates the ideational content. Hence there is no longer any room to speak of agreement. We must rather say: a judgment is true, whenever the formulation and objectivation which it expresses, corresponds to the real process in such manner that predictions founded upon the given judgment are really verified. It follows from this that the judgment *corresponds* to the process which gave rise to it, that it is compatible with or adequate to it. The judgment must be a function of a real process in the sense that a change of objective fact results in a corresponding change of judgment, and that the consequences which result from the judgment retain their validity for the process.¹

The final verification of its presuppositions is the most important and most decisive criterion of the truth of a judgment. We shall call this the *objective criterion*. The convincing proof of the truth of a judgment does not lie in its so-called evidence¹ not in its necessity, but only in its agreement with the predictions which it involves. This is the only way that the universe

¹ On the evolution of the concept of truth cf. *Der kritische Idealismus* etc., p. 162 ff.

can irrefutably furnish demonstrative proof for our judgments.

Of course there are judgments which will not admit of such verification. Wherever we pass judgment concerning past events, or, inspired by the thirst for knowledge, transcend the bounds of experience, we must be satisfied with a criterion of truth which is less certain, but which still offers a sufficient guarantee to assure us that we have not entered upon paths of thought which are wholly unwarranted. Such a criterion is the acquiescence of contemporary thinkers. We shall call this the *intersubjective criterion*.

These two criteria furnish the standard by which we estimate the truthfulness of a judgment, even though we are not always conscious of it. In propounding a judgment, the verifications, involved in the predictions which have been previously realized in similar cases, recur to us in such a way that we assume it unnecessary to await the outcome. We often anticipate the acquiescence of our contemporaries in a similar manner. In all mathematical judgments, i.e., such as refer to quantity and number, we are firmly convinced, assuming of course that the judgments are made according to the known laws of mathematics, that our predictions based upon them must be realized, and that every thinker who understands the meaning of the judgment will acquiesce in the same. In consequence of this universal conviction of the correctness of certain judgments, many thinkers are of the opinion that there are certain judgments of

which we are unquestionably certain, antecedent to all experience, and without being required to await verification in experience. It is upon this supposed fact that *Plato* bases his argument for the preëxistence of the human soul, because it possesses knowledge which it could not have gained by experience in the present life. These intuitions are recollections from the time when the soul, as yet unmingled with the body, existed as an untainted, pure, divine being, in consequence of which it was able to attain correct intuitions into the essence of things. This thought appears again, in a somewhat less mystical form, in the philosophers of the seventeenth and eighteenth centuries, when they speak of innate ideas, original intuitions, and ascribe to reason the capacity of discovering truth by its own powers. *Kant* examines this faculty in his *Critique of Pure Reason*. In the first part of this work he attempts to answer the question: "How is pure mathematics possible?" He wishes to show by what original possession of our intuitional faculty it is possible for us to form judgments which contain no empirical elements, and why these transcendental judgments must be valid for every conceivable experience.

The biological theory of the knowledge process, and especially of the concept of truth, however, shows that the assumption of such an innate possession of original intuitions of this nature, is not only superfluous but even wholly untenable. In every case in which we speak of evidence, or of logical necessity, this evidence and log-

ical necessity rest upon previous experiences. The human mind has learned, during the course of its evolution, to arrange its experiences economically. It has discovered means by which to turn the experiences of preceding generations to good account and to reduce them to the simplest possible formulas. Inasmuch, therefore, as each succeeding generation builds farther upon the basis of what has been previously attained, it is spared the trouble of repeating the task from the beginning. Children are taught, even in the public schools, how to use the traditional instruments of thought, so that we naturally come to regard the thought-forms with which we have been familiar from childhood as a native possession of the human mind, whilst, as a matter of fact, they are really nothing more nor less than the laboriously accumulated legacy which has been handed down from past generations.

Should any one undertake an analytical description of the process of knowledge as it actually takes place to-day in the consciousness of adults, he would indeed soon come upon elementary processes concerning which the individual would no longer be in position to show that they originate in his own experience. Thus again the appearance of an *a priori*, a native possession of concepts and thought-forms, would arise. But it is just for this very reason that the analytical, descriptive method is inadequate to the investigation of psychological facts and laws. The real facts of the situation are only discovered by the aid of the genetic and biologic method of explanation.

This method of explanation therefore justifies us in saying: *There is no a priori knowledge*. The knowledge forms which are common to all men evolve from the coöperation of the organism and its environment. And we must regard *fundamental apperception*, and the *function of judgment* which follows from it, as *the most important and the most fundamental of these forms*. The thought-forms or categories of *substantiality* and *causality*, which *Kant* ascribes to the innate fundamental concepts of the understanding, are likewise evolved by this process.

The concept of substance, by which we understand the permanent, unchangeable reality behind the ever varying phenomena, exists already in prototype in sense-perception, where complexes of sensations are combined into unified things by the faculty of fundamental apperception. In our conception of a "thing" we distinguish it from its attributes and regard it as that which remains and preserves its identity throughout all changes of states and relations. The function of judgment likewise creates something permanent in the subject which is regarded as the source of the activities issuing from it. If we also learn to distinguish between matter and form in things, then again, matter is that which throughout all change of form and motion still remains and preserves its identity. Thus the concept of an unchangeable, permanent being, which is the basis of all change and forever remains self-identical, is formed. Since every subject includes within itself the concept of sub-

stance, we readily see that it must recur in every conception of reality. This is the reason why some regard it as an innate, fundamental form of the human understanding. We find that the concept of substance is in use in philosophical systems as well as in the theories of natural science. Physics and Chemistry for a long time regarded atoms as the ultimate unchangeable substances, as the permanent substrata of all change. This is still the case to a considerable extent even to-day. In biology the cells or parts of cells (*neurone, plasome*) are regarded as the ultimate organic substances. In recent years the attempt has indeed been made to eliminate the concept of substance from the study of nature entirely. We shall return to this attempt farther on, but must here remark that this elimination can never be completely and effectually carried out by our powers of thought.

The thought-form of causality is given immediately, in our acts of will on the one hand, and in every act of judgment on the other. If we transform the perception of a blooming tree into the judgment, "the tree blooms," then we conceive the tree as a potential center which causes the blooming from within itself. In our own acts of will we experience the transition from a conclusion of will to the contraction of muscle in a single unbroken succession. Among the events which transpire in our environment we frequently perceive only a single member of a series. We, however, supply the missing units after the analogy of our acts of will and,

in consequence of fundamental apperception, conceive series of events which ordinarily follow each other, as if a similar unbroken succession had likewise taken place in them. We must construe every process which we perceive, or infer, as caused by that which preceded it. We are unable to eliminate the causal connection from our thought. The very act of judging postulates potential centers which are active, and the relation of subject and predicate remains the prototype for every causal connection.

David Hume was the first to concern himself with the psychology and criticism of the causal concept. He thought he could prove that immediate experience only gives regular succession and that we have interjected the idea of causality into the world without warrant. *Kant*, for whom this criticism, as he himself says, "broke the silence of his dogmatic slumbers," afterwards thought that he had discovered in causality a primitive form of the understanding, which we must necessarily bring to the matter of sensation which affects us objectively, in order to make experience possible. Our method of explanation shows that causality is necessarily evolved from the function of judgment and that, like the latter, it is a product of the interaction between the organism and its environment. It follows therefore that causality does not arise from the subjective factor of knowledge alone, the objective factor likewise coöperates with it. There is rational ground therefore for assuming objective causes. There has been considerable tendency

recently to return to *Hume*. It is assumed with him, that experience furnishes us with nothing more than the succession of events and that it never reveals their causal connection. And, it is insisted, that mere succession is clearly distinct from causal connection. Besides mere temporal succession there exists also an internal coherence between events which regularly succeed each other, which appears similar to the connection which we invariably experience in acts of will between the volitional impulse and muscular contraction. Whenever we find such connection, or have good reason to assume it, there we postulate causal connection; wherever it is lacking, temporal succession is all that we are justified in asserting. Should the appearance of a comet precede a destructive war, the understanding, enlightened by experience, can never regard the comet as the potential center of which the war is the expression. This is simply a case of temporal succession. If, on the contrary, a dose of quinine is followed by a reduced bodily temperature in fever, we are justified, on the basis of repeated experiences, to assume that administering quinine introduces a physiological process which brings about a reduction of bodily temperature.

The concepts of number are likewise evolved from the function of judgment. Groups of similar objects suggest the repetition of the same denominating judgment. Members arranged in pairs may have furnished the first occasion for this. "Hand, Hand," "Eye, Eye," "Foot, Foot." Repetition was certainly originally accompanied

by gestures and the number of repetitions determined by the number of objects. Whoever, at the sight of a group of three trees should propound the judgment: "Tree, Tree, Tree," would be stopped at the third repetition. The occasion for further continued repetition is wanting, i.e., the required object is not present. The last repetition may have been attended by a sound from which the corresponding numeral was gradually evolved. This would then be used for every group of objects which occasioned the same number of repetitions, and thus the first numeral concepts may have arisen. Each numeral then becomes an aggregate of units, which, upon closer examination, shows definite relations to these units, and to other numerals. These relations are the same in all groups of objects and must therefore be valid for all objects. Thus the synthesizing function of thought in cooperation with language effected the invention of an exceedingly important thought-instrument, which is likewise of a high degree of generality and exceedingly useful for the economic arrangement of experience.

Thus the cognitive forms and thought-instruments, with which we operate and which form our mental equipment, are gradually evolved from the function of judgment. Fundamental apperception, however, always remains active, and even the most complicated judgments always effect the formulation and objectivation of given contents in the same manner. We acquire mental possession of the impressions produced by our environment

by translating them from the language of the universe into that of man. The value of this acquisition consists in the fact that we are thus enabled to so control the forces of nature as to make them serve us in preserving our life under difficult conditions and in giving it ever increasing significance. We may now sum up the result of the interaction between the human organism and its environment, as follows: *Knowledge of the world by formulation, and formulation of the world by knowledge.*

Truth, which is usually regarded as the goal towards which all knowledge strives, is, as we have seen, a definite relation between the act of judgment and the process formulated and objectified by it. This relation naturally exists only in the consciousness of thinking beings and we see it most clearly, when we compare the judgments which have been handed down to us with the processes which they describe. This testing of the judgments of others brings psychical phenomena to light, which are of vast significance for the evolution of knowledge. If we would understand a judgment which we have heard or read, we must combine anew the ideational content previously formulated and articulated by that judgment. Inasmuch as the judgment which has been formed independently is analytic, the judgment which has been handed down requires a process of synthesis. In this act of combining and reuniting we frequently encounter difficulties and obstacles. So long as we fail to construe the judgment expressed by another into a uniform idea, we do not understand what we have heard. We then

seek enlightenment by inquiry.¹ But it also frequently happens that we easily succeed in following the idea expressed in a given judgment, but that we find the interpretation indicated by the given judgment incorrect. In this case we understand that which we have heard or read quite well but we do not believe it. It is in this way that the psychological phenomenon of *faith*, or, as it is more generally expressed, *belief*, arises.

The view has recently been frequently expressed that the essence of the function of judgment really lies in the act of belief. The English logician, *John Stuart Mill*, says: "To judge and to believe a judgment is one and the same thing." But this view is untenable simply because the object believed in can only be a judgment, since, e.g., a bare idea is neither true nor false it follows that its truth cannot be affirmed or believed. The only point of importance in this view is this, namely, that every act of judgment contains an objective element. If then, belief is not identical with judgment, it becomes necessary to investigate the nature of this phenomenon and discover its different forms and the various degrees of its intensity.

Both knowledge and faith are characterized by the phenomenon of belief. The difference between these two experiences is not one of antithetical opposition, as is frequently held, but only of degree. Knowledge is the highest degree of belief which we are able to attain. We use the term knowledge whenever both the objec-

¹ Cf. Jerusalem, *Urteilsfunktion*. 169 ff.

tive and the intersubjective criteria of the truth of a judgment are present (see above p. 119); whenever the agreement of its predictions have been attested by experience, and whenever the acquiescence of our contemporaries appears self-evident to us. But when this is not the case, and we are still inclined to regard a given judgment as true, we then speak of conviction, faith. It is meaningless to speak of degrees of intensity in the case of knowledge, because knowledge is the highest degree of belief which therefore admits of no increase. But faith and conviction are experienced in different degrees of intensity. We can believe with a greater or less degree of firmness, or be more or less convinced.

If we inquire into the psychological nature of faith and conviction, the fact that both are graduated, as respects their intensity, already leads to the presumption that their determining elements are not thought processes, but feelings. Reflection upon the fact that the antithesis of faith, doubt, is indeed acknowledged by each of us to be a state of feeling, strengthens this view.

If we also inquire into the conditions under which these feelings arise, it is not difficult to find an answer. The feeling of faith or conviction arises whenever the agreement of a judgment with the total of our previous experiences, i.e., with our world-theory, becomes clear to our consciousness. We withhold belief in a judgment whenever it contradicts all our previous experiences, and whenever we are unable to reconcile it with our world-theory. The severest mental struggles frequently result

from such new judgments as confront us in the unfolding of experience and the natural advance of knowledge. Thus for a long time people refused to believe the teachings of *Copernicus*, because they were accustomed to regard the Bible as final authority even in scientific problems.¹

It must naturally happen during the course of the development of knowledge that certain judgments once generally accepted should eventually be found incorrect. But as a general thing such judgments have been reduced to concepts before this happens and their use has become a matter of custom. If, however, the judgments are no longer true, the concepts can no longer be regarded as really existing potential centers. When, e.g., during the first centuries of the Christian era, the heathen were converted to Christianity, the deities which they previously worshiped lost the reality which was once ascribed to them. The chemists of the seventeenth and eighteenth centuries firmly believed in the reality of phlogiston, a substance which was supposed to be found in all combustible matter. When *Lavoisier* afterwards explained the process of combustion correctly, this concept lost its validity, phlogiston its reality. A thought-instrument analogous to the concept of truth is thus formulated, which expresses the relation of the concept to reality. We call this thought-instrument the *existential concept*. This view has also been much dis-

¹ For a further development of this thought see: *Urteilsfunktion*, 198 ff.; *Lehrbuch der Psychologie*. 4 Ed., 123 ff.

cussed recently and has given occasion to much controversy. We conceive existence as a predicate, which expresses the efficiency of its subject. If we say: God exists, it implies that God is not the creature of human imagination, but that He exists independently of our belief in Him. He is an independent potential center, which we know from His works. The tyrant Dionysius in Schiller's *Bürgerschaft* did not believe that there was any such thing as self-sacrificing loyalty. But he afterwards experiences an incident which he cannot but interpret as the result of even just such loyalty as he had previously doubted. Whereupon, convinced, he exclaims: "Loyalty is not an idle fancy after all." In the German even the linguistic form suggests the vital relation of existence and efficiency. That which exists is called "the efficient" (*das Wirkliche*).

Our method of genetic and biological explanation has shown that human knowledge issues from the impulse of self-preservation. Its development has enriched the life, both of the individual and of the race. Our centralized organization, concerning which physiological and psychological investigation is constantly furnishing us more exact information, gives our cognitions their universal form. We have discovered this form in fundamental apperception, and we have learned to understand it better in the resulting function of judgment. All human cognition consists of an appropriation of reality, by means of an articulation and objectivation which is conditioned by our centralized organization. But in order to give

this entire process a rational explanation, we must presuppose, in accordance with common sense and on the basis of critical realism, the independent existence of objective reality. But what is this reality? This problem belongs to the second division of the philosophy of cognition. This is at once the oldest and likewise the chief division of philosophy. We mean the doctrine of Being, which is generally called *Metaphysics* or *Ontology*.

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FOURTH DIVISION

METAPHYSICS OR ONTOLOGY

28. THE ONTOLOGICAL PROBLEM

The ontological problem is very closely related to the problems of knowledge. The inquiry into our capacity for knowledge leads at once to the further inquiry: What constitutes being? What is the essence of reality?

Owing to the fact that the senses and human reflection are first directed to the objective world to which we must adapt ourselves in order to live, the latter inquiry arose historically earlier than the problem of knowledge. Man begins to reflect on himself much later than upon things. It is for this reason that the problem concerning the nature of being has meaning and interest for those who have not yet risen above the plane of naive realism in the theory of knowledge.

The unreflective mind answers the question, What is reality? by saying it consists of the objects of my environment, the things which I see, hear, and touch. The naive idea of being therefore consists of a confused mass of individual things. Nevertheless the distinction between the animate and the inanimate excites attention even on the plane of a practical world theory, long before

there is any attempt at abstract speculation. Inanimate things remain motionless so long as they are undisturbed from without, living things move upon their own initiative and in a manner which shows purposeful adaptation. Something must therefore inhabit living beings which is capable of producing this motion. During sleep this inner being departs from the body temporarily, at death its departure is permanent. This being is represented as breath-like. It has the same form as its body but it is intangible, in a certain sense immaterial. This inner being is the soul, which is regarded as a distinct entity, entirely different from the body. Belief in the existence of the soul, as ethnology has conclusively shown, is common to the whole human race. Nowhere has a people been found who are without this faith, which results naturally and almost necessarily from the phenomena of death and of dreams.

The universe is thus divided, even upon this plane of thought, into two large divisions which are entirely different from each other; into the kingdom of bodies, and the kingdom of souls. This separation is of course not made as yet with logical precision. The dead body, or at least the body of one who has recently died, is still considered as capable of sensation and as possessing attributes which we regard as psychical. When Achilles drags the slain Hector about the city, he wishes to torment his enemy in this way; and when the soul of Patroclus mourns because it must relinquish so much manly courage and youthful vigor, the body is even

regarded as possessing these attributes. Generally speaking, at this stage of development, the body is looked upon as the substrate of personality whilst the soul is regarded as a being which is entirely distinct from it. On the other hand the soul possesses form, occasionally becomes visible, and yet is at the same time intangible, incorporeal, but not in the strict sense immaterial.

Philosophical speculation is, however, not content with a conception which is so vague and ill-defined. It is obliged, in recognition of the all-pervasive reign of law and the uniform correlation of things, to conceive and explain the struggle involved in the process of becoming, the World-all, under a single uniform principle.

The doctrine, that a single principle is sufficient for the explanation of the universe, that all existence is by nature uniform and similar, is called *Monism*.

The theory, moreover, which assumes two dissimilar substances or essences is called *Dualism*, and the doctrine according to which there are more than two original substances is called *Pluralism*.

The conception of the unreflective mind may be described as vague Dualism. Monism on the other hand may be of various kinds. It may be claimed that only the corporeal exists, that there is nothing but matter and that all mind must be looked upon as a function matter, or even as something material. This tendency is called *Materialism*.

But it may also be claimed that real existence tains to mind alone, whilst everything materi'

only as idea, and hence must be considered only as the phenomenal form of mind. This is the theory of *Spiritualism*, which is also frequently called *Idealism*.

Besides these there are still other forms of Monism, frequently very complex, which, however, by disregarding minor distinctions, may be referred to two types. One form of Monism assumes a kind of original substance, which in itself is neither matter nor mind, but contains both of these within itself either as irradiations, attributes, or in some other form. This original substance, which is construed as self-caused (*causa sui*), frequently also as Deity, either remains unchangeably the same, or incessantly unfolds new forms. We shall call this world-theory, which has famous representatives, the *Monism of Substance*.

There is another kind of Monistic thought, which is radically different from the preceding, and, taken strictly, does not really claim to be a world-theory. Several recent investigators have attempted to annul the distinction between the physical and the psychical by reducing everything to experience. Experience shall be reduced to its elements and its functional relations, and science shall concern itself only with the economics of experience. Thus the concept of energy, or the still more general concept of becoming, is substituted for that of substance. Inasmuch as the quantity of energy is constant and its forms admit of unlimited transformation, the universe is conceived as an orderly process governed by uniform law. We shall call this

world-view, which is rather complex, and difficult to understand, the *Monism of Becoming*.

The theory on the other hand which approaches more closely to that of the unreflective mind, as against these monistic conceptions, assumes two distinct essences, matter and mind. This dualism must of course be distinguished from that of naive thought. Its logical contradictions must be removed and the reciprocal relation between mind and matter must be construed so as to harmonize with the facts.

The return to the viewpoint of the unreflective mind has in recent years been carried even farther than this. Several representatives of the pragmatic tendency, described above, hold that the universe as given in experience is a manifold, and advocate *Pluralism*. The unity of the world, according to this school, of which *William James* is the most noted representative, is conceived as a destiny to be realized, a given task, but not its beginning, not the logical starting point.

Each one of these several thought-tendencies will require separate treatment.

§ 29. MATERIALISM

At the beginning of his *History of Materialism*, *Lange* says, "Materialism is as old as philosophy, but no older." He thus summarily rejects the wide-spread but wholly erroneous view, that materialism is the theory of the naive understanding. Materialism is much rather a metaphysical hypothesis, i.e., a transcendental theory,

which attempts a rational and coherent explanation of the world-process.

The first efforts of the Greek philosophers to interpret the universe are decidedly materialistic. They search for an original substance which is the source of all things. Some claim to have discovered it in water, others in fire, still others in air. These theories offer no explanation of mental life because mind has not yet become a subject of philosophic reflection. *Empedocles*, the author of the doctrine of the four elements, and *Anaxagoras* (both about 450 B.C.), were the first to make use of the principle of mind for the explanation of the universe. The former postulates love and hate, the latter a regulating mind, as the governing principles. Mind and matter have been contending, as it were, for world-control ever since that day, and during the ages philosophy has ascribed it now to one, now to the other, and again to both in common.

The Atomism of *Leucippus* and *Democritus*, as well as the epistemology of the Stoics is decidedly materialistic. Owing to the supremacy of theology, philosophy is dualistic during the middle ages and at the beginning of the modern period. *Descartes* has given dualism its most accurate philosophical expression.

In the eighteenth century the French physician *Lametric* (1709-1751) advocated an unqualified materialism in his book *L'homme-machine* (man considered as a machine) and explained all thought as a result of physical causes. *Baron Holbach* (died 1789) afterwards

undertook a detailed verification of materialism in his *System de la nature*. His chief purpose was to controvert religious prejudices.

Materialism fell into disfavor for a time through the influence of the idealistic systems of *Kant, Fichte, Schelling* and *Hegel*, only to revive again after the decline of Hegelianism. *Vogt, Moleschott* and *Buechner* vigorously defended the materialistic world-theory. *Buechner's* book *Force and Matter* which has appeared in many editions, has contributed most largely to the spread of this doctrine. The progress which has been made in the investigation of the physiology of the senses and in our knowledge of the brain have given a mighty impulse in the same direction. In recent decades materialism has again lost influence in scientific circles, but it is still quite widespread among the cultured laity. We must now examine the most important assumptions of materialism and study the arguments which are made in its defense.

(Materialism seeks) first of all (to prove, that everything, which we call a psychical process, and which we experience as such in our consciousness, is really nothing more than the function of our organs, particularly the brain.) The real essence of a psychical process, that is of a thought, an emotion, or an act of volition can only be known after the corresponding brain-process has been examined. (Psychology, according to materialism, is nothing more than physiology of the brain.) Materialism is especially anxious to prove that the assumption of a psychical substance, distinct and separate from the body,

is unscientific and contradictory to all experience. The most important arguments adduced in proof of this claim, are the following:

1. *The Methodological Argument:* The assumption of an immaterial psychical substance which is persistent, independent and distinct from the body, is prescientific and unscientific. Whoever holds such view is still on the level of the nature-peoples, who conceive every process as the act of an invisible demon. (Experience reveals nothing more than the body and its organs. Everything which this organism does, and which transpires within it, must be conceived as the function of its organs. The assumption of a psychical substance is a metaphysical dogma which is at once superfluous and untenable, and which exact science must eliminate entirely.)

2. *The Mechanical Argument:* The natural science theory of world-processes has postulated the law that the sum of potential force, or energy present in the universe can neither be increased nor diminished, but always remains constant, and finds this law verified. All becoming consists only of the transmutation of energy into different forms. Thus motion is transformed into heat, heat into motion; the electric current, when conducted through water, produces chemical results, and the presupposition that no new creation of energy ever takes place simplifies the whole mechanism of the universe. (If, however, we assume a psychical substance which is distinct from the body and which causes the muscles to contract and produce motion through its own—not

mechanical—initiative, it involves an increase of existing energy, which implies the creation of new force.) This assumption contradicts the principle of the conservation of energy which science has so often verified and it is therefore to be rejected as unscientific.

3. *The Cosmological Argument:* There was a time when our earth was a glowing gaseous nebula. At that time organic life could not have existed upon it. There could then have been no human beings and hence no mental activity. It was only after the earth had sufficiently cooled off, and the conditions for the origin of organic life were given, that plant and animal life came into being, from which man also was evolved at a later stage. Hence (mental life came into existence with organic life and is limited to the presence of its physiological conditions. There is no meaning therefore in assuming mind as something distinct from the organism, because its origin is connected with the organism and they will certainly perish together.)

These arguments taken together have considerable force. They are at least persuasive. It is not a matter of surprise therefore that in wide circles materialism is considered as the only possible scientific world-theory.

First of all, then, as respects the methodological arguments against the assumption of a psychical substance, modern psychology must concur with materialism, but on quite different grounds. At any rate experience never reveals any psychical substance distinct from the psychical processes, which must be regarded as the sub-

strate of our thinking, feeling, and willing. It is characteristic of psychical processes that they always appear to us only as occurrences, as effects in which there is no room for a substantial substrate. If, however, in spite of this fact we speak of a soul or mind, our authority for this mode of speech really lies in what we have previously described as fundamental apperception. The function of judgment, once evolved, can only appropriate a thought-content in the form of subject and predicate. So long as psychology uses this soul-concept in the same manner as the physicist speaks of magnetism and electricity, where magnetic and electric phenomena are most certainly all that is really given, so long as the soul is only regarded as the subject of psychical processes and is not considered as a self-existent substance, this form of expression cannot be called unscientific. (As soon, however, as we assume a psychical substance apart from the body, having independent existence and even continuing to exist after death, we are then going beyond the evidence given in psychical experience.)

Every substance, however, no matter how thoroughly everything material is eliminated from it, is still always represented to the mind under a material aspect. Everything which persists must, by the very necessity of our ways of thinking, occupy space and hence be material. The assumption of a soul-substance, which materialism so strenuously, and indeed so justly rejects, therefore finally leads to materialism. The only way to keep in harmony with the facts, is to confine our judgments to

the psychical events, and never assume a psychical entity. Such an event, which is at the same time without substrate, is the only thing that is really essentially different from all matter.

Strict scientific method, which aims to confine itself to the description of facts, teaches us that there is something given in our ordinary experiences as well as in our most profound emotions, which is essentially distinct from everything perceivable by sense, from everything material, indeed utterly incomparable with it. The scientific method to which materialism appeals accordingly decides against this world-theory.

The educated laity as well as the majority of natural scientists regard the mechanical argument as the most convincing. Neither is it a very simple matter to expose its utter untenability. (In its refutation reference has been made to the fact that psychical interaction with the body does not involve a creation of new force, but that it only discharges potential energy already present.) The term discharge, as used in physics, means that a small quantity of energy effects the release of a much greater quantity of energy of a different form, as e.g., when by the introduction of a burning match a barrel of powder is exploded. All stimuli which affect the body and produce sensations are discharging processes, because the physiological effect is always much greater than the physical cause. But even if it requires only a minimal quantity of energy to effect great results, it is not even permissible to treat this minimal quantity as nothing.

It cannot be reduced to zero. And if psychical intervention must be conceived as the application of physical energy, then indeed materialism is right, and the question whether the energy-equivalent of the psychical process is great or small is of no consequence whatever. The method therefore which construes psychical interaction as a mere discharge serves rather to strengthen the mechanical argument than to refute it. Notwithstanding this, however, the argument is wholly untenable. The application and validity of the principle of the conservation of energy is limited to physical and chemical processes. There are indeed noted physicists, who refuse to grant the unqualified validity of this principle even within this sphere. But this law is utterly inadequate for the explanation of vital processes. The centralized organization of all organic beings, the remarkable adaptation of all the parts to a common purpose, all this cannot be explained in physico-chemical terms. Even the purely biological evolution of organisms reveals constant creative activity. And when we contemplate the mental process in its evolution hitherto, we are obliged, with *Wundt*, to postulate an increase of psychic energy, whilst the attempt to apply the principle of the conservation of energy to mental development leaves some of the most evident facts of experience unexplained.

(As a matter of fact, the mechanical argument offered by the materialists, when brought to the light, is not an argument, but merely a presupposition.) (It is only by assuming) from the start that every process, i.e., vital as

well as psychical, can be explained and described according to the physico-chemical laws, (that this protest of the materialists against the violation of the principle of the conservation of energy can have any meaning.) But if we are guided by the facts, rather than by a definite theory, we must concede that the principle of the constancy of energy contributes absolutely nothing toward simplifying and explaining what really takes place in the sphere of the organic and psychical. The facts which have been established at this point, as well as the present stage of mental evolution, much rather require an entirely different principle of explanation. As a matter of fact this is conceded by noted scientists. As *Wundt* has shown, there is a kind of creative synthesis active here, whose nature and governing principle still require more careful investigation. The mechanical argument loses its force the moment we relinquish the materialist presupposition and abide by the most unassailable facts of our own experience.

The cosmological argument deals with hypotheses which belong to a realm in which verification is exceedingly difficult. The genesis and the destiny of mental life are never given in experience. Even if we can demonstrate that our experience of psychic life demands certain physical conditions, it does not by any means follow that these are the only conditions under which it is possible. (One thing, however, is certain, namely, that psychical life, just as life in general, follows its own peculiar laws which cannot be derived from the laws of

inorganic matter.) This is a distinction which it will be impossible to overcome as long as the universe, as we know it at present, endures or shall continue to endure. Whether there shall some day be a universe without psychical life, or whether such a universe is possible, is a matter which transcends our powers of knowledge.

Hence all these arguments do not in any wise affect the fact that the psychical processes which we experience, are entirely different from everything material. The thorough analysis of this problem by *Henri Bergson* has contributed much towards a better comprehension and fuller appreciation of the radical distinction existing between these groups of phenomena in all its profound depth. Any one who has really experienced the psychical in its genuine immediacy and sublimity can never be satisfied with materialism.

Materialism has done splendid service in the development of the intellect and in shaping tendencies. It has given us a better understanding of the intimate relation between the brain and the soul and inspired important investigations into the particular facts of this relation. Materialism still continues to be of considerable importance as a methodic and a heuristic (guiding to the discovery of new facts) principle, but as a world-theory it fails to explain a large part of experience. As the idealist is helpless in the presence of the consciousness of others, so is the materialist in the presence of his own, and yet, neither of them is able to eliminate these phenomena which they are unable to explain.)

30. SPIRITUALISM

Spiritualism, or the doctrine that the true nature of things, behind all phenomena, is spiritual originated through epistemological intellectualism. If we are unable to know the true nature of things by the senses, but only by abstract thought, it must follow that this nature itself is spiritual. *Plato* was the first to make this inference deliberately. He believed that he had discovered ultimate reality in the *prototypes*, or *ideas*, which are not perceptible to the senses. *Plato's* theory has had a more powerful effect than is generally appreciated. Its influence continues even to the present day. If we should wish to characterize our own age by its dominant ideas we should have to call ourselves *Platonists*. The Neoplatonic thinkers of the Roman period, especially *Plotinus*, developed this doctrine in the direction of mysticism.

The middle ages are thoroughly dualistic. But at the beginning of the modern period, when *Descartes* made consciousness the criterion of certainty, spiritualism revived again, to find in *Leibnitz* one of its most important exponents. The monads of *Leibnitz* are spiritual entities and, according to his theory, they constitute the world. The English philosopher, *Berkeley*, who is the founder of Critical Idealism (see above p. 81) is, strictly speaking, a spiritualist, in that he asserts that only minds exist, and the world must be considered as the content of their consciousness.

In our own day, *William Wundt* has founded a spiritualistic metaphysics by construing the content of reality

as a multiplicity of the individual volitional activities which are of a spiritual nature. *Hermann Lotze* and *Theodore Fechner* also believed that spiritualism furnished the most satisfactory solution of the ontological problem. *Lotze* conceives matter and mind as the phenomenal forms of an Absolute which is predominantly spiritual, whilst *Fechner* assumes a universal soul and hence even explains the material atoms, in their ultimate analysis, as spiritually constituted.

Finally also *Schopenhauer* and *Jacob Frohschammer*, the former regarding the will, the latter the imagination as the ultimate and real essence of things, are also to be regarded as spiritualists. However, when modern Spiritism, with its mystical tendencies described above, and whose method of operation consists of jugglery rather than argument, assumes the respectable name of spiritualism, it must be rejected as inadmissible.

Rudolf Eucken in Germany and *Josiah Royce* in America are at present vigorously defending a spiritualism which is characterized by a decidedly religious trend. *Eucken* is emphatic in his demand that we should rise to the acceptance of a real psychical life by severe self inspection, in which he sees the true life, the "self-fellowship" of life. *Eucken* regards this psychical life, not as the product of the combined psychical effort of the human race, but as something transcendent, something divine. *Josiah Royce* is likewise convinced that true reality is spiritual in its nature, and that the ultimate ground of things is an eternal, divine world-order. The philosophy

of *Royce* acquires peculiar significance from the fact that he strongly emphasizes the social factor in the life of the individual, and from this constant interaction of minds infers the existence of an eternal, divine being which is spiritual in its nature.

Spiritualism is closely related to critical idealism. Both tendencies regard the real nature of the world as spiritual. The essential distinction lies in the fact that critical idealism rejects every step beyond experience, i.e., all metaphysics. It bases its claims on the fact that it accepts only what is given in experience, whilst spiritualism, professedly and by intention, is metaphysics and as such transcends immediate experience. To critical idealism the world is the content of consciousness, to spiritualism it is the absolute spiritual reality independent of the knowing subject.

Spiritualism, properly understood, is simply the philosophical development of the animism of Nature-peoples. Primitive man regards trees, fountains, and indeed even stones as animated beings endowed with will, which either serve or harm him from choice. The philosophical spiritualist recognizes the uniform regularity of natural events and regards the objective world as constituted of atoms which attract and repel each other according to mechanical and chemical laws and in this way "weave a living garment of deity." It, however, ascribes mind and consciousness to these ultimate units, because it is unable to conceive of the independent existence of any object which is devoid of spiritual subjectivity. No

matter whether this spirituality of the essential nature of things be conceived as idea, will, or phantasy, this universal animation is still under the ban of our "fundamental apperception." The form under which we are compelled to conceive the world is certainly one side of its true nature. We believe, however, that to make this the whole of it is as untenable as it is useless.

There is a sense in which spiritualism stands higher than materialism because it includes in its world-theory the facts immediately given in psychical life and does not set them aside as a superfluous by-product. But it also obliterates the distinction between the psychical and the physical. It is quite as difficult for us to conceive how matter can think as that mind should have the attribute of extension. Material processes, as we have previously indicated, are accessible through sense perception, but this is not the case with the spiritual processes. How two utterly incomparable processes should arise independently and then pass from one to the other remains just as profound a mystery if mind is conceived as proceeding from matter, as if matter is to proceed from mind.

Spiritualism also suffers from still another, deeper defect. If the world is supposed to consist of spiritual entities, then the concept of something which persists, the concept of substance, is introduced into the psychical process. But it is characteristic of our mental life as we experience it in our consciousness, as previously remarked, that we never know it except as an event, an

occurrence. The concept of a persisting substance is, however, wholly unsuited to express this occurrence. As a thought-form it is essentially confusing. Modern physics would even eliminate this concept from natural science, entirely, and speak only of the laws of occurrence but never of a persistent substrate. This proposal appears to be futile to us in the case of the physical processes, but the explanation of psychic life demands the complete elimination of the concept of substance. Modern psychology likewise insists on this demand. It has indeed partly accomplished it already. It must appear contradictory to speak of spiritual substances if the nature of psychical phenomena is conceived in harmony with the facts. Psychology must on this account protest against a world-theory which fails to accord with the real nature and course of the spiritual processes.

The solutions of the ontological problem offered by the other monistic systems, of which we have spoken above (p. 137), are not as one-sided as materialism and spiritualism. By a process of further abstraction they aim to secure a higher concept which shall comprehend both matter and mind, both physical and psychical processes. One school presumes to have discovered this higher concept in a persisting eternal substance, the other in the law governing the process which it construes as incessant becoming. We therefore distinguish two further forms of monistic theory, the *Monism of Substance* and the *Monism of Becoming*.

31. THE MONISM OF SUBSTANCE

The oldest form of this theory is the doctrine of the so-called *Eleatics*, which originated among the Greeks during the sixth and fifth centuries B.C. The school receives its name from the city of Elea in southern Italy which was the home of most of its disciples. *Xenophanes*, the founder of the school, protested against the anthropomorphizing conception of the gods which appears in *Homer* and *Hesiod* and taught that the Deity is not like man either as respects form, nor in his manner of thought. The doctrine, however, received its ontological development at the hands of his disciple, *Parmenides* of Elea. We have already become acquainted with the *Eleatics* as the founders of an intellectualistic theory of knowledge. Sense-perception, according to *Parmenides*, is wholly illusory.¹ The goddess to whom he appeals, warns him against "the unseeing eye and the buzzing ear." Pure thought alone leads to the knowledge of real being. This Being is One and Eternal. It is uncreated, knows no past and no future, but only an eternal "Now." Being is furthermore indivisible, unchangeable and therefore knows neither plurality nor motion. *Parmenides* was not in a position to carry this severe abstraction through to its logical con-

¹ *Parmenides* committed his thoughts to didactic verse about 480 B. C. About 150 lines of this poem are still extant. The best edition is by Herman Diels: *Parmenides Lehrgedicht*, Greek and German. Berlin, 1897. It is also contained in the same author's published compilation: *Die Fragmente der Vorsokratiker*. 1 vol., 2 Ed., 1907.

clusion. His imperceptible being, which is only conceived by pure thought, as he expresses it, is like "the mass of a well rounded sphere, in which the distance from its center to all its sides is equal." He therefore represents the abstract also as having sensible form. *Zeno* of Elea, the disciple of *Parmenides*, with keen analysis and great subtilty endeavored to verify the doctrine of his master. He adduced a number of proofs against the trustworthiness of the senses and against the real existence of plurality and motion. The doctrine of the *Eleatics* exerted considerable influence upon *Plato*, who regarded his ideas, after the *Eleatic* mode of thought, as eternal and unchangeable, and as pure spiritual entities, imperceptible to the senses, and comprehensible only to those who do not permit the soul to be deceived by the illusoriness of phenomena.

The fundamental thought of the *Eleatics* retains its significance even to the present time, and it is likely to continue to do so in the future also. That sense-perception does not have the last word even in questions of natural science, was most clearly and conclusively demonstrated to the thinking world by *Nicholas Copernicus*. If it were necessary to persuade men that the sun, which rises and sets before our eyes every day, really does not change its place, then abstract mathematical thought, indeed even constructive scientific imagination, must possess more convincing power than "the unseeing eye and the buzzing ear." But *Copernicus* has taught philosophers even more than this. The earth, which was

until then regarded as the center of the universe, became a small, insignificant planet revolving around the sun along with many others. *Giordano Bruno* (1548-1600) was the first philosopher who drew the ontological consequences which follow from the astronomical doctrines of *Copernicus*. He proclaimed his doctrine of the eternity of the world and the unity of the universe with fervent enthusiasm. *Giordano Bruno* was burned at the stake as a heretic in Rome on Feb. 17, 1600, because his theory conflicted with the prevalent dogmas, and because he refused to compromise his conviction by recantation. Bruno's theory of the unity of the universe, however, which identified God with the world as will be shown later, still remained active. *Baruch Spinoza* (1632-1677) revived it again, though in a somewhat different form. Whilst *Spinoza* is less vivid he is logically more consistent. It is in his system that the monism of substance finds its purest expression.

Spinoza, a son of Jewish parents, born in Amsterdam, was acquainted with the Old Testament from his early boyhood and was afterwards also introduced to the doctrines of the Jewish philosophy of religion. Here he became acquainted with a concept of Deity which, so far as this is attainable by human thought at all, is free from everything anthropomorphic. This Deity at all events remains a being which is distinct from the world. He was, "before the mountains were brought forth" (Ps. 90) and created the world by his word. But after *Spinoza* became acquainted with the philosophy of *Des-*

cartes (1596-1650) and learned to understand the precision of mathematical proof, this dualism of God and the world no longer satisfied him. He conceived the commandment to love God, so often emphasized in the Old Testament, in the strictest and broadest sense and could not think of this commandment otherwise than that it required the unreserved devotion of man to the infinitude of God. From this he was gradually led to the concept of God as the only substance, whence all being, the corporeal as well as the spiritual, must be derived with logical consistency. Hence for him, just as for the persecuted *Giordano Bruno*, God and the world are one and the same (*Deus sive natura*).

This single substance, the very concept of which implies existence, has two attributes, thought and extension. Every single thing in the whole universe, i. e., including every human being, is nothing more than a phenomenal form, a Mode of this single substance. If we should regard things from the viewpoint of eternity (*Sub specie aeternitatis*), rather than as isolated events, then all being and becoming form a perfect harmony. We have always to deal with only the one substance whose attributes are manifest in a variety of phenomenal forms. The order of ideas in the human mind is the same as the order of things because both proceed from the same source, namely the single, eternal, indivisible substance. The highest aim of human knowledge as well as the climax of human happiness consists therefore in unconditioned

surrender to the universe, or as *Spinoza* formulates it, intellectual love towards God.

Spinoza's theory regarded from the viewpoint of its uniformity and rigid consistency is without doubt a magnificent system. Closer inspection however reveals the fact that certain very important matters are neglected in its fundamental principles. The first mistake, which has been frequently adverted to by others, is this, namely that *Spinoza* identifies the logical relation of ground and consequence with the ontological relation of cause and effect. He thinks that it is possible to derive all being and becoming from the concept of substance by the same method as geometry deduces its propositions from its definitions of the forms of space. Hence he believes that his metaphysical hypotheses, which he deduces in his *Ethics* according to the geometrical method, have the same irrefutable force as the geometrical propositions. He forgets that geometry operates with concepts of its own creation, whilst those used by philosophy are objectively given. A second difficulty with *Spinoza* consists in the fact that he likewise eliminates time from the world-process. In his conceptual deduction, *Spinoza* sees only the eternally persistent, that which forever remains self-identical, and fails to observe that in the world-process change and development are continually in progress. As the third error of the Spinozistic world-theory we must furthermore call attention to the purely intellectualistic doctrine of psychic life prevalent at that time. Like *Descartes* he regards thinking as the sum

total of psychic life. But modern psychology teaches that feeling and volition are the original forms of the activity of consciousness and that intellectual activity is a later differentiation of mental life.

Spinoza's monism of substance therefore, in its rigid form, is unsatisfactory. *Goethe*, upon whom *Spinoza* exerted a permanent influence revived the rigid concept of substance independently. The identity of God and nature appealed strongly to him; but to him nature is life, development and constant change. *Goethe* therefore hailed the appearance of *Schelling's Philosophy of Nature* (1797) with great joy—a work which retained the central thought of *Spinoza*, the identity of nature and mind, but combined with it the idea of development.

Schelling (1775-1854) accepted the theory of *Spinoza* without reservation. He expresses the hope already in one of his earliest works that he might be able to demonstrate the reality of "the Idea" as a supplement to *Spinoza's Ethics*. He writes to Hegel: "I have become a Spinozist, you will ere long see how." *Schelling* also regards nature and mind as phenomenal forms of the Absolute; the universe too is uniform throughout. But in distinction from *Spinoza*, *Schelling* did not regard nature and mind as attributes, but as the two poles of the Absolute. *Schelling* regards the law of polarity, as it is revealed in the phenomena of magnetism and electricity, as a universal law. Just as the magnet shows neither northern nor southern attraction at its center, but a kind of indifference to both, so in like manner does

the Absolute divide itself in nature and mind. But the true reality of the Absolute still remains a spiritual entity. Nature, according to *Schelling*, is "mind become visible." Thus *Schelling's* so-called philosophy of identity, which regards thought and being as one and the same thing, inclines towards spiritualism again. The Absolute, according to *Schelling*, is essentially unchangeable and forever the same; but it manifests itself in the phenomenal world in a variety of forms, which *Schelling* conceived as an evolutionary process. *Schelling* described nature under the concept of the two poles of the Absolute in considerable detail, and his *Philosophy of Nature* exerted a marked influence for a while, even though it really contained nothing new. It became necessary for modern science to reject the Schellingian method of deducing natural laws from philosophic ideas root and branch, and to destroy it completely. In recent years, however, we begin to perceive that *Schelling's* theory, which explains all the forces of nature from a single general principle, contains much that is true. Modern science has gradually arrived at the theory of regarding all natural processes as the transformation and transposition of a single uniform energy.

The Monism of Substance has received its most logical and consistent treatment at the hands of *Hegel* (1770-1831). *Hegel* conceives the identity of thought and being in such a manner that the logical, or in *Hegel's* language, the dialectical evolution of the concepts is identical with the evolution of the world-process. *Hegel* con-

strues *Schelling's* law of Polarity as the purely logical antithesis of the concepts. Every concept, according to *Hegel*, compels us to think of its antithesis. Every A at the same time demands a non-A to complete the thought. But in the very moment when the concept has brought out the thought of its antithesis, there arises at once the logical necessity of combining both concepts under a more general one, or, as *Hegel* puts it, of "annulling" the antithesis. This implies that we can discover absolute truth by following the self-evolution of the concepts abstractly. Thus *Hegel* leads us from the pure abstract concept of being to the idea, which "discharges itself as nature from subjectivity into objectivity," in order to return to itself again as mind. Evolution reaches a climax in the three stages of the evolution of mind, the subjective, the objective, and the absolute mind, the last of which reveals itself in art, religion and philosophy, but only to return again to its starting-point, abstract being. Whilst *Schelling* directed his attention chiefly to nature, *Hegel's* strength lies in the philosophy of mind. In this department he has greatly improved the historical method of investigation chiefly through the concept of the "objective" mind as realized in law, morality, and custom, and as it is actively displayed in the life of the family and the state. We have learned from him that every individual human being is under the influence of objective mind, and that no stage of mental development can be understood except by an exhaustive study of its antecedent history. But *Hegel* thought

that his dialectical method spared us the trouble of exact investigations in natural science and in history; and that it enabled us to deduce the laws of Being and Becoming by pure speculation. It is for this reason that exact science was forced to resist his influence so vigorously, and that *Hegel* personally found such violent opposition among scientists. At present, since the study of facts has long been the accepted method of investigation, we have once more regained that unprejudiced state of mind which enables us to form a more impartial judgment of the services of *Hegel* to the advancement of human knowledge. *Hegel's* philosophy deserves our esteem and admiration above all, as an imposing and inherently logical intellectual structure. But the historical method of interpreting everything which appertains to mental processes is likewise a valuable legacy from the positive content of his doctrine.

The Monism of Substance has been carried out consistently only by the *Eleatics* and *Spinoza*. *Schelling* and *Hegel* combine with it the further idea of development: *Schelling* in the sense of an actual change; *Hegel* rather as a self-unfolding of the concept. With *Schelling* and *Hegel*, as we have previously observed, this Monism likewise savors of Spiritualism in that the nature of the Absolute, according to each of them, in the last analysis is mental.

Recent naturalists, especially *Ernst Haeckel*, have placed this type of Monism on a more materialistic basis again. *Ernst Haeckel*, in his widely circulated book,

The Riddle of the Universe, has attempted to describe the cosmic process as a unitary evolution. He starts with the concept of matter which he conceives as already furnished with a variety of potencies and tendencies. In this evolution the most complicated phenomena of individual and social life issue gradually from simple material elements, which however contain within themselves the germs of psychic life.

Another school of thinkers, on the basis of certain physiological and physical theories, have undertaken to eliminate the concept of substance, conceived as a persistent reality which permanently preserves its identity, from the philosophical view of the universe entirely, and to regard change, which is incessant and regular, as the only thing that endures. We shall now proceed to describe this latter theory, which we have called the Monism of Becoming—a theory which is beset with many and great difficulties, but which has been worked out with remarkable consistency.

32. THE MONISM OF BECOMING

The Monism of Becoming, like the Monism of Substance, originated in Greek antiquity. *Heraclitus* of Ephesus (200 B.C.), in direct contradiction of the *Eleatics*, postulated Becoming and Change as the principle of the Cosmic process. "All things are passing, and nothing abides," is one of his characteristic sayings. Comparing the cosmic process to a flowing stream, he remarked, "We cannot step into the same river twice, for it is then

no longer the same.”¹ *Heraclitus* moreover recognized the fact that Law, a sort of universal reason, which he called Logos, governs this constant change. He says: “This cosmic order, the same in all beings, has been created neither by God nor man, but it always was, and is, and ever shall be an ever-living fire.” The fire, which, according to *Heraclitus*, constitutes primary matter, seems moreover to be only a symbol of eternal motion. *Heraclitus* is likewise already familiar with the idea of a constant evolution towards higher forms. Hence he calls *Strife* the father of all things. According to his view, gods and men, the bond and the free, have sprung from this *Strife*.

The *Stoics* to a certain extent revived the doctrine of *Heraclitus*, but without a full appreciation of the profound meaning of his fundamental principle. And *Giordano Bruno*, whose enthusiastic spirit is enraptured with the thought of eternal growth, likewise reveals the influence of *Heraclitus*. *Hegel* was disposed to ascribe the fundamental ideas of his own system to *Heraclitus*. *Lasalle*, a disciple of *Hegel*, afterward wrote a two volume commentary on *Heraclitus*, in the same spirit.

¹There are over a hundred fragments of the works of *Heraclitus* extant, which are most readily accessible in the work of Herman Diels: *Herakleitos von Ephesus*, Greek and German. Berlin, 1901. It also appears in the collection: *Die Fragmente der Vorsokratiker*. (The English student will find them to the best advantage in Bakewell's *Source Book of Ancient Philosophy*, 1907; or, Burnet, *Early Greek Philosophy*. 2 Ed., 1908, Trans.)

There is no doubt but that both *Hegel* and *Lasalle* have frequently attributed a meaning to the sayings of *Heraclitus* which is wholly foreign to the Greek philosopher; but their judgment is correct, so far as it pertains to essentials. *Heraclitus* did not regard the universe as a persistent Substance, but as a cosmic process.

Modern scientists, on the basis of the doctrine of evolution, have appropriated this thought enthusiastically and carried it through to its logical consequences with rare consistency. Before turning to the explanation of this, the most modern type of Monism, let us pause a moment with the doctrine of *Evolution* to which we have just referred.

Kant had applied the idea of evolution according to mechanical laws to the explanation of the inorganic world with strict logical consistency in his *General Natural History and Theory of the Heavens*. (Published 1755.) His hypothesis of fiery nebulae, whence our solar system evolved, was afterwards stated in very similar terms by the French astronomer and mathematician *Laplace*, who arrived at the same conclusion independently of *Kant*. This hypothesis is now commonly known as the *Kant-Laplace* theory.¹ *Helmholtz*, in a brilliant essay,

¹*Laplace* did not explain his hypothesis in as much detail as *Kant*. It is published in a note, of considerable length, as an appendix to his work: *Exposition du systeme du monde* (pp. 498-509, Vol. 4, of the large Paris edition of his complete works). But whilst *Kant*, with absolute confidence, exclaims: "Give me matter, and I will construct a world," the astronomer and mathematician is much more reserved. He thus announces

has shown that this theory likewise corresponds best with the present state of science.¹ Kant stops short deliberately at the border of the organic world. Whilst he has such complete confidence in his hypothesis, that he thinks it is safe to say: "Give me matter, and I will construct a world, that is; give me matter and I will show you how a world should evolve from it;" he will not presume even to suggest an explanation of the genesis of a single plant or a caterpillar.

The investigations of *Goethe*, *Lamarck*, *Geoffroy-Saint-Hilaire*, *Spencer* and *Darwin* have greatly increased our insight into the evolution of the organic kingdom. We know that the most complex organic structures likewise evolve from simple elements, and we have at least a suspicion of the laws governing the evolution. We must, of course, assume that the fundamental properties of life, such as growth, nutrition, adaptation of functions to environment, are already present in the elements—the cells, neurones, plasomes, or whatever else you choose to call them. But this much is quite certain, namely, that all organs and all functions develop according to fixed tendencies which are directed towards the preservation

his theory: "I will propose an hypothesis, in a note at the end of this work, which, as it appears to me, can be deduced, with a high degree of probability, from the phenomena here described; but which I nevertheless, offer, with that profound hesitation, with which everything, which is not the result of observation and calculation, must fill every one of us." p. 477.

¹Helmholtz: "Concerning the origin of the Planetary System," issued in *Essays and Addresses*. Vol. 2, p. 53 ff.

of the organism and its species. Biology, the science of the laws of life, which is an outgrowth of this method of explanation, has made marvelous progress by diligent investigation of details. It has now become imperative that the evolution of the human mind likewise be explored from the viewpoint of the preservation of life, or, to express it in scientific terms, according to biological principles. *Herbert Spencer* made the first attempt in this direction in his *Principles of Psychology*. He has made important contributions to our knowledge of the psychical processes notwithstanding the fact that his definition of life was not broad enough.

If we conceive everything which takes place in the human organism as a vital process, it would seem to suggest the possibility of discovering a combining principle for physical and psychical phenomena, and of postulating a concept which would really comprehend both. Such a concept would furthermore at once enable us to extend our observation to all manner of events and to formulate a monistic theory which is far more comprehensive and at the same time more consistent and accurate than anything hitherto attempted. *Richard Avenarius* and *Ernst Mach* have undertaken the task of elaborating such a concept. The *Empiriocriticism* of *Avenarius* is the most logical monistic system thus far proposed.

Avenarius and *Mach* reached their respective conclusions independently of each other and by different paths. *Avenarius*, who, at the beginning, was much occupied with *Spinoza*, and perhaps strengthened by these studies

in the desire for a strictly monistic theory of the universe, starts from the viewpoint of materialism, whilst *Mach*, at the outset, stands much closer to idealism. *Mach* tells us that, even in his early youth, he was impressed with the thought, while reading *Kant's Prolegomena to every future Metaphysics*, that the assumption of a transcendent thing-in-itself was wholly superfluous.

The central thought of the *Avenarius-Mach* Monism is the nullification of the distinction between physical and psychical phenomena. These philosophers however do not annul this distinction by the adoption of a transcendent materialistic or spiritualistic hypothesis, but by a penetrating analysis of the ego-consciousness. Just as *Copernicus* has compelled us to abandon the geocentric standpoint, and to regard our earth as nothing more than a mere planet among a number of others in the universe, so these investigators aim to show that what we call our Ego, is nothing more than a complex of separate elementary processes, the union of which, though stable, is by no means indestructible. *David Hume*, with whose epistemological theory *Ernst Mach* finds himself in sympathy in other respects also, is the forerunner in this dissolution of the concept of the ego. The relative dependence of the primary processes constituting my Ego upon the processes of my environment, are precisely the same as the relative dependence which obtains between the other processes of the universe. Mathematics has invented the concept of *function* in order to generalize the various interrelations of magnitudes.

The formula $a=f(b)$ (a is the function of b), means that for every change in the magnitude of a , there is a corresponding change in b . If we amplify this concept of function so as to include not only quantitative, but also qualitative relations of dependence, we shall be able to say: Elements, related to each other functionally, are the only factors discoverable in the universe. If this is true, then science has nothing more to do than to describe these elements and their functional relations as simply as possible. An economical arrangement of experience must at the same time accompany this description, in order that a single thought may comprehend the common element of a variety of experiences and thus combine and utilize the largest possible number of functional relations with the least possible expenditure of mental energy. Thus, for example, the concepts of number are simply very convenient instruments of thought which enable us to handle relations of the widest generality in short and precise formulas.

The universe, in the language of a recent scientist (*Heinrich Gomperz*), is thus construed as a well-ordered event. Hence it is entirely out of place to speak of substances and causes in this connection. Every substance immediately dissolves into a series of events, and all that can be said of these events is, that a regular succession and concomitance exists between them, but no causal connection." The only permanent thing about it is the purposiveness of the biological

functions exhibited in the life of organisms; but this is simply a characteristic sign, a guide to future exact description advantageous to the organism.

According to *Avenarius*, the elements, between which the functional relations obtain are of a material, substantial nature. He regards every human being, together with his perceived environment to which he is related, as a "*Principial-coördination*," i.e., as a coördinated system which has existed from the beginning. *The "self-styled Ego" together with its environment, constitute one whole.* The system C, by which *Avenarius* means the brain, is the central member of this principial-coördination. In the theory of the universe which every human being formulates spontaneously, the perceptions, thoughts and feelings of his associates are injected into the minds of each of them respectively. We distinguish the tree in our spatial environment, "the real tree" so to speak, from the image of the tree which our associate possesses in his "soul." This "ascription" or "injection," according to *Avenarius*, is a duplication of the world contrary to fact, because we thus correlate our "thoughts" with the "things" of our environment anti-thetically. And then we finally classify our body with things; but within it there dwells a peculiar being, unique in its kind, the soul, the substrate of our thoughts and feelings. *Avenarius* regards this duplication of facts as a perversion of true experience. Every human being is merely a central member of a principial-coördination, and his environment, so far as he perceives

it, is the same as his thoughts and feelings: "Dependencies of System C" (the brain).

Avenarius thinks that he has solved the antithesis between the physical and the psychical by the introduction of the concept of principial-coördination, and by conceiving of psychical phenomena merely as "Dependencies of System C." He thinks he has thus restored the natural concept of the universe, which, in his opinion, admits of but a single species of events. But since he makes the brain, i. e., a material organ, the basis of his monistic theory, his monism still savors of materialism. The things which he describes as "Dependencies on System C," as well as the System C itself, and everything which transpires within it, are nevertheless substantial processes, limited to a material substrate. His deductions, followed to their logical consequences, finally lead to a materialistic monism.

With *Mach* the matter stands quite differently. As previously observed, *Mach's* starting-point is idealism. He expressly says that he does not wish in any wise to conceal the idealistic origin of his views. He consequently seems to develop the Monism of Becoming far more rigidly and consistently than *Avenarius*. According to *Mach*, the elements which constitute the universe are, primarily, sensations. These, being psychic phenomena, bear the impress of mere events, of processes pure and simple, without substrate, which is the distinctive characteristic of all psychic experiences. *Mach* is of the opinion that even physical phenomena, if thor-

oughly analyzed, are not represented as persisting substances, but merely as events between which uniform relations prevail, just like the psychological. He thus arrives at a real monistic theory which is free from materialism. The unifying principle at the center of all these reflections is the concept of Becoming. The elements are not permanent, unchangeable atoms, but primary processes which are governed by functional relations. This likewise accounts for *Mach's* emphatic declaration that the idealistic origin of his theory is not to be concealed. For, as a matter of fact, the only way to reach the concept of pure becoming, as well as its logical application, is by means of introspective observation of our own psychic life. In order to fully comprehend this theory, we shall, of course, have to rise above all personal prejudices concerning the ego. We shall have to discover, so to speak, the point of *Archimedes*, external to the Ego, whence to survey the course of cosmic events. Then, as we come to identify ourselves with the universe and, in harmony with the sentiment of "Johnny the stone-breaker" in *Anzengruber's Kreuzelschreibern*, reach the conclusion that "you are a part of this whole thing, and this whole thing is a part of you," we begin to see that what we call our Ego is after all only an evanescent conglomeration of cosmic events, governed by precisely the same laws which control the rest of nature. The universe will thereafter appear to the clarified vision of the philosopher as a series of uniform events, and the distinction of the elements which are

governed by these functional relations will vanish entirely.

Mach has described his monistic theory still more definitely in his recent work, *Knowledge and Error*. In this work he acknowledges that the Monism of Becoming is the correct name for his theory (p. 460, 2 Ed.). He defines the distinction between physical and psychical facts as follows: "The totality of whatever can be perceived in space by every one alike is physical in its nature," "on the other hand whatever is immediately given to only one, but accessible to all others only by analogy, should be known as a psychical process." (p. 6.) This distinction, however, does not occur at the beginning of experience, but only follows from the social experience of human fellowship. "If any one should by accident attain maturity in isolation from human companionship, he would scarcely make the analysis by which his scanty store of ideas would be contrasted with his sensations; he would never reach the idea of the Ego, so as to distinguish it from the universe. For him all Becoming would combine into one grand event." (p. 460.) "When man, by analogy, made the discovery that there are other living beings, similar to himself in nature and conduct, human beings as well as animals; and when he was forced to recognize that these beings must be judged with reference to circumstances which are not accessible to immediate sense-perception but by analogies which were familiar to him through his own individual experience, there was only one course open to him: he must divide the

processes into two classes, namely, such as could be perceived by everyone, and such as could be perceived by only one observer. At this stage he became definitely conscious of the idea of the self in distinction from the self of others. The two ideas are inseparable." (p. 459 ff.) Both *Mach* and *Avenarius* regard the distinction of physical and psychical facts as an arbitrary one, and hence as unjustified. Both of them wish to restore "pure experience," to the status in which this distinction had not yet been made. They do not by any means intend to combine the physical and the psychical by means of an unknown third principle, as *Spinoza* does, whose divine Substance transcends both the physical and the psychical. The standpoint towards which both *Mach* and *Avenarius* are striving is rather more elementary than either the physical or the psychical.¹ There is but one universe, but a single cosmic process, for the division of which into two worlds there is absolutely no ground whatever. In the discussion of the problem, *Avenarius* is governed more by the systematic, *Mach* by the methodological, viewpoint. *Avenarius* is in search of a "natural theory of the universe," that is to say, a system, or theory of the world and of life. *Mach*, on the contrary, is after a point of view which is equally

¹*Spinoza* combines the physical and the psychical by a third principle, *Substance*, which he postulates as the reality behind these respective Modes; *Mach* and *Avenarius* make the combination in the concept of *experience* which is discovered on this i. e., the subjective side of the physical and the psychical phenomena. Trans.)

well adapted to the purposes of physics and psychology. *Mach's* theory, therefore, is not metaphysical, but only methodological monism. As such it is nevertheless of vast importance for the advancement of science, especially for the elimination of superfluous problems. But it cannot be denied that *Mach's* methodological principles do contain the elements of a world-theory which must be described as the Monism of Becoming.

This theory is unquestionably more exact and consistent than any other attempt at monistic interpretation. But criticism must still raise the question, whether even this theory will work out. Can we conceive of experience prior to the recognition of physical and psychical facts? Can we seriously speak of a theory of the universe at this stage? Experience does not merely consist of the experience of the bare facts. It presupposes, in every instance, some kind of formulation and analysis of these facts. Every impression which has an objective origin must, so to speak, traverse the whole centralized organization of man,—in the language of *Avenarius*, through System C—in order to become experience. Human fellowship and coöperation are likewise indispensable for the production of experiences which are biologically useful. But experiences of this kind are impossible without fundamental apperception, as indicated above, which already presupposes the antithesis of Ego and World. It is difficult to believe, therefore, that experience of any kind can be possible prior to the recognition of this distinction or even without it. It

appears to me therefore that this attempt at a monistic world-theory, although of vast significance, does not entirely clear itself of dualism.

The monistic attempts to solve the ontological problem have greatly increased the powers of the human intellect, and they have taught us to contemplate things from the viewpoint of their totality. As a matter of fact, however, we do not as yet seem to have succeeded in explaining the manifold of the phenomenal world from a single, fundamental, unitary principle. But when we confine ourselves to the formal concept of Becoming, and regard the universal reign of law as the unifying principle, we find that dualism still remains, as we have just observed. Consequently, of late years, there has been a growing tendency to return to dualism, which is apparently less scientific, but it at all events corresponds better to actual experience. We must now turn our attention to the problems resulting from these inquiries.

33. DUALISM

Dualism, as we have observed before (p. 137), is the world-theory which commonly prevails among unreflective minds. At this stage body and soul are conceived as two distinct realities, which abide together and cooperate with each other for a definite period of time. But in this view the idea of the soul is not strictly immaterial. The soul is a persistent being, possessing its own separate existence, and hence material in its

nature, no matter how we may refine or sublimate its materiality.

Philosophical dualism must endeavor to eliminate all materiality from the concept of the soul. The only way in which this can be done successfully requires us to give up the postulate of a permanent psychic substance, and regard the psychic phenomena as nothing more than a process, which, absolutely unextended, exhibits nothing but temporal progression. This strict conception, the only one capable of doing justice to all the facts, is of very recent origin, and it has not as yet found general acceptance among philosophers. The theory of a substantial soul still survives. This theory involves the difficult problem of the reciprocal relation of body and soul which has been the subject matter of incessant controversy ever since the beginnings of philosophy.

At the very beginning of its investigations dualism is confronted with this problem of the relation between body and soul, which really forms the kernel of every dualistic theory.

Aristotle was the most thorough-going dualist of antiquity. He of course regards the soul as only the Form, the Perfection (*Entelechy*) of organic being, which perishes with the body. But, in addition to the soul, there is also a Spirit which is separable from the body. This spirit inhabits the body during its lifetime, departs at death and thereafter continues its own independent existence. The Aristotelian doctrine was most readily harmonized with the dogmas of the Christian



religion, on account of which it maintained its influence, with slight modifications, throughout the middle ages. Dualism received a far more thorough and concise formulation at the hands of *Descartes*, who completely separated body and mind as two distinct entities; the characteristic attribute of body being extension; that of mind, thought. Extended being (*res extensa*) and thinking being (*res cogitans*) are the two substances which are by nature radically opposed to each other.

Descartes solves the problem of interaction by locating the soul in the brain (the pineal gland), where it may be acted upon by the body and react upon the body in turn. But the interaction between two substances, so wholly unlike, seemed a logical impossibility to subsequent thinkers. An effort was then made to explain the undeniable relation existing between physical and psychic facts in some other way. The so-called Occasionalists assumed (*Geulincx*, 1624-1669, and *Malebranche*, 1638-1715) that God, upon the occasion of every physical process, produces the corresponding psychical process, and *vice versa*. This implies that the processes only furnish the occasion for God to interpose. *Leibnitz* afterwards substituted a predetermined correspondence or preëstablished harmony for this incessant interference upon occasion. Just as a skilful jeweler might construct two clocks, which, without being directly connected, would still keep even time, so God, in his omnipotence, has disposed the body and the soul to remain in perpetual harmony, so that every stimulus is invariably

followed by its corresponding sensation, and every volitional act by corresponding movement, although soul and body never act upon each other.

Dualism has really not had any consistent and serious defender since *Descartes*. The idea has seemed to prevail that it could be annulled by a superior Monism. But the problem of the reciprocal relation between physical and psychical processes nevertheless still remains a subject of controversy.

Recently the theory of psycho-physical parallelism has been proposed as an explanation of this reciprocal relation. According to this theory the physiological processes within the nerves and more especially within the brain, upon which the psychical processes ultimately depend, are psycho-physical processes. As a matter of fact, only one process takes place, which, however, presents two aspects to our observation. Objectively regarded, its nature is physical and it belongs to the causal series of natural processes; subjectively, however, the same process is psychical in its nature, it is sensation, perception, idea, emotion or volition.

Psycho-physical parallelism is only an apparent, not an actual, solution of the problem presented in the inevitable fact of the reciprocal relation between physical and psychical phenomena. To speak of an "inner aspect," is to make use of an illusive metaphor. We do not describe psychical phenomena as inner processes because they appear to be located within our organism. In this sense, indeed, even the purely physiological

processes, such as digestion, assimilation, circulation of the blood, all of which take place within the body, would have to be included under this term. The "inner aspect" of the psycho-physical process therefore, is its psychical nature only, conceived as a process of consciousness. But just as soon as the process of consciousness, together with the coördinated cerebral process is conceived as single and unitary, we at once approach a materialistic interpretation. There is then no escape from saying that at the moment when the physiological processes attain a certain degree of complexity, psychic experiences supervene. But in that case these would be nothing more than functions of the physiological process. Thus conceived, the unitary process is material, and the psychic element, as *Ribot* expresses it, is merely super-added (*surajouté*), and has really no bearing whatever on the nature of the process. But in this way psycho-physical parallelism is transformed into pure materialism, and all the arguments adduced against the latter apply also to the former. *Mach's* standpoint is the only method that avoids the problem of the reciprocal relation between the physical and the psychical phenomena. But we have already shown that even here, Dualism has not been completely overcome.

In our opinion Dualism has not been conclusively refuted by any means. There is nothing whatever in the concept of causality to justify the assertion that things which are unlike cannot interact. Furthermore, the interaction between physical and psychical factors

is one of the most primitive facts which we experience. Whenever we execute a movement on the basis of a volitional choice, we feel, as it were, how cause and effect pass in transition from one to the other. This very combination, as *Jodl* has expressed it, is the *prototype of all causality*. But if we recall our explanation of the origin of the function of judgment, we are prepared to say even more. This combination of volition and movement is the only causal connection which we actually experience as it occurs. But, due to the 'fundamental apperception to which it gives rise, this combination is likewise the source of all our judgments, and, consequently, of all our knowledge.

It scarcely seems reasonable to characterize a fundamental fact of this kind as unintelligible. It appears unintelligible only so long as we regard causal relation one-sidedly, i.e., from the standpoint of natural science, and subordinate every reciprocal relation to the law of the conservation of energy. This principle, especially since its real significance has become known through the investigations of *Robert Mayer*, *Joule*, *Helmholtz*, *Mach*, and very recently *Ostwald*, has been brilliantly verified as applied to all chemical and physical processes. There is abundant methodological justification, therefore, for adhering to this well-established principle just as long as it is possible to do so, and even for applying it to newly discovered forms of energy, as observed, e.g., in radio-active substances. But the principle of the conservation of energy is by no means the only mode by

which causality is expressed. We observe causal relations within the realm of psychical phenomena, i.e., in the domain of intellect, where the idea of the constancy of energy is wholly out of the question. Even in the case of every individual human being mental development reveals a constant increase of psychic capacity. And this increase becomes far more imposing and impressive when we contemplate the historical development of the whole human race. The discovery of the art of printing has increased the intellectual possibilities of mankind to an extent which simply staggers comprehension. To-day we employ concepts with playful ease, the formulation and construction of which engaged the severest application of an *Aristotle*. We see, therefore, that the law of the conservation of energy is not adapted to explain the evolution of mind. It appears to us that the law of the increase of psychic energy, postulated by *Wundt* (*Wundt, Ethik*, 3 Ed., II, 72 ff), is far more appropriate in the realm of mind. In the physical universe causality is a closed series which rests upon the principle of the equivalence of cause and effect. In the realm of mind and of minds, every process is, indeed, likewise caused by preceding processes, but the effects far exceed their antecedent causes. Physical processes discharge mental processes, after which the latter, owing to the fact that great numbers of our fellows are affected by them, undergo a multiplication and a diversification which approaches the immeasurable. Causality therefore does not appertain only to the realm in which the

conservation of energy prevails. The reciprocal relations which actually exist between physical and psychological processes, relations which are matters of constant experience, cannot be interpreted otherwise than by reference to mutual interaction and reaction. This interpretation in nowise conflicts with any scientific law of thought, as has frequently been charged. The concept of causality by no means requires that the effect must be equivalent, or even similar in nature, to its cause. Even in the physical world, the so-called "discharging" causes are not at all equivalent to the discharged effects. But all psychic processes are of the nature of discharges and in turn produce discharging results. The theory of interaction between physical and psychological factors is therefore scientifically tenable, all objections to the contrary notwithstanding.

Accordingly there are physical processes in the universe, i.e., processes which are or may be sensuously perceived, and which appear at the same time to be inseparably combined with a substantial substrate. But there are also psychological processes which can never be sensuously perceived, and which, in themselves, furnish no occasion for the assumption of a substantial substrate. Their union in the human organism rests upon interaction, which fact, in itself, contains nothing incomprehensible.

Inasmuch therefore as this theory is scientifically possible, dualism still deserves to be mentioned among the accredited theories of the universe and of life.

In addition to dualism, several contemporary American philosophers have again revived the very primitive theory of *Pluralism*. This is a thoroughly deliberate but much more radical reversion to the viewpoint of common sense. The movement is closely related to pragmatism. It is also defended by *William James*, the most vigorous representative of pragmatism. According to this theory man's native impulse for unity is directed towards the future only, never towards the past. The world, when viewed from the standpoint of its origin, is the very opposite of unity. It is rather the vocation of man to bring about a unified organization in the future. According to these thinkers, philosophy has nothing whatever to do with the universe as a whole. Its sole concern is with this earth and its inhabitants. Pluralism is radical empiricism on the one hand, and thorough-going activism on the other. Whilst this latter tendency, characterized by its progressive spirit, constantly insisting on results, can be exceedingly useful, it would still seem that in its theoretical principles it has greatly neglected the unification which has thus far been realized by science. The physico-chemical processes have so much in common that their comprehension under a single general concept is justified, even required. All psychical phenomena likewise exhibit the common attribute of being non-sensuous and of the nature of a process. As long as we preserve intact these two groups of phenomena, we make adequate allowance for all real experience.

34. THE COSMOLOGICO-THEOLOGICAL PROBLEM, GOD AND THE WORLD

The antithesis between animate and inanimate nature, body and soul, which even impresses the primitive mind and which philosophy either recognizes (Dualism) or endeavors to bridge (Monism), becomes a matter of profound significance through the reflective contemplation of man. The universe, as man's habitation, however, was the subject of philosophic speculation long before man himself.

The coherence of cosmic processes, which had been observed from the earliest times, the uniform regularity presented even in the recurrence of the seasons, awakened the desire for an explanation of these phenomena. The nature of the World-all, its origin, its history, and its final destiny, constitutes the cosmological problem. The solution of this problem belongs to the philosophy of nature, which is a subdivision of metaphysics.

The oldest Greek philosophers believed that the coherence and uniformity of the cosmic process could be best explained by the assumption of a single original substance as the source of all things. Water, Air and Fire were assumed by various thinkers to be such original substance. *Empedocles* afterwards postulated the well known four elements (water, fire, air, earth), whilst *Leucippus* and his disciple, *Democritus*, the founders of Atomism, regarded the universe as composed of minute bodies, which are qualitatively alike, differing only as respects form and size. These particles, which are re-

garded as indivisible (atom-indivisible), produce the various bodies by different forms of combination.

This theory, which has been worked out in much greater detail by means of the improved methods of modern science, still forms the basis of the mechanical theory of the universe among a majority of the physicists. The atomic theory of to-day, due to the more accurate determination of the laws of motion and our better knowledge of the chemical properties of matter, has a vastly different content and is much more complex than that of *Leucippus* and *Democritus*, but the fundamental thought still remains the same.

The mechanical theory, however, has not been universally accepted nor permanently satisfactory. The evident purposiveness of so many processes of nature soon gave rise to the idea of an architectonic intelligence which has organized every thing according to design. Anaxagoras was the first philosopher who assumed an intelligence of this sort for the purpose of explaining the cosmic order. His "Nous," or mind introduces order into the chaotic World-all. The cosmological problem has ever since then been intimately associated with the inquiry concerning the intelligent author and providential ruler of the universe. The concept of Deity, foreshadowed by religious ideas, now enters the realm of philosophical speculation. This gives rise to the theological problem, which furnishes the subject-matter of another sub-division of metaphysics, namely the philosophy of religion.

The concept of deity not only affects metaphysics and epistemology, but it has likewise a profound ethical significance. Sometimes the former and again the latter aspect of this concept is prominent, but they are most frequently combined.

Every attempt at a solution of the cosmological problem must reckon with the concept of deity, even if only to deny it. Since it has become a part of the recognized inventory of our philosophical concepts, by consequence of an evolution extending through thousands of years, it can no longer be completely ignored.

Two solutions which are diametrically opposed to each other have been offered for the cosmologico-theological problem. They are named after their respective governing principles, *Mechanism* and *Teleology*.

The mechanical theory regards the total cosmic process as an unfolding of energies which inhere in matter itself. The composition of bodies and their orbits are determined by the most varied forms of attraction and repulsion, centripetal and centrifugal force. This theory can likewise be applied to the explanation of the chemical processes, which are of such vast importance, even though it has not yet been possible to reduce all qualitative to quantitative differences. For the chemical properties likewise inhere in the substances themselves and are not imported from without.

Ancient physical science rests almost exclusively upon the mechanical theory. It is also vigorously defended in the modern period by the exponents of **materialism**.

The attempt is even being made to reduce the processes of vital organisms to mechanics and chemistry, and a number of investigators utterly repudiate the assumption of a specific vital principle.

The concept of Deity can be reconciled with the mechanical theory. It has, in fact, frequently been combined with it. In this case God is conceived as the active principle which produces order (*Anaxagoras*), or He is the prime mover (*Aristotle*) who acts on matter which existed prior to himself. It is only the conception of God as the Creator of the universe which is scarcely reconcilable with the mechanical theory.

The mechanical theory, especially during the modern period, aims to eliminate the concept of purpose from the explanation of nature entirely. This is what brings it into conflict with the teleological theory.

Teleology describes the theory which, emphasizing the evident adaptation of particular cosmic processes, especially of the various organs of the human body, assumes that the universe has been organized by a higher intelligence according to definite plans and purposes. *Plato* reproaches *Anaxagoras* with the charge that his "Nous" displayed nothing more than an activity towards order, but that it gave no account of the end to be served by the various arrangements. The teleological conception regards God as the creator and providential ruler of the universe.

This view receives its clearest expression in the Old Testament story of the creation. From this source it

has permeated the monotheistic religions of the West, forming the nucleus of the most important religious systems. We have thus been familiarly acquainted with this theory from early childhood.

This form of teleology presupposes a personal, supernatural God. Because of its going beyond experience, it may also be called *transcendental teleology*.

The modern period has produced still another form of teleology which conceives purpose as an inherent tendency in things themselves, especially in organisms. This *immanent teleology* is the conception which characterizes the so-called theory of evolution.

This of course applies more particularly to organic nature. It assumes that all organisms are naturally endowed with the instinct of self-preservation both as it pertains to the individual and to the species. In obedience to this instinct the organisms develop in harmony with the conditions of life, to which they constantly better adapt themselves in the struggle for existence.

This theory, which was first proposed by *Lamarck* and defended by *Goethe* in some of its phases, was philosophically formulated by *Herbert Spencer*, and it has found general acceptance among the educated classes through the labors of *Charles Darwin* (*Origin of the Species*, 1859). *Darwin* amplified the general theory by introducing the comprehensive hypothesis, that organisms, by the process of natural selection, transmit to their offspring the characters acquired in the struggle

for existence, thus enabling them to increase their adaptability indefinitely. The doctrines of the Survival of the Fittest and Natural Selection constitute the essence of Darwinism so-called, which, however, is not identical with the idea of evolution in general. Hence, even though recent discoveries have shown that in a number of details the theories of *Darwin* are scientifically untenable, the fundamental thought, so enthusiastically and effectually defended by him, still continues to be of permanent value.

The principle of immanent teleology is exceedingly valuable also in the explanation of psychic life and in the mental sciences generally.

As the example of Darwin himself shows, the concept of Deity may likewise be harmonized with immanent teleology. It simply requires that we assume that God created the simplest vital forms, presumably protoplasma, and that every variety of organisms has gradually evolved therefrom according to the laws of evolution implanted within them by the Creator.

The conception of God as a supernatural intelligence, endowed with omniscience and omnipotence is known as *anthropomorphic Theism*. Every theistic view must necessarily be tinged with anthropomorphism, simply because we can only conceive an intelligent being after human analogy. We can conceive our psychic powers increased to infinity, but they will still continue to be human powers. Theism, in its crude form, is the theory of all primitive races; in its refined form—and this is

what the name is generally intended to imply—it is the view of the prevailing monotheistic systems of religion.

Pantheism differs from theism in this, namely, that according to the latter God and the universe are separate beings, according to the former they are one and the same. The divine element pervades the entire World-all, is present in every part, never distinct from things, but immanent in them.

Anticipations of pantheism are discernible already in *Xenophanes*, clearly maintained by *Giordano Bruno*, and relentlessly and enthusiastically systematized by *Baruch Spinoza*. According to *Spinoza*, there is but one Substance, which, as we have seen above, is God. This Substance has two kinds of expression, or attributes, thought and extension. Every individual thing is a Mode of this single Substance, and, hence, participates in its divinity. The climax of wisdom consists in cheerful surrender to the All of which we are a part; and it is this absolute surrender which *Spinoza* calls divine love. This truly magnificent philosophical system made a profound impression on *Goethe*, who even in his youth, in *Faust's* religious dialogue with Gretchen, as well as after his genius had ripened, repeatedly gave it poetic expression:

“Was wär' ein Gott, der nur von aussen stiesse,
Im Kreis das All am Finger laufen liesse.
Ihm ziehmt's, die Welt im Innern zu bewegen,
Natur in sich, sich in Natur zu hegen,
So dass, was in ihm lebt und webt und ist,
Nie seine Kraft, nie seinen Geist vermisst.”

Besides pantheism still another conception of deity

arose in England during the seventeenth and eighteenth centuries, to which the name of *Deism* has been applied. The representatives of this school (*Cherbury*, d. 1648. *Toland*, d. 1722. *Collins*, d. 1729) demand that reason shall likewise have a voice in religious matters. They reject irrational dogmas as well as the authority of tradition. They proudly style themselves Freethinkers and advocate Natural Religion, meaning thereby a religion of pure reason. They regard God as the creator and director of the universe, but more especially as the source of the moral law. They hold that this concept of deity can be deduced from reason. Faith in God requires neither miracles nor revelation. The value of religion consists in the moral sentiments which it evokes. "Believe in God and do your duty," is the maxim of Deism.

The desire to elaborate the traditional religious concept of deity philosophically was singularly active during the middle ages. The effort was first of all made to furnish a logical demonstration of the existence of deity on the basis of the concept, the teleology of the universe, and other logical arguments. But several of the *Schoolmen* already (e.g., *Duns Scotus*, 1265-1308) recognized the logical untenability of these arguments, and classified the existence of God with the truths of revelation, i.e., such as cannot be established by the processes of reason. Modern philosophy has likewise devoted considerable attention to arguments of this kind, until *Kant* showed the existence of God to be a demand of the

practical reason, i.e., of the moral law, although theoretically undemonstrable. Since that time the concept of God has been construed as preëminently ethical.

In our opinion, however, the importance of the concept of deity is not so much a matter of the foundation of the moral law, as of our theoretical view of the universe. In order to make this clear, we refer once more to the function of judgment as involving fundamental apperception. Since the only method by which we can acquire mental possession of the content of things given in sense perception is by recasting them into the form which is adapted to our organism, and since we are compelled to conceive the content thus given as a potential center and the expression of its inherent energy; moreover since this form has been attested by several thousand years of intellectual application, during which time it has served man in his successful intellectual conquest of nature, it would therefore certainly seem justifiable to finally attempt to apply this form to the grand totality of the universe.

But the moment this attempt is made, this cosmic totality at once appears as the handiwork of an infinite power, endowed with will, whose potential expression remains forever constant. Not until then does our conception of the universe attain the desired completion. This powerful will is the primary ground of matter and mind. The laws of nature are the laws of his will; and, in the words of the Psalmist: "My covenant will I not break, nor alter the thing which is gone o

Thus, by applying the function of judgment, which has been verified in experience, to the totality of the universe, we attain a comprehensive philosophy of the universe and of life, at once satisfying to our desire for knowledge and in which the concept of deity likewise finds its appropriate place.

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FIFTH DIVISION

THE METHODS AND AIMS OF AESTHETICS

35. THE CONCEPT AND THE PROBLEM OF AESTHETICS

Man's aesthetic nature rests upon a peculiar psychical principle which has been greatly differentiated and has become exceedingly complex in the course of the evolution of our civilization. Its distinguishing characteristic consists in the fact that the mere contemplation of certain objects and processes of our environment, works of nature and works of art alike, gives rise to feelings of pleasure and pain, without at the same time exciting any passionate desires. *Kant*, who was the first to recognize this quality of aesthetic feeling, therefore described it as "disinterested satisfaction."

The aesthetic feelings however, almost invariably impel us to form judgments concerning aesthetic objects. We ascribe the predicates of these judgments, such as, beautiful, attractive, interesting, or homely, unattractive, monotonous, to the objects themselves, as attributes which belong to them objectively. We furthermore state these judgments in the universal form and we even very frequently defend our opinion against contrary views with considerable emphasis.

Because of the important influence of aesthetic taste upon the life of the individual as well as upon the general development of civilization, and furthermore, because attention has thus been directed to new aspects of the soul and its activities, the problem demands scientific investigation. (The subjective and the objective conditions of aesthetic conduct must be carefully analysed. This constitutes the problem of aesthetics.

(The subjective conditions belong wholly to the department of psychology. The aesthetics of recent decades has been chiefly confined to psychological investigations.) The increased insight into the nature of aesthetic taste resulting from these investigations is by no means inconsiderable.

(To-day,) for example, (we know much better) than we did thirty years ago what it is that we really experience when we are inspired and filled with joy by the contemplation of a painting, by the hearing of a symphony, or by the reading of a poem. Psychological aesthetics investigates both aesthetic pleasure and creative art, the latter from the viewpoint of its inspiring impulse, so to speak.

Science has by no means reached an agreement as yet concerning the aims, and even less concerning the methods, of investigating the objective conditions of aesthetic taste. Philosophical speculations concerning the nature of the beautiful, and concerning its cosmic significance, as conceived by *Plato* and *Plotinus* in antiquity, and by *Schelling*, *Hegel*, and *Schopenhauer*

in modern times, still continue to have some influence upon enthusiasts. But of far greater importance are the historical investigations into the origin and development of the various arts, and the studies in the history of culture which reveal how aesthetic taste has been disseminated and enriched and how the gradual education in the appreciation of art and the ever-increasing capacity to regard nature also from the aesthetic point of view has progressed. The subjective conditions of aesthetic taste must be studied psychologically, the objective conditions historically and sociologically. It may be that, after sufficient positive results have thus been gathered, some master mind will then be able to discover the germinal principles of aesthetics revealed in the universe, and thus produce a philosophy of the beautiful and of art.

But we must never lose sight of the fundamental principle of all aesthetic taste. This consists in the fact, already stated, that we experience pure feelings of satisfaction which are wholly free from passionate desires. The fact of aesthetic taste is therefore at the same time a proof that feeling is a distinctly fundamental function of consciousness, which differs from the processes of representation and thought, on the one hand, and from those of desire and will on the other. Inasmuch, therefore, as this pure feeling is never fully realized except in aesthetic taste, this furnishes the only means of understanding the nature and the sphere of pure feeling. The clearest and briefest way to define aesthetics, there-

fore, is to call it the *philosophy of feeling*, after the example of *Heinrich von Stein*.)

This definition of the concept of aesthetics at once describes its position in the system of philosophy and at the same time opens a rich field for psychological, historical and sociological investigations. The first and most important task is the psychological investigation of the aesthetic sense of satisfaction. We must come to a clear understanding of what it is that we really experience through aesthetic taste in the contemplation of art and of nature. We must especially distinguish aesthetic joy from other feelings of pleasure and try to ascertain the basis of this distinction. We must furthermore endeavor to penetrate into the soul of the creative artist in order to appreciate the ideas and motives which control and inspire him. Neither are we permitted to confine our investigations to a single individual.

The social factor plays a far more important part in aesthetics than is generally supposed. Our own aesthetic taste is largely influenced by fashion as well as by other characteristics of the age, and the creative artist, in his own distinctive sphere, is perhaps the product of the popular taste, for which his work is intended, to a greater extent than either he himself or others are willing to admit. The sociological significance of art, recognized already by *Plato* and *Aristotle*, must be examined with much greater thoroughness.

This leads to the relationship between aesthetics and ethics, which enables us to arrive at norms, and, without

imposing any limitations upon the genius of the artist or the law of individual taste, to postulate a scale of objective aesthetic values.

Aesthetics is therefore the philosophy of feeling and its task consists in the investigation of the psychological, sociological, historical, and finally, the cosmical and metaphysical conditions of aesthetic taste.

36. THE DEVELOPMENT AND THE SCHOOLS OF AESTHETICS

The term aesthetics, in the sense of a philosophy of the beautiful, was first used by *Baumgarten* (1714-1762). His work on Aesthetics, which appeared in 1750-1758, and intended to fill a gap in the *Wolffian* philosophy, resulted in developing aesthetics into a separate philosophic discipline.

(The word itself (from the Greek *aisthanesthai*=to perceive) really means the theory of sense perception and *Kant* still uses it in that sense. He even calls that part of the *Critique of Pure Reason*, which treats of the theory of sensibility, Transcendental Aesthetics.) *Baumgarten* still retains the literal significance of the word to this extent, namely, that in his usage it describes beauty as the perfection of sensible cognition. In the *Critique of Judgment* *Kant* afterwards employed the expression thus introduced by *Baumgarten* in the sense in which it is generally used to-day. (Consequently the word "Aesthetics" has two wholly different meanings in *Kant*. In his theory of knowledge aesthetics means

the doctrine of sensuous perception, whilst in his work on the judgment it describes the doctrine of pleasure as it is derived from the contemplation of the beautiful.

The word is used in still another, somewhat broader, sense by *Herbart* (1776-1841). He includes the whole of practical philosophy under this term, i.e., everything which appertains to value-judgments. He thus combines the doctrine of morals and of the beautiful under the one general term, Aesthetics. But these variations in the use of the term have now been overcome and at present it is generally understood to mean the Philosophy of the Beautiful and of Art.

Thus, whilst the name of Aesthetic is of comparatively recent origin, its subject-matter, art and the beautiful, attracted the attention of philosophers comparatively early. *Plato* devoted one of his dialogues (*Hippias Major*) to the discussion of the concept of the beautiful. In his other writings he also indulges in frequent allusions to the idea of the beautiful which he associates very closely with love. *Aristotle* outlined a theory of poetic art, particularly of tragedy, in his celebrated poetics; and *Horace* made frequent use of *Aristotle* in writing his *Ars Poetica*. Two profound philosophical treatises concerning Beauty, both of which are still worthy of serious consideration, have come down to us from *Plotinus*, the Neoplatonist. We also find occasional contributions to aesthetics in scholastic philosophy, but it is not until the eighteenth century, with its rich development of the life of sentiment, that

the scientific investigation of the sense of beauty reached its maturity.

Shaftesbury, in England (1671-1713), *Home* and *Burke* in Scotland (1728-1797), the former by means of his aesthetic philosophy of morals, the latter through their psychological aesthetics, made large contributions to our knowledge of the respective psychic processes, and exerted a profound influence upon German philosophers and poets. Among the French writers on aesthetics of the seventeenth and eighteenth centuries, *Dubos* in particular made valuable suggestions in his *Reflexions Critiques* (1791), which have only very recently met with the appreciation which they deserve. *Dubos* thinks that the pleasure of aesthetic taste is due to the fact that it furnishes the mind agreeable exercise. We shall return to this very important suggestion in our own presentation of aesthetic taste later on.

Subsequently, after *Winckelmann's* attempt to discover the ideal of beauty in ancient art, *Lessing's* effort to distinguish the specific task of poetry from that of painting and sculpture, and *Herder's* belief that he had found the original source of poetry in the depths of popular sentiment, *Kant* finally undertook to furnish a scientific foundation for aesthetics in his *Critique of Judgment*.

The happy inspiration which led *Kant* to the investigation of the judgment of taste rather than the beautiful, and his contention, as correct as it is important, that our delight in the beautiful is a disinterested one,

i.e., not attended by desires, still determines the content and tendency of philosophical aesthetics.

The Kantian aesthetics was thoroughly elaborated by *Schiller*. It was *Schiller's* favorite theory that the appreciation of the beautiful is peculiar to man, and that it is the source of knowledge and morality as well as of culture generally. This idea appears already in "The Artists," a poem which was written before *Schiller* had become acquainted with the writings of *Kant*. But this view is untenable and, in the light of the modern theory of evolution, must be discarded. But the derivation of art from the play-instinct, as we find it explained in the letters on *The Aesthetic Education of Man*, is one of the most important and suggestive ideas which has been produced by aesthetics. It is only very recently that we have begun to properly appreciate the bearings of this theory and to develop the fundamental thought of *Schiller* more fully.

Hegel, *Schelling* and *Schopenhauer* have devoted considerable attention to aesthetics from the viewpoint of the metaphysics of Beauty and of Art. *Hegel* regards art as the lowest stage of the objectification of Absolute mind; religion and philosophy forming the higher stages. According to his view these three stages represent an evolving series of succession and differentiation, art during antiquity, religion in the middle ages, and philosophy in modern times. *Hegel* regards beauty, especially artistic beauty, as the radiance of the idea embodied in matter. This suggestion has been more

fully elaborated in several directions. The aesthetic treatises of *Fr. Vischer* and *Carriere* are written in the *Hegelian* spirit. The works of the former still remain the most comprehensive and many-sided presentation of this discipline which we possess. *Schelling* regards the whole creation as a work of art, and according to *Schopenhauer*, art is the climax of all mental achievement, because it is the expression of pure, unalloyed intellect completely superseding the blind and idiotic will-to-live. *Schopenhauer* regards music as the most splendid of all the arts. This is the art that furnishes the sublimest revelations of the things which are accessible to art alone.

Herbart, in opposition to the theory which regards the ideal content of that which is represented as the source of aesthetic satisfaction, thinks that the nature of beauty consists only in certain forms and relations. This species of aesthetics, as the science of form, has been worked out by the Herbartian, *Robert Zimmerman*, to whom we are also indebted for the first history of aesthetics.

The theories which we have thus far considered have all followed the speculative method. But *G. Th. Fechner*, in his *Preliminary Studies in Aesthetics*, which appeared in 1876, introduced an entirely new method of treatment. For the older method which proceeds deductively from general principles, he would substitute induction from observed facts, and thus ascertain the laws of aesthetic pleasure empirically

and by purely experimental methods. *Fechner's* extensive experiments, and his penetrating psychological analyses have resulted in many valuable discoveries besides greatly stimulating the spirit of exact inquiry. *Fechner's* distinction between the direct and the associative factors in aesthetic judgment, is an exceedingly valuable discovery. Certain sense-impressions, such as simple saturated color effects, or color combinations, sounds or tones, as well as certain forms and figures excite a direct or elementary pleasure. On the other hand, the larger paintings, statuary, and especially poetry, are aesthetically effective only indirectly as they excite ideas and feelings by association.

Investigation into the laws of artistic creation and of aesthetic taste are still being assiduously pushed forward by means of experiment and analysis in the spirit of *Fechner*.

Oswald Kuelpfe read a brilliant and very instructive paper at the Psychological Congress held in Würzburg (1905), on the results and problems of experimental aesthetics, which has been published in the report of this Congress. The analysis of aesthetic taste has been materially advanced during recent years, particularly by *Theodore Lipps*, *Konrad Lange*, *Johannes Volkelt*, and *Hugo Spitzer*. By instituting a magazine devoted to aesthetics *Max Dessoir* has established a central organ which contains many valuable contributions. Among the new viewpoints which are particularly suggestive

we note the concept of "fellow-feeling"¹ (*Einfühlung*) introduced by *Lipps*, and of "conscious self-illusion" introduced by *Konrad Lange*. *Lipps* starts with the presupposition that every aesthetic object represents a living being, and calls the psychic state, which we experience when we project ourselves into the life of such an object, a "fellow-feeling," (*Einfühlung*). *Lipps* discovers fellow-feeling (*Einfühlung*) even in the conception of simple geometrical ornaments as well as in the contemplation of nature. He has applied this principle consistently and most suggestively to all the arts. *Konrad Lange*, on the other hand, finds the chief characteristic of aesthetic taste in the fact that we experience a conscious self-illusion in the contemplation of works of art. We never forget that we have only a copy, and not the real object, before our eyes. Every work of art possesses two contrary elements, namely, one that enforces the illusion and one that corrects it, and aesthetic taste consists in this oscillation between phantom (*Schein*) and reality (*Wirklichkeit*). It is impossible, in the constant oscillation of the feelings, to distinguish accurately between real observation and mere fancy. We shall now endeavor to give a brief sketch of the various tendencies and ideals of modern aesthetics.

¹ The concept *Einfühlung*, here translated "fellow-feeling" is to express the complex process of individualizing an object and being absorbed in it, the act of reading a meaning into other beings and our consequent feeling of fellowship with them.
Trans.

Speculative aesthetics has not yet been superseded with anything like the completeness with which this has taken place in the case of speculative psychology (see above p. 25 and p. 35), but in this discipline likewise the matter of absorbing interest is the experimental method of treatment. The subdivisions of Empirical Aesthetics are *normative* or technical and *descriptive* or analytical.

Normative aesthetics establishes rules for the artist and standards for the critic. The artist's rules mostly appertain to the technical aspects of art and they are commonly known under the specific term "*technique*." These vary in the different arts both in respect to form and significance.

Practical efficiency in the constructive arts, such as architecture, painting, and sculpture, requires a liberal preparation in the way of technical and scientific training. The principles must be mastered before the constructive task can be undertaken. The difficulties of technique frequently cause technical accuracy to be mistaken for artistic finish. It is to be observed, therefore, that whilst technique is of vast importance it is at the same time very easily over-estimated.

The technics of music likewise require thorough study which is at the same time exceedingly difficult. But here there is far more emphasis placed upon the specifically artistic, and the distinction between technical accuracy and musical merit is thus more strictly observed.

Finally, in poetry technics is a matter of wholly sub-

ordinate consideration. Language, the instrument of this art, is used by every one alike. And, at least for drama, there is an advantage in being somewhat familiar with the requirements of the stage. Clever technics alone are, however, no guarantee of dramatic success; although it cannot be denied that it is possible to compose acceptable drama with but little stage ability.

We note therefore that technical aesthetics is of minor importance in poetry, but highly important in the plastic arts and in music. But, no matter what its practical importance may be, it never penetrates to the central principle of aesthetic problems. It deals with the external expressions rather than the motive principles of artistic production.

(Descriptive or analytic aesthetics,) on the other hand, tries to explore this principle as far as it possibly can. It seeks to discover the conditions which inspire artistic productions on the one hand, and on the other hand it aims to explain how the finished product affects society. Its field of investigation includes the mind of the artist, the stage of culture, and the peculiar tastes of the period. Aesthetics thus largely resolves itself into psychology and history.) As a matter of fact we even find that a combination of the psychological and historical methods are the most effective means of acquiring a satisfactory understanding of any piece of art.

In addition to these distinctions which are based upon the methods and aims of aesthetics, there are certain tendencies in evidence among recent writers in which

the theory of the specific sphere of art forms the dividing line. We refer to *Idealism* and its antithesis, *Realism* or *Naturalism*.

According to aesthetic idealism the end and purpose of all art is to lift mankind to higher spheres of "purer reality" and to unfold the profounder depths of man's nature by the portrayal of the things which are thrilling in human experience; to the end that we shall feel uplifted, purified, and at the same time revived for the common duties of life. This theory therefore demands the elimination of everything which is unchaste, vulgar, or even commonplace from artistic representation.

Naturalism on the contrary contends that art should exhibit the world as it is; that only the most accurate and painstaking consistency of representation is worthy of the artist. Even though there is much that is hideous and repulsive, it is by these very things that the artist will produce the most profound and effective results. Naturalism has not only produced creditable works of art, but it has likewise defended its theory with much energy and skill.

Several new tendencies have arisen in recent years which strive towards a kind of synthesis of naturalism and idealism. But these efforts have not as yet met with much success. *Symbolism* in painting and in poetry tries to do more than merely portray what is objectively given. It aims to incorporate an element of mystery in its forms and words, which as a general thing is comprehensible only within the circle of the

initiated. *Impressionism* tries to reproduce the momentary impression of the artist with the greatest possible purity and completeness, which, however, frequently results in confusion and ambiguity. It may be said in a general way that there is a kind of *Neo-romanticism* manifesting itself in art which aims to mould and to deepen life through the instrumentality of art.

In our opinion it will be impossible to determine the merits of the respective tendencies with any degree of scientific precision, without first placing aesthetics upon a genetic and biological basis, thus endeavoring to interpret beauty and art in their respective origins and in their significance for the preservation of life. We shall now undertake to sketch an outline of such a system of aesthetics.

37. GENETIC AND BIOLOGICAL AESTHETICS

We have learned from *Kant* that the aesthetic judgment does not consist in referring "the idea to the object by an act of the understanding," but "to the subject and the feeling of pleasure and pain." The judgment of taste, according to him, is not a cognitive judgment. It does not describe any quality of the object; but in it the subject experiences its own reaction upon the idea.)

The pleasure derived from the contemplation of the beautiful is, however, according to *Kant*, to be distinguished from our enjoyment of the agreeable and from our delight in goodness. The agreeable, as well as the

morally good, is influenced by the faculty of desire, whilst the approval of the beautiful is a "disinterested" satisfaction, or a pure feeling, so to speak. *Kant's* investigations have transformed, in fact subjectivized aesthetics. It would seem that he has conclusively proved that the central problem of aesthetics must forever remain the effort to penetrate as far as possible into the nature of the aesthetic taste.

Schiller's allusion to the analogy of play for the explanation of the nature of aesthetic taste, as previously noted, marks an important step in advance. In *Schiller's* view, play is the activity of excess energies, i.e., such as are not absorbed in procuring the necessities of life. *Herbert Spencer* interprets play similarly, whilst *Lazarus*, who is thinking more particularly of the sports of adults, explains play by referring it to our need of recreation. On the other hand, *Karl Groos*, who has made a thorough study of the games of young animals and of children, regards play as preparatory training for the serious duties of life.

If we remember that in play the enjoyment comes from the activity itself, and not from any ulterior purpose to be accomplished by the act, we will be in position to harmonize these interpretations of play and apply them to the explanation of aesthetics. Whenever we undertake any serious pursuit we are conscious of a purpose to be served, a task to be performed. The idea of this purpose stimulates our efforts. The aim, constantly borne in mind, furnishes the impulse by

which we surmount difficulties, the fortitude by which we endure inconveniences, such as naturally attend every undertaking. It is different, however, with play. Here pleasure results from the mere fact of keeping our aptitudes agreeably occupied. This delight in play, which proceeds from the exercise of physical and psychical energies, is only a special case of a general biologico-psychological law which has hitherto received but very little attention.

There is a sense in which all the organs and functions which have been developed in man's whole psychophysical organism during the process of evolution possess a natural tendency towards activity. This activity, objectively considered, is a demand, i.e., a condition of the preservation and growth of the human organism itself. It is a demand for the simple reason that organs and functions which find no occasion for exercise are in danger of atrophy. Members of the body which are not exercised for a long time become stiff, and, in case the inhibition of their functions is prolonged, they may even become permanently useless. Children, who become deaf during their third or fourth year, as a rule also lose their power of speech, because this function is no longer stimulated by the audible speech of others. This demand for the exercise of the various functions is soon reflected in consciousness, just as in the case of the other demands of the organism. This gives rise to a series of subjectively experienced longings which we shall call *functional demands*. As

a matter of fact, it is true of every function that prolonged inhibition is associated with pain, vigorous exercise with pleasure. The pleasure derived from play therefore is nothing more than the enjoyment resulting from the satisfaction of functional demands.

The same is likewise true of aesthetic enjoyment. We therefore regard aesthetic enjoyment as a species of functional gratification, i.e., as the pleasure resulting from the exercise of various psychic functions.¹ It is due to this circumstance, as *Kant* so happily and pertinently observed, that pleasure of this kind does not excite desire. It is due to the same circumstance that aesthetic enjoyment is so nearly akin to the play impulse. This natural relationship, however, must not be regarded as identity. The functional enjoyment experienced in play, is indeed similar to aesthetic pleasure, but it is not the same. Aesthetic enjoyment, in its higher forms, is associated with a class of psychical functions which never become active to any appreciable degree in play.

The characteristic feature of aesthetic functional enjoyment is the fact that it is produced by the contemplation of objects and processes. By contemplation we do not simply mean such attentive looking and listening as we commonly experience upon visiting art galleries, concerts or theatrical performances, but even those peculiar psychic states which accompany the reading of poetry. (*Aesthetic enjoyment is therefore a dis-*

¹The Frenchman, Dubos, has expressed himself similarly.

tinct kind of functional delight which is brought about by contemplation.

Even sense-perceptions, especially those of sight and of hearing, but occasionally those of touch as well, are frequently accompanied by elementary aesthetic feelings. We find that simple colors, and in a still higher degree combinations of colors and complicated effects of light and shade, as presented for example in the rainbow or the starlit heavens, produce in us a high degree of aesthetic satisfaction. The aesthetic feelings produced by geometrical ornaments and other forms are still richer and more varied. The exercise of the function of sight is, in these cases, exceptionally pleasurable. We do not, however, seek the source of satisfaction in ourselves, but in the object which furnishes the occasion for this pleasurable exercise, and we call such an object *beautiful*. The source of such an aesthetic judgment, however, so far as it is made independently and is not the mere thoughtless concurrence in the verdict of others, is never anything more than the functional enjoyment actually experienced. The qualities of the object externally present are, without exception, only the mediate cause of the aesthetic judgment. This is clearly shown in the case of fading sensitivity. An object which appears beautiful to us when seen once or twice, becomes indifferent when constantly in our presence. The object has not changed, but our functional enjoyment has become less sensitive.

Among audible perceptions we find, in the first place,

that simple tones, but more especially, rhythmically arranged series of tones and noises, produce elementary aesthetic effects. The pleasure in melody and in musical symphony, on the other hand, springs from the gratification of higher and more complex functional demands. Rhythmical tone-series frequently lead us to perform rhythmical motions. In these cases it is quite evident that it is the functional pleasure that produces the aesthetic satisfaction. This becomes apparent similarly in the aesthetic effect of tactual perception, as has recently been observed in the deaf-blind.¹ In their case pleasure follows the tactual sensation of such objects as lead them to the performance of agreeable and rhythmically arranged tactual movements.

Elementary aesthetic feelings therefore arise when our sense-perceptions satisfy our sensory functional demand in an agreeable manner and with a sufficient intensity.

Aesthetic enjoyment, however, becomes incomparably more varied and rich, when the objects affecting us not only engage our senses agreeably, but our ideas and thoughts as well. A painting or piece of sculpture, yields us far greater and more enduring pleasure in proportion as we are able to understand and interpret its forms. The higher the degree to which the objects and events represented excite the activity of our memory and imagination, the more they furnish food for thought, so much the more intense, so much the richer

¹ Cf. p. 33.

will be the aesthetic enjoyment, and so much the less easily will it relapse into indifference. We experience this aesthetic gratification of the functional demands of our intellect most unmistakably in the art of poetry. The words of the poet, as mere sense perceptions, are quite meaningless; they are effective only by means of the ideas, thoughts and feelings which they inspire within us. The so-called transparency of many a poem is certainly not brought about by the senses, but by the imagination. *Grillparzer* has strikingly remarked (XV. 43 ed. *Sauer'schen Ausgabe*), that in poetry objectivity does not come from without, but that it really issues from within. Whenever we succeed in entering easily into the poet's thought, understand his meaning, and have our imagination quickened by his imagery, that alone is already sufficient to produce in us a high degree of aesthetic enjoyment.

"Es lockt uns nach und nach, wir hören zu,
Wir hören und wir glauben zu verstehn,
Was wir verstehn, das können wir nicht tadeln
Und so gewinnt uns dieses Lied zuletzt."

The philosophical lyrics of *Schiller*, difficult passages in *Goethe's Faust* become aesthetically effective only after we have succeeded in grasping the poet's thought, reproducing it in our own minds and developing it to further conclusions. As long as this has not been attained, the functional demand of our intellect has been inhibited and the aesthetic effect is absent. We frequently experience a similar difficulty in studying the

paintings of modern artists, when the maze of colors and figures prevents the discovery of the plan of the composition and the unraveling of the meaning of the whole. Such works of art frequently give a high degree of satisfaction to our sensuous functional demands, but the correlated inhibition of the functional pleasure of the intellect prevents the production of any lasting aesthetic effect.

On the other hand, the sight of extensive manufacturing establishments, machinery, ingenious inventions and other contrivances of technical skill, is prone to produce a high degree of aesthetic effect. This has been strikingly set forth by *Josef Popper*. The splendid achievements of mathematics likewise furnish aesthetic enjoyment, as *Sophie Germain*¹ the French mathematician has very beautifully described it. In both these cases the aesthetic effect springs solely from the functional pleasure of the intellect. This functional pleasure of intellect forms the content of those psychical experiences which in ordinary life we are accustomed to describe by the term theoretical interest. Whatever occupies our intellect agreeably interests us, i.e., we find it interesting.

But in recent years it is just this word "interesting" that we hear used so frequently in the case of aesthetic judgments. As a matter of fact we are even accustomed to make a distinction between the "beautiful" and the "interesting." The concept of aesthetic merit has

¹Cf. Jerusalem. *Gedanken und Denker*. 94 ff.

become broader. It no longer merely comprehends the beautiful in the narrower sense, but the interesting as well, i.e., whatever furnishes the intellect functional pleasure.

(The functional pleasure of the senses and the intellect which we have thus far discussed has, however, only acquainted us with the beginnings of aesthetic enjoyment, the approaches to the problem, so to speak. If we would discover the real secret of the exultation produced by the beautiful in art and nature we must remember that emotion is likewise a fundamental function of consciousness which craves exercise.) Our organism really demands emotional excitement, and the satisfaction of this demand is frequently a pleasure of the most intense kind. Adapting the English term "emotion," the equivalent of "feeling," let us call this demand the functional demand of emotion. The peasant, who ploddingly follows the plow throughout the week, looks forward to a tilt with his comrades at the end of the week. This quickens the circulation of his blood and he finds the excitement associated therewith quite beneficial. The demand of the Roman populace upon the emperors for bread and gladiatorial contests (*panem et circenses*) is familiar to all; bread to appease their hunger, contests to satisfy the functional demand of emotion. The profoundly analytic fable of Hans, who wished to be taught how to tremble with fear, clearly shows to what extent even pre-scientific psychology recognized the actual existence of this demand.

(Owing to the central character of all emotion, the functional pleasure of emotion penetrates psychic life much more profoundly than that of the senses and the intellect. In the case of the emotions the excitement is much more widely diffused, it penetrates much deeper and, as a consequence, it frequently produces effects which shock, and not infrequently permanently change, the entire organism. It is in this aspect of consciousness that we find the source of those psychical dispositions generally called "the passions," which at times operate with destructive violence, and again become the motive force of true greatness.

We describe whatever discharges the functional enjoyment of the senses as agreeable or pleasant; whatever engages the understanding agreeably, we call interesting. But language has developed the terms, fascination, fascinating, and charming, to express the processes and activities which are attended by the functional pleasure of emotion. Games of chance at high stakes, perilous mountain climbing, and such like, have a peculiar fascination for many men. This is due to the excitement to which they give rise, and the functional pleasure of emotion to which it leads.

This functional pleasure is therefore the source of the richest and most intense aesthetic enjoyment. We shall, first of all, endeavor to illustrate this by an example, using *Schiller's* well known poem, "The Diver." The thrilling recital of the story excites our imagination and furnishes food for thought. The

functional pleasure of intellect is thus quickened. The poem produces an aesthetic effect even by this fact alone. But the profounder and more intense effect only begins after the fortunes of the daring youth arouse our sympathy; when we plunge with him into the whirlpool, experience with him all his terrors, and share his joys, as he successfully returns to the surface again. We listen to his story about the monsters of the deep with ever increasing interest, become indignant at the cruel sport of the king who forces him to repeat the performance; our sympathy with the king's daughter and her budding affection waxes warm, our agitation reaches its climax as we read the closing line: "The waves bring back the youth no more!" The torrent of emotions to which we may surrender ourselves without restraint and without regard to the reality of our environment, the experience of such purely human emotions which could rarely be realized in ordinary life; all these combine to produce a wide variety of functional pleasure of great intensity, and it is just this kind of functional pleasure of emotion that constitutes real aesthetic enjoyment.

The destinies of Antigone, Hamlet, Macbeth, Othello, King Lear, Maria Stuart, Wallenstein, Faust and Gretchen, and many other characters, familiar to us in the dramas of the world's literature, are to even a higher degree calculated to discharge intense emotions. At the theater the functional pleasures of sense perception and of intellect coöperate with those of emotion, modifying

and intensifying the whole, though at times, perhaps spoiling the effect. But the essential element after all is always to be found in our personal sympathy with the characters, the functional pleasure of emotion, which is produced in us by an intelligent appreciation of the artist's product.

Paintings and sculpture likewise tend to awaken the functional pleasure of emotion in the beholder, provided he succeeds in correctly interpreting the facial expression, the bodily attitude, the grouping of the figures, and a fellow-feeling (*Einfühlung*) with the artistic composition. Whatever facilitates a comprehension of the meaning underlying the representation greatly facilitates the fellow-feeling (*Einfühlung*), whilst severely complicated motives, remote from the range of our ideas, fail to produce the functional pleasure of emotion.

It is universally conceded that, among the various arts, music produces the most intense emotional effect. This is due to the circumstance that in the case of music, our emotions are affected directly by the sensuous perceptions of tones, without any intermediation on the part of the intellect. The really musical effect will, therefore, be produced with greater purity and effectiveness by the so-called "absolute" music, without text accompaniment. Individuals, however, whose inclination and talent for music is less marked will be more readily and deeply affected by songs, the words of which are familiar to the understanding. In the musical drama of our own day, as developed by the genius of *Richard Wagner*, all three

of these species of functional pleasure, the sensuous, the intellectual, and the emotional are effectually stimulated. The consequent aesthetic satisfaction is therefore peculiarly intense and lasting. To be sure it not infrequently occurs, in the case of these compositions, that the sensuous interpretation of the tone sequences is not immediately successful; or perhaps, that the text, which is frequently difficult, is not promptly understood. This inhibits the sensuous and the intellectual functions and thus prevents the development of the functional pleasure of emotion. But if we overcome the difficulties of interpretation by repeated attendance upon the performances, the total impression becomes proportionately stronger, and, owing to the well-nigh inexhaustible wealth of motives presented, it is not apt ever again to relapse into indifference.

It is evident therefore that aesthetic satisfaction of every description is a species of functional pleasure, and, as such, is closely related to play. The effect of aesthetic functional pleasure, however, is quite different and more profound than play. We are in the presence of a work of art, or some natural scenery, which has given rise to aesthetic functional pleasure. The object really exists, we perceive it with our senses, we recognize in it the source of our joy, we attribute our sense of pleasure and exaltation to it. Then, by virtue of fundamental apperception, we discover that our joy is the effect, the potential expression produced by the object before us. In this manner aesthetic judgments are the outgrowth of func-

tional pleasure. It is not necessary to assume a specific psychic faculty, a "faculty of aesthetic judgment," as *Kant* does, for the explanation of these judgments. Fundamental apperception is amply sufficient to explain the origin of such judgments. In aesthetic satisfaction we feel agreeably moved, interestedly engaged, deeply agitated; in brief, our state of mind is equally remote from desire and volition; it is a purely affective state. Hence it is but natural that we should locate the source of our pleasure outside ourselves rather than within, and there is exactly where we find it, namely, in the artistic production which affects us. We therefore describe the object, which discharges our aesthetic functional pleasure, as noted previously, in accordance with the kind of functional pleasure which it produces, as agreeable, pleasant, interesting, fascinating or charming. The most general predicate, however, which we attribute to objects which affect us aesthetically, is that of beauty. We call everything beautiful, in the broadest sense, which tends to discharge aesthetic functional pleasure.

It follows, as a matter of course, from this theory of aesthetic pleasure that aesthetic judgments must necessarily be widely diverse. The attitudes towards the various species of functional pleasure show a wide variety in the evolutionary processes among different individuals. We can readily understand, therefore, why one and the same object should not be adapted to produce the same kind and the same degree of functional pleasure in all spectators alike. Even the same human being is not at

all times equally receptive to aesthetic impressions, just because his functional demands do not remain constantly the same. There are works of art, nevertheless, which have been characterized as beautiful for hundreds, even thousands of years and by people of widely diversified characters. *Sophocles' King Oedipus*, which produced profound aesthetic effects when rendered in the original in Athens and other Greek cities twenty-three centuries ago, is to-day played upon the modern stage in translation, in the presence of audiences whose state of culture must certainly differ widely from that of the original Athenian audiences. And yet this performance, even now, profoundly stirs thousands of its spectators. This fact would seem to justify the conclusion, that the drama possesses objective properties which are capable of producing profound aesthetic functional pleasure. The same is true of much ancient Grecian architecture and sculpture, as well as of many paintings produced by the old Italian and Dutch schools. We are justified in ascribing *objective beauty* to these productions of art because it is understood that we mean those properties which tend to discharge functional pleasure in a multitude of individuals. The discovery of these conditions must certainly present a tempting field of scientific inquiry, and one which is by no means unpromising. *Objective beauty*, however, is by no means identical with *absolute beauty*. The latter is, in view of the thoroughly relative character of the concept of beauty, a wholly meaningless term.

The term beauty, however, in addition to its broader significance discussed above, possesses still another, narrower meaning. Whenever we call an object beautiful, and do so with complete conviction, I am tempted to say, whole-heartedly, we do not merely mean that it meets with our approval. We experience a sense of gratitude towards the object which we call beautiful in this narrower sense, for the satisfaction which it affords us; a kind of *affection*, which, whenever it attains a high degree of intensity, we might even call *love*. Every one of us, no doubt, affectionately treasures in his heart a number of forms, creations of certain artists, which he dearly cherishes. We esteem them among our most precious possessions, and we are disposed to zealously guard and defend them against derisive criticism. The artist who understands how to inspire such love for his creations has attained the height of aesthetic effect. We thus discover a new element in functional pleasure, the very element by which aesthetic enjoyment is most clearly distinguished from play.

The intimate relation of love and beauty has long been recognized and frequently discussed. The usual interpretation of their relation regards (objectively existent) beauty as the cause, and love as the effect. But more exact investigation reveals the fact that this interpretation does not entirely accord with the facts. The beauty of woman, no doubt, exerts a peculiar charm which may inspire love. It is certain also that in antiquity the beauty of boys frequently excited love in men. But the

reverse can likewise be the case. Men and things, by means of which we find our condition improved, and which awaken within us a feeling of affection and love, become increasingly beautiful in our eyes by virtue of these emotions. Beauty is not only the cause, it is perhaps more frequently the effect of love. Beauty radiates from the inmost depths of our soul upon the objects of our affection and continually surrounds them with new charms.

Any one who will give attention to the facts can verify the beautifying power of love from his own experience. The mother regards the child which she loves as beautiful, even though it appears very ill-favored to others. The awkward style of a book, which for some reason or other has become a favorite with us, frequently acquires a peculiar charm. *Schopenhauer's* enthusiasm for the Latin translation of the Upanishads, made from a Persian version by *Anquetil du Perron*, and absolutely devoid of literary taste, is a remarkable example of this beautifying power of love. The development of our appreciation of nature, however, furnishes the clearest proof of the correctness of our contention. In antiquity it was the loveliness of the summer landscape, offering pleasantly shaded walks and resting places in the meadows and on the banks of murmuring brooks, that excited admiration. Man learned to appreciate the sublime beauties of Alpine scenery only after he had become somewhat wearied of culture and gladly retreated to the solitude of the mountains. In brief, man found nature beautiful only after he had learned to love her.

Whenever a work of art excites functional pleasure of sufficient variety and intensity to move our heart to cherish its forms, it is clothed with a new and peculiar beauty. A beauty that is filled with life irradiates from this love and is reflected back again upon the artistic creation itself. It is this beauty, which is born of love, that we call the true, and veritable beauty which fills the heart with gladness. The works of art, which we call beautiful in this sense remain with us throughout our whole life. They enrich our very soul. They increase our happiness. Such creations of art penetrate into the inmost depth of our personality, and there is no better index to a man's character than the works of art which, in this narrower sense, he regards beautiful.

By way of brief and general definition we may therefore say that *aesthetic pleasure is functional enjoyment produced by contemplation*. Each one of the three species which we have discussed is capable of yielding aesthetic enjoyment independently. But the gratification becomes richer and more varied, as well as more intense and thrilling when the functional pleasures of the senses, intellect and emotions are combined. Their combinations vary for the different arts. Sculpture and painting, first of all, affect the senses and excite our feelings through the understanding. Poetry begins with the functional delight of the intellect and inspires the emotions through the agency of the intellect. Whereupon the emotions excite the imagination to the production of intuitional imagery, as *Grillparzer* has described it in the

passage quoted above (p. 216). In the case of music the functional delight of the senses passes over, perhaps with the assistance of kinesthetic (movement) sensations, immediately into pronounced emotional effects. This emotional effect, or the functional delight of emotion, always forms the central principle of aesthetic gratification. Whenever the functional delight of emotion does not arise, the aesthetic gratification remains more or less superficial. It lacks the warmth of life. But whenever the functional delight of emotion is produced, the emotion of love described above may follow in its train, from which a new beauty, throbbing with life, is reflected back upon the artist's production.

Aesthetic functional delight therefore differs from other species of functional pleasure, e.g., from play, by the mere fact that it is capable of producing effects which penetrate the deepest recesses of human nature. But there is still another important characteristic which distinguishes aesthetic gratification from play. (Aesthetic gratification, of every description, as we have seen, gives rise to aesthetic judgments. Those who have had the pleasant experiences form the judgments, in the firm conviction of their objective correctness. I regard whatever pleases me as beautiful, i.e., I affirm, by my judgment, that the object which I am contemplating is the source, the potential center, whence I derive my gratification.) Careful introspection and comparison with the experiences of other people, however, finally convinces us that the beauty of the object is constituted wholly by

our subjective states of pleasure. But it would nevertheless be an error if we should entirely eliminate the objective factor from aesthetic judgments. For, at all events, aesthetic functional delight always depends upon some objective stimulus. As we have seen there are works of art which have produced aesthetic functional delight in vast numbers of people and in different ages of the world. These productions must therefore possess certain properties, objectively definable, from which the aesthetic effects proceed. It is the duty of scientific aesthetics therefore to study not only the subjective but the objective conditions of aesthetic gratification as well. And the importance attaching to these objective properties of the masterpieces of art becomes still greater through the fact that it is from them that creative artists learn by what means they may expect to produce aesthetic effects.

This brings us to the second problem of aesthetics, namely, the discovery of the laws governing artistic creation, and the reduction of these laws to practical rules and standards. Because of the fact that artistic genius presents such wide diversity as to make it impossible to establish more than a few general rules, we shall have to treat the questions under this head very briefly. The larger share of the problem here contemplated must be given over to the technics of the several arts.

Creative art in general is the outgrowth of a native dramatic and constructive impulse which is peculiar to the artist. In so far as the pleasure of the artist lies in

the fact of creation itself, i.e., in the functional activity, this creation is likewise closely allied to play. But art soon passes beyond this stage. As soon as culture is developed to such an extent that many feel the need of aesthetic gratification, then the mere satisfaction resulting from the exercise of the creative impulse, which is purely individual and exists for the artist alone, can no longer satisfy. His vocation is to please others and thus to increase the happiness of mankind. His activity thenceforth ceases to be mere play. It rather becomes serious social service, which has profound significance for the development of culture in general.

“Der menschegeist in sonnigern Bezirken
Will nicht nur tätig sein, er will bewirken.”

But productivity demands more from the artist than mere blind surrender to his creative impulse. He requires education. He is obliged to acquire the technics of his art which are the result of long experience and often exceedingly difficult. He feels obliged, and even compelled, to study the great masters in his department, in order to familiarize himself with the means which ordinarily succeed in exciting functional delight among the lovers of art. The public, for which his works are intended, likewise comes within the horizon of his thought.

However, owing to the very fact that an acquaintance with the public for which the works were prepared is an important element in the understanding of the majority of artistic masterpieces, the artist's labor becomes a

factor which belongs to the general history of culture. It is customary, therefore, at present, to interpret the masters of bygone ages through the spirit of the age in which they lived. A history of aesthetics has thus been developed, which has illuminated many problems, removed a number of misconceptions, and contributed much towards a more intimate acquaintance with artists and poets. Sometimes, of course, the appreciation for the universally human, for the permanent in art, is obscured by an excessive one-sidedness in maintaining the historical point of view. We mean by this that the artist does not produce merely for his own people and age alone. As *Thucydides* remarked concerning his history, so the truly great artist may claim for the creations of his imagination, that they are a legacy bequeathed to eternity (κτῆμα ἐς αἰεί) and not a mere act flitting across the stage (ἀγώνισμα ἐκ τοῦ παραχρήμα).

An artist of this type does not simply excite an evanescent functional delight, he also understands how to awaken in our hearts an abiding love for the forms which he has created. And this love, as previously observed, irradiates a vital, emotional warmth and spiritual beauty which are reflected back again upon its object. It is the artist's highest ambition to beget this emotional response.

At its beginning, therefore, artistic productivity is a kind of play, in the form of exercise of the creative impulse, and in the course of the evolution of culture it eventually becomes serious social service, which has for its object the increase of human happiness. In its high-

est degree of perfection, however, artistic creation is a species of wooing. It is when we respond to the artist's wooing that his work appears beautiful to us in the truest and highest sense of the term. *Homer* woos for the sake of Achilles and Odysseus, *Raphael* on behalf of the divine Madonna, *Shakespeare* not alone for the philosophical Danish princes and the ill-fated King Lear, but even for Falstaff, that incarnation of meanness, whose splendid humor, however, brings him closer to our own hearts.

Success in exciting our functional delight and in awakening our love, requires that the artist be imbued with that creative spirit which will enable him, as it were, to breathe into his forms the breath of life. It is the common ambition of all artists to portray living reality faithfully. But it is living reality among the men and things of our environment, that which is vital in the present day events as well as in the course of history that quickens life within us, and that leads us to corresponding reactions. The living reality is nothing more than that which is characteristic in things, that which makes them what they are and gives them their meaning, and that is what is *typical* about them. The idea of the typical, as I have shown in another place,¹ has originated directly from the demands of life. That which is biologically important in the nature of things forces us to concentrate our attention upon itself, and in this manner that which is typical in a number of things of a similar nature is combined into a single idea. We recognize the

¹*Lehrbuch der Psychologie*. 4 Ed., p. 97 ff.

type of each separate thing and regulate our actions accordingly. The artist, however, in a much higher degree than other men, must possess the ability to discern and represent that which is typical in individuals. We always regard the creations of the artist as types, even though they produce in us the impression of real personages. The character of Gretchen, in *Goethe's Faust*, is brought out so conspicuously, with all her individuality, that we could almost write her biography. She nevertheless represents the typical maiden in our mind,—one who is affectionately devoted to her lover, and finally forsaken. We strip King Lear of his royal robes and nothing remains but the father who values adulation more highly than Cordelia's, "Love, and be silent." And it is just because every father has in him an element of resemblance to King Lear, that the Shakespearian drama never loses its effectiveness.

The extent to which the typical constitutes the essence of artistic representation is most apparent in cases where the subject portrayed is an object which in reality exists but once, such as an historical character, a definite landscape, or some individual taken from the environment of the artist. For even in the portrayal of individuality, if he would produce aesthetic effect, the artist must discover the typical element, the characteristic, that which is really vital to that particular object, and bring it to full expression.

The typical element, which is peculiar to every artistic production, associates art with the cognitive func-

tion and with science, in a way which is quite unique.

The typical idea, as we have seen in Section 27, is the antecedent of the abstract concept in the course of the evolution of knowledge. Consequently, since art is naturally adapted to evoke typical ideas, which, together, with complete, lifelike perspicuity, at the same time also exhibit the character of representativeness and of universality, it frequently happens that artistic construction assumes the task of promulgating scientific knowledge, ordinarily expressed by concepts, in graphic representations. Thus art transforms the abstract concept of science into a visible image, surcharged with emotional warmth and actuality, which has frequently been described by the ambiguous term, "idea." The Platonic Ideas are nothing more than concepts which the artistic mind of that profound and ingenious thinker embodied in intuitive thought. This explains how *Plato* could believe in the independent existence of these artistic images of thought, and could ascribe to them the dignity of being the efficient prototypes of things.¹ *Hegel's* theory that beauty is to be defined as "the manifestation of the idea to the senses," (*Werke*, X. 1, 141.), and again, that the beautiful, as the vehicle of the idea, is identical with the true, likewise becomes intelligible, if we simply recall the typical character of every artistic exhibition. It appears to me, however, that *Schiller's* method of comprehending

¹When Natorp, in his work concerning the Platonic doctrine of ideas, regards the idea as law, it appears to me that he ignores the aesthetic and artistic sub-soil of the Platonic doctrine.

the relation of science and art as resting upon the typical ideas, is at once the most profound and the most lucid ever conceived; and this, notwithstanding the fact that his suggestion that the sense of beauty marks the beginning of the cognitive impulse is untenable (see above, Section 36). Artistic imagination frequently anticipates science, as if by divination, and thus prepares the way for further systematic investigation:

“Eh’ vor des Denkers Geist der kühne
Begriff des ew’gen Raumes stand,
Wer sah hinauf zur Sternenbühne
Der ihn nicht ahnend schon empfand?”

However, after science, pursuing her own course, has discovered the secrets of nature and explored the laws of nature’s processes by means of laborious investigation and severe thinking, it again becomes the business of the artist to crown the achievements of science and give them their finishing touch. It devolves upon art by means of its images to put life into the dry formulas and lifeless concepts of science, in order that the masses of mankind may perceive abstract truth with concrete perspicuity, and thus be able to make it their real possession.

“Was in des Wissens Land Entdecker nur ersiegen,
Entdecken sie, ersiegen sie für euch.
Der Schätze, die der Denker aufgehäufet,
Wird er in euern Armen erst sich freun,
Wenn seine Wissenschaft, der Schönheit zugereifet,
Zum Kunstwerk wird geadelt sein.”

Art, however, has always maintained a still more intimate relation with religion. In Greek antiquity, no less

than during the middle ages and in modern times, art has placed its love-inspiring power at the service of religion. The Zeus of *Phidias*, the Moses of *Michael Angelo*, the many magnificent cathedrals, *Raphael's* Madonnas and *Leonardo da Vinci's* Last Supper, are the most sublime, as well as the most fervent appeals to affection on behalf of the ideals of religious faith. Art, however, by the very fact that it inspires pure, disinterested joy, lifts us above commonplace moods, and elevates our hearts to worshipful reverence and genuine piety. This explains why music plays such a prominent part in religious worship.

The relation between aesthetics and ethics, or, to put it more accurately, between art and morality, on the other hand, although frequently discussed, is not quite so clear.

When we speak of the refining influence of art, there is a certain degree of justification for it, as we shall presently see; but this by no means implies that art is obliged to portray virtue as beautiful, and vice as hideous. The artist aims to comprehend the principles of life and activity in nature and in human relations, and to portray them faithfully. It is when he succeeds in catching the really human spirit that his production becomes most truly interesting. The truly great artist can portray coarse physical strength, brutal passion, yea, even sordid selfishness, in such a manner that his descriptions quicken within us the most vivid functional delight. The poet never needs to concern himself about the judgment which popular opinion passes on his characters. Pedantic re-

gard for criticism is very apt to deprive his production of its artistic merit. *Shakespeare's* Richard the Third, and Falstaff even more so, furnish clear proof that aesthetic gratification is entirely independent of ethical value-judgments. *Aristotle's* misunderstood doctrine of tragic guilt, has far too long obscured the real source of pleasure in tragic subjects. Art can never exert its refining influence by preaching morality in any form whatsoever.

Art and morality are nevertheless, most intimately related. Aesthetic gratification is pure, unselfish joy, unmixed with desire. The artist, by furnishing opportunity for the experience of such unadulterated joy, temporarily wafts us away from the egoistic impulses of our common life and lifts us for awhile into sublimer spheres. So long as we are held by the artist's spell, the purely human holds complete mastery in our souls. The mean and contemptible finds no place in our hearts. We have grown to maturity, and discover ourselves on the way towards spiritual freedom. This liberating and purifying influence which characterizes all true art must gradually elevate those whom it reaches to higher levels. Frequent occasion to enjoy the masterpieces of art teaches us to scorn the pleasures which pander to the coarser instincts. The artistic education of youth, which is at present so strongly recommended, and justifiably so, is on this account of vast importance for the moral development of future generations. Furnishing youth with opportunities of enjoying the masterpieces not only intro-

duces them to a rich fountain of unsullied happiness, but at the same time safeguards them against ruinous dissipations. *Interest, unde quis gaudeat*, is *St. Augustine's* striking way of putting it. It is by no means a matter of indifference from what source we derive our pleasures. Art, however, furnishes sources of joy.

“Die seine Gier nicht in sein Leben reisst,
Die im Genusse nicht verscheiden.”

The ennobling influence of art is therefore not brought about by moral exhortation, but rather by the fact that it purifies our pleasures and enlarges our sympathies for everything human.

We have defined aesthetics as the *philosophy of feeling* (Section 35). But we find that the purest feelings proceed from functional activity, since they are without influence on the desires. It is therefore the business of the philosophy of feeling to describe the significance of pure feeling for the psychic life of the individual and for the culture of the race in general. It should, however, give due attention to the objects which are disposed to produce these pure feelings. Our genetic and biologic method of treatment has shown how aesthetic gratification, conceived as functional pleasure, has been evolved from functional demands. This functional pleasure eventually gives rise to a tender affection for the creations of the artist, a love which, in conjunction with functional delight, is the source of beauty. The aesthetic judgments produced by this feeling contain an objective as well as a subjective factor, the study of which forms an

important element in the problem of aesthetics. The creative activity of the artist, in its essential characteristics, likewise becomes clearer by our method of treatment. We have thus exhibited the aims of aesthetic science. We have likewise indicated the methods by which we may hope, through earnest effort, to attain a philosophy of feeling, by which both the aesthetically percipient subject and the aesthetically suggestive object will be accorded their respective places and receive due recognition in the Universe—in a universe of which man is but an insignificant atom, but an atom in which there dwells a yearning to comprehend, to admire, and to love the whole of which he forms a part.

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SIXTH DIVISION

ETHICS AND SOCIOLOGY

38. THE SUBJECT-MATTER AND THE PROBLEM OF ETHICS

The subject-matter of ethics or moral philosophy consists of human actions in so far as they are subject to moral judgment. The subject of moral judgment, however, is not the objective department, but its inspiring motive, the attitude of will and the personal disposition which it reveals. It were quite correct therefore to define ethics as the *philosophy of volition*.

The problem of ethics is composite. We must first of all ascertain the psychological laws according to which moral judgments upon the action of others as well as upon our own, i.e., the laws of approval or disapproval actually take place. The investigation into the origin and development of the moral judgment, such as we here have in mind, really furnishes the preliminary foundation for a scientific system of ethics. This problem is psychological on the one hand, and historical on the other. The attainment of a psychological foundation of ethical theory requires an accurate psychological analysis of all that transpires within us whenever we subject our own

actions as well as those of others to moral judgment. This inquiry must conform to the general aim and method of psychology as described in earlier sections. It must be pursued, not only analytically, but genetically and biologically as well. The origin of the moral judgment, and the moral sentiment which forms its basis, as well as the influences of these processes upon the preservation of the individual and the race must be explained.

Even the superficial observer cannot fail to be impressed by the fact that one and the same act is judged very differently at different periods and by different peoples. It frequently happens that the very thing which is highly esteemed and greatly admired in one period, is condemned in another. And it is likewise obvious that the differences of degree of moral disapproval are of vast significance. Scientific ethics is thus confronted by a task which is exceedingly difficult and tedious; namely, to trace the moral judgment through its evolution from the lowest stages of culture in order, if possible, to ascertain the laws of its development.

When the previous edition of this book appeared there were only a very few preparatory works on the evolution of ethics in existence. This division of the subject has since then been placed upon a more secure foundation, by the elaborate treatise of *Edward Westermarck: Origin and Development of Moral Ideas*. The moral judgment, especially among primitive races, is described and illustrated in this work by an extraordinary array of facts. He also endeavors to show the process by which these

judgments have been modified by the civilized races. This division of the work, however, still requires supplementary investigation. He has, however, laid the foundation for further investigations in this direction also.

The next problem of ethics, which is generally regarded as the most important, can be approached with prospect of success, only after we possess sufficient material which has been collected and prepared by psychological and historical investigation. For, it must be remembered that ethics is also expected to formulate *rules* of human conduct. These rules are to become the governing principles of our actions, and they are to guide us in our decisions, especially in the frequent cases of a conflict of duties. But above all else, these norms are to be regulative in the education of youth. It is in this sphere that they can be most readily employed with salutary effect and thus contribute to moral progress. This *normative* function of ethics was cultivated much earlier and with much greater industry than the theoretico-historical inquiry.

Hence ethics, or moral philosophy, also called practical philosophy, is the *philosophy of volition*. Its task consists in investigating the laws of moral judgment and the formulation of norms for moral conduct.

39. THE DEVELOPMENT OF ETHICS

Speculation concerning the material universe is much older than the reflection upon the nature of man and his spiritual life. The development of ethics, therefore, like-

wise came later than metaphysics. It is true indeed that moral exhortations and rules of life are found already in early poetry and in proverbial aphorisms, but these only reveal the beginnings of moral consciousness, and in no sense any systematic reflection on the subject.

A number of ethical propositions, ascribed to the Atomist, *Democritus*, have been handed down to us; but even these are either of doubtful authenticity, or lacking in unity and coherence. This much, however, is certain, namely, that there was much discussion of ethical problems in the Athens of the fifth century B.C., and especially that an attitude of general skepticism towards the traditional norms prevailed.

Socrates (469-399), the founder of scientific ethics came from this circle of thinkers. As *Cicero* remarks, *Socrates* brought philosophy back from heaven to earth. He regarded reflection upon moral problems as the only inquiry worthy of philosophy. According to his doctrine the essence of morality consists in *clear insight into* the nature of the right. Whoever possesses the requisite insight necessarily conforms his actions accordingly; whoever acts otherwise has not yet attained to complete clearness of insight. This insight is acquired by logical investigation of the concepts of goodness, beauty, justice, piety, etc. The result of such investigation furnishes the philosopher with absolute certainty, which thus renders him wholly independent of the authority of tradition and of popular opinion. *Socrates* maintained this absolute independence unswervingly and for this cause suffered

a martyr's death. This gave his doctrine a tremendous impulse and its influence continues even to the present day.

Antisthenes, a disciple of *Socrates*, and the founder of the so-called School of Cynics, whose most famous representative is *Diogenes*, regards *freedom from want* as the essence of moral independence. The Stoics, who sprang from the Cynics, on the other hand, seek after Socratic independence by means of rational control of the affections. According to the theory of the Stoics, the Sage cheerfully acquiesces in the course of nature, because, in any event matters cannot be improved; and it is this cheerful acquiescence that distinguishes the wise man from the fool, for the fool vainly strives against nature and in this very striving loses his peace of mind. Stoic ethics had a profound influence upon Christianity and thus helped to perpetuate the efficacy of Socratic thought even to our own times.

Aristippus, another disciple of *Socrates*, on the other hand, discovers the secret of Socratic independence in that cheerful *disposition of soul* which refuses to be troubled either by passion or the vicissitudes of fortune. This doctrine as it was further developed by *Epicurus*, found numerous adherents in Graeco-Roman antiquity.

Despite the great importance of knowledge for morality, *Socrates* certainly exaggerated it. *Aristotle* recognized this one-sided exaggeration and insisted that strength of will and habit are likewise of vast importance for morality. He regards virtue as a volitional tendency

which is acquired by habit. *Aristotle*, furthermore, gave expression to the very important principle, that happiness does not consist in the mere passive indulgence of pleasure, but in the rational activity of the soul.

Plato, who is *Socrates'* most famous disciple, was the first to attempt a metaphysical foundation for ethics. The *idea of the good*, which *Plato* frequently identifies with Deity, is the ultimate purpose of all Being; and it is to the Good alone, at the same time, that Being owes its actual reality and meaning. Still more important, in Platonic ethics, is the principle that justice, the quintessence of all the virtues, attains its perfection in the state alone. His ideal of the state, outlined in harmony with this thought, emphasizes the social character of ethics and contains moral requirements which preserve their practical significance even to the present time.

The presupposition, assumed as self-evident, that the end of morality is the happiness (*Eudaemonia*) of the individual is common to all the ethical doctrines of antiquity. Upon this basis, ethics is nothing more than a theory of values and its only problem is to discover the means of happiness. This theory is called *Eudaemonism*.

Christianity, above all else, extended the influence of the fundamental principles of the Old Testament into wider circles. Thus Judaistic ethics rests upon two fundamental duties: namely, love towards God and love towards our fellowmen. Love towards God requires cheerful and unqualified obedience to the divine commands and unreserved surrender to His will. Love for

our fellowmen calls for justice, benevolence, kindness and active charity towards our neighbor and even to our enemy. Christianity places still greater emphasis upon the duty of love, and extends it so as to include all mankind. All mankind are children of God, and therefore, brethren. By this extension of the duty of love to all men, Christianity breaks down the national barriers of Judaism and gives to the world that sublime idea which is still so far from being fully realized, namely, that of universal brotherhood,—the idea of a truly humane obligation of love comprehending all mankind.

Christianity adds to this doctrine of universal brotherhood, the belief in a future life anticipated in the Orphic mysteries of the Greeks (after the sixth century B.C.), of which the Judaism of the Old Testament contained but faint traces. The Christians of the first centuries regarded this life merely as a preparation for the true life after death; when the soul, delivered from the dross of the flesh, shall dwell in the presence of God. The hope of a future life offered a welcome consolation to the multitudes of the poor and oppressed in the Roman Empire. The new doctrine spread with remarkable rapidity among these classes. According to Christ's own teaching, this doctrine bore no relation whatever to renunciation of the world and asceticism. True, He taught His disciples to pay slight regard to earthly goods, but He was far from regarding self-torture as especially meritorious. On the contrary His sermons are surcharged with the joy of life in all its fulness and reality.

The doctrine of universal human depravity came into prominence somewhat later. This gave rise to the attempt to subdue the flesh by fasting and self-castigation. Even if it accomplished nothing more, the hope of a future life greatly increased man's capacity of self-sacrifice; and the importance which it attached to ascetic practices defined the duty of self-control much more clearly and emphatically.

The doctrine of grace, however, had the opposite effect. This doctrine, originating during the first centuries, was systematically elaborated by *St. Augustine* (354-430). The power of the church, the sole dispenser of grace, increased enormously through the declaration of man's total inability to attain salvation by his own power. It appeared more important to the Christian to provide for the salvation of his soul through the observance of external ceremonies than through moral purification of heart.

The independence of the moral consciousness eventually asserted itself and finally prevailed. During the middle ages *Abelard* endeavored to develop a system of ethics independent of religious dogma. The Reformation finds the source of human happiness within the human heart and insists upon justification by faith. This faith is indeed likewise referred to the gifts of grace in later Protestantism. But the intellectual movement which made morality an inner principle of human nature, and, abandoning the attempt to discover the moral principle in external relations, striving rather to base it on human

reason independent of tradition, could no longer be restrained.

During the modern period the largest contributions to our understanding of the nature and characteristics of morality have been made by the English through their thorough investigation of ethical problems. *Locke*, *Hobbes* and *Shaftesbury*, in the seventeenth century, and the Scotchmen, *Hutcheson*, *Hume* and *Smith* in the eighteenth, have rendered invaluable services in this line. They have greatly increased our knowledge of the psychology of moral judgment by a penetrating analysis, thoroughly examined the problem concerning the source of morality, emphasized the social character of morality, i.e., its relation to the common welfare, and most vigorously defended the independent validity of ethical norms, irrespective of religious dogmas.

During the seventeenth century the followers of *Descartes*, in France, tried to produce a metaphysics of ethics. The most noteworthy of these attempts was that made by *Malebranche*. In the eighteenth century the philosophy of the enlightenment, on the contrary, with English thought, especially *Locke*, as their starting point, endeavored to establish the moral laws upon an empirical basis. Their method was to deduce the moral motives from egoistic impulses. This harmonized with the philosophy of materialism.

Spinoza has given ethics a unique metaphysical basis. Man attains the highest degree of happiness and perfection of soul through a love towards God which is founded

on knowledge. Furthermore, since God and the universe are one and the same, according to *Spinoza's* pantheistic world-theory, this love of God means nothing more to him than unreserved surrender to the All, the intelligent subjection of the individual to universal law. The frequently quoted 19th proposition of the fifth book of *Spinoza's* ethics reads as follows: "He who loves God, cannot expect that God should love him in return." Whilst this involves absolute self-abnegation on the one hand, it is at the same time the possession of the most profound spiritual joy, positive and thoroughly optimistic on the other. *Spinoza's* ethics as previously observed, exerted a profound influence upon *Herder*, *Goethe*, *Schelling* and *Hegel*. It is really a cosmological ethics, which, however, takes no account of the social factor, i.e., the creation of new ethical ideas through constant fellowship and association.

Kant took a new departure. In his *Critique of Practical Reason* (1788), he applied the same deductive method to the moral law which he had previously applied to the fundamental forms of the understanding and sensibility when investigating the theory of knowledge (v. ante p. 67.). *Kant* maintains that the moral law is an innate principle of the soul which is valid independently of all experience. He calls this moral law, which can only be of a general and formal nature, the *categorical imperative*. It enjoins us "to act as though the maxim of our action were destined by the force of our will to become a universal law of nature." On the other

hand, however, in a different formulation of his categorical imperative, *Kant* insisted with much emphasis and enthusiasm, that moral ends not only take account of humanity as a whole, but that each individual human being must likewise be regarded as an end in himself. "Act so as to treat humanity, in thyself or in any other, as an end always, and never as a means only." (*Kant, Grundlegung zur Metaphysik der Sitten. IV, 277 der Hartenstein's edition*). The principle which he thus introduced into ethics is of vast importance, and it has not been fully appreciated until recently. Our actions are free and moral only when our will is subordinated to this law. This subordination, however, should be a logical subsumption, so to speak, wholly free from all sentimentality. Otherwise our action is dictated by inclination and not from a sense of duty.

Ever since *Kant*, this antithesis between inclination and duty has been the determining principle in moral judgment. In spite of his sharp severance of these two motives, a logical division which cannot be carried through either theoretically or practically, with such absolute rigidity as it implies, *Kant's* ethics retains an element of sublime grandeur throughout.

Fichte develops the idea of the absolute independence of ethical obligation, its complete freedom from traditional authority resting solely upon the innate moral law, with a sublimity which surpasses even *Kant*. *Fichte* regards the individual conscience as the absolute and infallible judge of good and evil. Moral activity is the

specific duty of every rational being. This duty consists in spontaneous self-deliverance and freedom from everything which is irrational.

Contrary to these theories, which regard our own conscience as the foundation of morality, *Hegel* attributes moral conduct to the influence of *objective mind*. Subjective conscience may err in its estimation of good and evil. Morality is objectified in the family, in society and in the state. This objectified morality is a real power, enthroned above subjective conscience, and authoritatively binding upon the individual. But even morality, as the phenomenal form of objective mind, is not by nature unchangeable and permanent. Each political organization has but a limited share in the objectivation of the idea of moral freedom.

If we strip these Hegelian theories of their metaphysical vesture, we discover several very important, permanent truths; namely, the super-individual (—i.e., the *social*—) character of ethical obligations, their authoritative objectivation in the state, and the theory of constant growth. Recent ethics has once more appropriated every one of these principles, without, however, always fully acknowledging its indebtedness to *Hegel*.

The English philosopher, *Jeremy Bentham*, is the founder of so-called *Utilitarianism*, to the more careful consideration of which we shall return a little later. This theory starts from the idea of practical utility and constantly applies its principles to positive legislation.

We shall pass over the psychological and metaphysical

solutions of the ethical problem, as presented in the works of *Beneke*, *Herbart* and *Schopenhauer*, and direct our attention to *evolutionary ethics*; i.e., the trend of thought which is characterized by the influence of the Darwinian theory of evolution.

According to *Spencer* and *Darwin*, it is practically impossible to investigate any portion of mental life otherwise than in its historical evolution and in its biological consequences. *Carneri* was the first to apply this principle to the science of ethics, whilst *Herbert Spencer* thoroughly elaborated it in his *Principles of Ethics*. All recent systems of ethics are more or less evolutionary, or they at least define their attitude to these principles. The fundamental rule of the evolutionary principle is that moral action must be construed as a portion of actual life and be interpreted as a condition for the preservation of the individual and the race.

Friedrich Nietzsche took pride in describing himself as an anti-moralist. This placed him under the suspicion of wishing to destroy moral philosophy and ethics entirely. He must, however, be regarded as an evolutionary moralist. *Nietzsche* opposes the exaggeration of self-abnegation and ascetism with a violence of language and power of thought that sweeps everything before it. The very pretense that such discipline is necessary in order to break the human spirit in order that it may become moral is paralyzing to positive moral energy. *Nietzsche* insists on a broader and higher development of mankind. To this end he would heighten the pleasure of living,

and regards the inclinations, which are positive, spontaneous and conducive to higher vitality, as alone valuable. If we make allowance for *Nietzsche's* rhetorically individualistic lack of consideration for others, we at once discover the sound principle contained in his ethical theories. *Nietzsche* has once more revived and enthusiastically developed in greater detail, a doctrine which was first suggested by *Spinoza* and further elaborated by *Schiller*. He insists upon substituting an ethics of joy for the traditional ethics of sorrow; an ethics of vigorous activity for the former ethics of enervating renunciation. We shall have occasion to make use of his theory in our own genetical-biological explanation of ethics later on.

40. THE PROBLEM OF THE FREEDOM OF THE WILL

Inasmuch as every moral action proceeds from conscious volition, the problem of the freedom, or the determination, of the will is a preliminary ethical inquiry which cannot be avoided.

Two solutions of this problem, which are diametrically opposed to each other, have been proposed. According to the first solution, our will is free and renders its decisions entirely by its own power. We, i.e., our wills, make choice between the motives influencing the will, in entire independence of any external agency. The will is never governed nor determined by causes, but is itself the sole cause of our final choices. This theory is known as *Indeterminism*.

The second theory, on the contrary, holds that our

volitions are simply links in the chain of events making up the total world process, and therefore subject to the *law of causality* like everything else. An incident, the causes of which are not fully contained in its antecedent processes, is absolutely unthinkable. The postulate of an uncaused incident contradicts all the principles of scientific investigation. Our volitions are the product of our organization, which is completely determined by heredity, training, tradition, and destiny. An absolute intelligence, capable of comprehending the total course of our development in all its details, would necessarily be in position to predict our decisions in each separate case, with the same precision and certainty as that with which our astronomers compute the occurrence of an eclipse. This school is known under the name of *Determinism*.

Indeterminism is supported by an appeal to the psychological fact that before every choice we have the distinct feeling of alternative possibilities; whilst after a choice has been made, we invariably feel that we might have acted differently. Indeterminism, furthermore, insists upon the ethical argument, namely, that we can be held morally accountable for our actions only in case they are the result of our own, unconstrained volition.

Determinism appeals to the universality of the law of causation, the interdependence of our physical and psychical organization, and finally, to the uniformity of human actions,—a uniformity which has at least a certain degree of statistical evidence in its favor, whenever a

sufficient number of individuals are taken into account.

Determinism seemed to have so completely gained the ascendancy during the course of the centuries that many psychologists and philosophers regarded the question as settled. The opinion seemed to prevail that every scientific thinker must necessarily be a determinist. But indeterminism has recently found enthusiastic exponents in *William James*, *Heinrich Gomperz* and *Karl Joël*. The metaphysical problem of the freedom of the will is, consequently, in full sway again.

The difficulty of this problem, which has engaged the attention of the profoundest thinkers in the past, and still continues to do so, will be materially reduced by a more accurate definition of the term "Freedom." Freedom in the *metaphysical* sense, implies something which is "outside the law of causality," whilst, in the *psychological* sense on the other hand, "freedom" signifies the absence "of the feeling of external or internal constraint."

Volitional activity, in so far as it is the object of immediate experience and, consequently, like all other experience, subject to the law of causality, cannot be regarded as "free" in the metaphysical sense of the term. But it is all the more certain, on the other hand, that the attribute of freedom in the psychological sense does apply to our volitional acts. This will become still more apparent from the following consideration.

What we call our "Ego," our personality, is, strictly speaking, nothing more than the actually existing complex of our psychical experiences. Every volitional act,

therefore, which results from this total complex is experienced by us as the spontaneous choice of our own personality. However, when an idea or an emotion attains sufficient power to inhibit the activity of the other psychic energies, then our action yields "to an irresistible compulsion." As a matter of fact, indeed, jurisprudence also makes the presumption of accountability in all cases where the agent has complete possession of his mental powers and is therefore in position to appreciate the scope and significance of his act.

Freedom of choice increases in direct proportion to the richness of this complex which we call the Ego. The more varied the relations in which the idea of an action about to be executed may be seen to stand, the greater the number of forces contributing to our decision, the more will the decision itself create the impression of being an act of deliberate choice. The proposition, "Education confers liberty," therefore contains a profound psychological truth.

Every act, therefore, which proceeds from the total synthesis of our psychical experience, is our own individual act. We feel it to be such and are likewise prepared, because of this feeling, to accept its consequences. Since we decide that the deed shall take place, we at the same time decide its consequences. This disposes of the matter then, at least so far as ethics is concerned. Every one is morally bound to assume the responsibility for whatever he has done while in complete possession of his mental powers, without regard to whether the will is

metaphysically free or determined. But whenever the mental powers fall below the normal standard, responsibility, both legal and moral, ceases.

41. THE PROBLEMS AND SCHOOLS OF ETHICS

The foremost question among the purely ethical problems pertains to the origin of morality. Two different answers to this question have been offered. *Nativism* teaches that morality is an innate disposition of the human soul. Notwithstanding the fact that certain customs meet with popular favor in one age and are frowned upon in another, all human beings do make distinctions between the morally good and evil. The ethics of *Kant* is a brilliant example of pure nativism. According to his theory, even the moral law is innate. *Fichte's* theory likewise belongs to this class. He regards the decisions of conscience as infallible. *Empiricism*, on the other hand, denies all innate principles and holds that moral consciousness is a product of evolution. The latter view is at present the more prevalent.

The end of moral action, according to the ancient moralists, as previously observed, is the happiness of the individual. The guiding principle of this school is *Eudaemonism*. The English philosopher, *Jeremy Bentham* (1748-1832), on the contrary, developed a theory, widely accepted both in England and on the continent, which regards the general benefit to the community, or the greatest good to the greatest number, as the end of moral action. This school is known under

the name of *Utilitarianism*. There is still another school of moralists that regards morality as an end in itself, or that the goal of moral endeavor is the perfection of mankind, the realization of his destiny. Because of the fact that this school finds the end of moral effort in ideals rather than in existing realities it may be described as *Ethical Idealism*. Christian ethics, so far as it pertains to the realization of the Kingdom of God, is *religious Idealism*, so far as it rests upon final awards in a future life, it is *transcendental Eudaemonism*.

One class of thinkers derives the moral impulse from Egotism, whilst another finds it in a primary sense of sympathy, which enables us to share the pleasure and sorrows of our fellowmen. This school has been given the name of *Altruism*, a term which has been coined by *A. Comte* (*alter*—the other one). The moral principles of antiquity, for example, are egotistic as likewise those of the *French Enlightenment* (especially *Helvetius*). *Adam Smith*, on the other hand, endeavors to explain the moral feelings altruistically by referring them to sympathy, and *Schopenhauer*, still more strictly, by referring them to pity. *Kant* and *Fichte* are likewise strongly altruistic. Modern evolutionary ethics assumes an intermediate position, by showing that the altruistic feelings which are unquestionably primary at the same time involve the egoistic principle.

There are two schools distinguishable also on the basis of the norms and sanctions of moral conduct. The one discovers the ground and authority of moral precepts

within our own nature (autonomous ethics), the other locates them in some external law (heteronomous ethics). Autonomous ethics regards the decision of reason or of conscience as sovereign. This school is still further subdivided into reflective and emotional ethics, according as it considers the process of choice as preponderantly an act of cognition or of feeling. *Socrates* and *Kant* are both autonomists, but of the reflective type. *Shaftesbury*, *Adam Smith* and *Schopenhauer* likewise belong to the autonomist school, but they are all emotionalists. Heteronomous ethics finds the basis of the moral law in an authority, which is separate from and independent of the individual. Such authority may be ascribed either to religion, or to the Church, or even to the state. This then permits of still another distinction, namely, between religious and political heteronomy.

Besides these problems there still remains the question concerning the relation of morality to *religion* and to *law*; finally also concerning the relations of the individual to the family, to the community and to humanity as a whole. Our attitude to each of these problems and schools, just as we found it to be the case in the treatment of epistemology and aesthetics, will be considerably simplified by the genetic and biological explanation.

42. GENETIC AND BIOLOGICAL ETHICS

There are two psychological facts at the basis of the moral life which are wholly distinct from each other. The first is the fact that we pass moral judgment upon

the conduct of others. This judgment oscillates between the extremes of commendation and condemnation, with an almost infinite variety of intermediate degrees. The second is the moral feeling which we experience within our own minds, both before and after our volitional choices. Previous to the choice, this emotion is characterized by a keen rivalry of ideas and impulses which frequently resolves itself into vacillation, the embarrassed state of halting between alternatives; after the choice by moral satisfaction or by remorse, within which again there is every shade of intensity. The psychical disposition to this moral emotion constitutes what is generally known as *conscience*. Hence the *moral judgment* on the one hand and *conscience* on the other, furnish the *psychological basis of the moral life*. It is quite evident that these two fundamental psychical facts bear a vital relation to each other, but they are never identical. It seems advisable, therefore, to examine each of them separately.

Moral judgment is a special case of the phenomenon of evaluation. Every moral judgment is an evaluation, but not every evaluation is a moral judgment. It is to be regretted that the psychological and historical evolution of evaluation has not yet been scientifically investigated with sufficient thoroughness. We are nevertheless inclined to believe that approximately the following phases of its growth may be accepted.

An evaluation of the deeds of others is a psychological process of considerable complexity, the analysis of which

is rather difficult. For example, whenever we watch a skilful acrobat performing some difficult feat with great dexterity and assurance, we are as a rule gratified, i.e., we experience feelings of pleasure. These feelings of pleasure may, in the last analysis, proceed from the involuntary, sympathetic movements of our own body to which we are excited by the sight of the performances. We have a similar experience whenever we witness a rare demonstration of strength on the part of an athlete. We lift, as it were, the heavy weight with him, and we rejoice in his success. But since we are simply spectators, and only imitate the movements actually performed by the athlete;—that is to say, we do not actually perform but only take note;—naturally, therefore, we do not feel the actual strain; the weight does not press upon us, hence our enjoyment at another's success is thus indeed less intense, but all the more pure in its quality, because unmixed with the feelings of pain which attend the actual performance of the movements. From the effort witnessed in the athlete, we infer that the performance of the task requires great physical strength. It is this great physical strength then that we really admire. It is highly probable that the most primitive form of the evaluation of the deeds of others rests upon admiration for their physical prowess. We have no direct interest in the demonstration, considered by itself, beyond the physical strength which it expresses. Our happiness in no wise depends on whether the heavy iron ball is lifted or not.

Homer's Iliad introduces a number of such cases of evaluation. *Diomedes* picks up a rock which, as the poet tells us, "no two men, such as we find to-day, would be able to lift, but this hero, unaided and alone, tossed it about quite playfully." *Patrocles* goes to battle bearing the arms of *Achilles*, save the spear, for no one of all the Greeks, save *Achilles* alone, was able to handle this. In each of these cases, the poet wishes to excite the admiration of his hearers for the physical prowess of his hero.

Even the *Odyssey* already discloses a more highly developed form of evaluation. In the ninth book of this epic he introduces the giant *Polyphemus* and we hear the recital of this monster's demonstrations of amazing strength. But *Odysseus* finally proves his superiority to the Cyclop by his cunning, which leads us to appreciate the power of mind revealed in artful ruse and stratagem. In this case, at least a part of our satisfaction is due to the achievement of mind, because we feel that *Polyphemus* is reaping deserved retribution for having devoured six of *Odysseus'* companions. The poet as well as his readers at any rate admire *Odysseus* for his shrewdness.

We may, therefore, regard the appreciation of intellectual prowess as a second phase in the evolution of the evaluation of the deeds of others. The fact that this intellectual strength, this sagacity, is shown in trickery and deceit, in falsehood and fraud, makes no difference; a circumstance which clearly shows that this kind of evaluation contains none of the elements of morality.

There is still a third phase in the evolution of the

evaluation which rests upon power alone without regard to the results which it produces. The Hindu sages tell of penitents "fasting for a thousand years and standing upon one foot all the while." "Gods and men" the legend continues, "are quite paralyzed with admiration for the power of endurance which these penitents possess." In these cases, it is the power of *will*, manifested in the repression of the natural vital functions, that excites admiration. No one has the slightest interest in the achievement as such. This is therefore another case of the evaluation of strength.

We are therefore justified in saying that what we admire in the deeds of others is, above all else, the strength which their deeds reveal. First in order, it is the strength of the body, then of the intellect, and finally also of the will, that excites admiration. The moral element is wholly lacking in every one of these evaluations. This becomes a factor only after the achievement itself, in addition to the power which it manifests, becomes an object of appreciation. The appreciation of mere power is still evident even to-day, but at present we are more concerned about the effect than formerly, and this essentially modifies practically every evaluation of power.

The resulting effect may, at first, excite our aesthetic satisfaction or dissatisfaction and thus become the subject of aesthetic evaluation. However, just as soon as the consequences affect the general welfare of society, of which the agent is a member, just as soon as this general welfare is palpably advanced or disturbed by the deed,

in that moment it becomes a matter of *moral evaluation*, i.e., the act is then either approved or disapproved in the moral sense. When Diomedes slays an enemy with a heavy rock, the lifting and even the throwing of which is admired in itself as an extraordinary demonstration of strength, his countrymen nevertheless regard his act as beneficial to their community and hence likewise ascribe a degree of moral approbation to it. *We may therefore define moral judgment as the evaluation of an act in its social significance.*

Moral judgment bears a social character from its very inception. It is therefore a participating factor in the social evolution of the race. This conclusion is also in harmony with the investigations of *Edward Westermarck* cited above, who regards society as the birthplace of moral ideas.

As long as the crowd follows its leader almost instinctively, as long as the life of the individual, fettered by religion and custom, is still quite destitute of independent thought and feeling, the deed, the act, the success alone, remains the subject of moral judgment. Under these circumstances there is no discrimination between murder and homicide. The act is atoned for without regard to its perpetrator. Whoever, for example, has offended the household gods by an act of impiety thereby brings the divine wrath upon the whole tribe and is thus the cause of social harm to the community as a whole. The deed demands expiation, but there is no concern as to whether the act was done intentionally or whether it was due to an accident or sheer thoughtlessness.

But, with the evolution of a richer culture, the division of labor and other agencies, personalities arise whose intellectual life differentiates itself from that of the community, who assert their individuality in distinction from the popular will as expressed in religion and custom. They challenge the authority of tradition and consciously realize that they are distinct potential centers within the community. It then depends very largely upon the will of the individual as to what attitude he shall assume towards the tribe. The common welfare is conditioned upon the individual's purpose to foster or to exploit their interests. Thus the general disposition becomes of greater social significance than the particular act. Accordingly disposition becomes the subject of moral judgment more and more exclusively. At present we regard a psychical disposition as moral when it serves as a constant incitement to actions calculated to promote the common welfare, or at least such as will not bring harm to the community.

Despite this fact, however, even at present success still forms an important factor in moral judgment. The blessings which the community has actually realized still influence our judgments far more effectively than mere good intentions. An important problem for future ethical inquiry will be to ascertain, by accurate analysis of moral sentiment, the significance of success in moral judgment.

The success and the real object of human actions lose their importance in moral evaluation in proportion as moral judgment directs its attention to inner motives.

We are coming more and more to regard volitional attitude as the sole criterion of morality. And the evidence of distinctively volitional activity is most clearly present in cases where the will opposes and suppresses our natural inclinations and passions. This self-control was formerly regarded as the real object of moral growth, and as meritorious in itself and its own sufficient purpose. As a matter of fact this still continues in large measure to be the case even yet. This theory is supported on the one hand by an appeal to the ethics of primitive Christianity, resting upon asceticism and retirement from the world. and, on the other, by an appeal to the tremendous growth of individuality and the exalted appreciation of personality. The pious Christian aspires to happiness in a future life through the suppression of fleshly desires and self-denial; the self-conscious individual, moreover, proud of his own strength, hopes to accomplish his own complete deliverance from every vestige of coercion both external and internal by his own efforts.

Goethe, the greatest individualist who ever lived, expresses this sentiment as follows:

“Von der Gewalt, die alle Wesen bindet,
Befreit der Mensch sich, der sich überwindet.”

In opposition to this view, however, genetical-biological ethics is obliged to strongly emphasize that self-denial is only a means of discipline, which whilst it should indeed be diligently practised, should never be proposed as an end in itself. Cheerful devotion to the general welfare

of society is socially of greater value than self-denial and hence it occupies a correspondingly higher ethical plane. Inasmuch as it is natural for man to find pleasure in the vigorous exercise of his native capacities, it is therefore vastly more important to develop this functional pleasure and direct it into proper channels, than to regard its suppression as meritorious. Thus considered, *Nietzsche* is largely correct in his opposition to asceticism and self-denial. Self-denial, considered as an end in itself, tends to paralyze moral effort, whilst cheerful devotion to social problems tends to increase the moral powers.

Conscience has been examined more frequently and more thoroughly than the nature of the moral judgment, but the theories concerning its origin are still at variance. The fact that religious ideas are very frequently matters of conscience, has given prevalence to the opinion that at least the source of the sense of moral obligation is to be found in religion. This view, however, is in conflict with the fact, now thoroughly established, that religious ideas and feelings, as they appear in the rude stages of development among primitive races, have nothing whatever in common with morality.¹ The savage is inspired

¹Leopold von Schroeder has recently entered the lists against this theory as it has hitherto been held by the comparative religionists. In an essay on *The Nature and Origin of Religion, Its Sources and its Growth* (published in the compilation of *Contributions to the further Development of the Christian Religion*, 1905, pp. 1-39), he undertook to prove that a belief in a beneficent Supreme Being is also quite widespread among primitive races. Schroeder is confident of having discovered a new source of

with awe in the presence of the Demon to whom he ascribes the force of nature which has excited his wonder and dread. He endeavors to propitiate the deity in order to escape his wrath. The motive which determines his actions are purely selfish. It is only at a later stage that the religious ideas and feelings are purified by means of a developed moral sentiment. The gods, originally conceived of as nothing more than forces of nature, which may be either friendly or hostile, or perhaps as the souls of the departed, are at a later stage elevated to the position of guardians of the moral order of the universe. But conscience, as well as the moral judgment, springs from social elements, i.e., our choices are influenced by the thought that our actions meet with approval or disapproval on the part of the other members of our family, sex, or state.

It is probable that, during the tribal period, conscience amounts to nothing more than a sense of obligation to the will of the community, as it finds expression in religion and custom. But just as soon as the advancing culture raises the individual above the tribe; just as soon as independent thought and reflection receive recognition, even against tradition, conscience immediately rises to a state of independence and power.

The universal will is actuated by the welfare of the community; but it by no means follows that the leaders,

religion, one in which the ethical element is evident from the beginning. Cf. Jerusalem *Gadanken und Denker*, pp. 178 and 282.

at any given time, are qualified to select the proper means to this end. It is likewise inevitable that institutions which were once useful and even necessary, should, in the course of time, become superfluous and even harmful. The man of broad culture and independent thought eventually discovers that the universal will, as expressed in its accredited institutions and laws, is detrimental to the welfare of the community, instead of being serviceable. But since the authority of tradition, notwithstanding its harmfulness, is always a factor of considerable importance and tends to survive tenaciously, numerous conflicts arise which, in turn, stimulate reflection concerning moral obligation and thus contribute to the enrichment of moral life.

The individual eventually presumes, by virtue of native insight, to decide between right and wrong independently. He criticizes the moral authority of the traditions, including religious and political institutions. This supremacy of the reason in moral questions as advocated especially by *Socrates*, finally gives rise to the opinion that there is an absolute good, independent of its effect upon general welfare. This, however, is certainly an error. The ultimate ground upon which anything is considered good can, after all, never be anything else than the fact that, by its agency humanity is benefited, and life made richer and happier.

But conscience assumes two forms during the course of its development. These were first distinguished by *Paulsen*. The demands which the *universal will*, ex-

pressed in the forms of prevailing custom, religion and law, makes upon the individual are reflected in the soul of the individual in the form of *social conscience*. This term implies the sum of those psychical dispositions which prevent every individual from bringing harm to the community through the neglect of social requirements. The idea of prospective reproach and the possibility of punishment at the hands of society, forms an additional integral element of the moral consciousness. The total obligations imposed upon the individual by society may be epitomized in the concept of humanity (in the sense of duty to mankind in general). Our social conscience requires us to discharge our duty to humanity. The claims of humanity and the individual incentives growing out of them are the expression of the dependence of the individual upon society. The organs to which society entrusts its conservation are concerned, as a rule, to impress this dependence effectually upon its members in order to maintain its existing status and protect itself against the encroachment of individuals and the shortcomings of the disloyal. Humanity and the social conscience constitute the conservative element in moral evolution.

However, in addition to this, there is still another form of moral consciousness making for progress and higher things which we may call the *individual conscience*. After man has risen above the crowd and developed the sense of individuality, he is no longer satisfied with merely meeting social demands and guarding himself

against reproach and punishment. He aspires to the development of his capacities; he imposes obligations upon himself; he follows ideals and is not satisfied with himself until he is fully conscious of having done his best. At this stage fully developed personality acquires an intrinsic value, which the individual conscience requires us to guard with jealous care.

Socrates is a brilliant example of the spirit of an exceptionally well developed individual conscience. He not only scrupulously discharged all his duties as an Athenian citizen, but likewise imposed upon himself the task of awakening and sharpening the moral consciousness of his fellow-citizens. When finally arraigned for these efforts, he scorned pleading for the mercy of the court and fleeing from prison. He preserved the dignity of his individuality and died for it. It frequently happens that social requirements conflict with the individual conscience and depreciate the dignity of personality. Superior intellects challenge such demands and thus contribute to a higher development and refinement of moral consciousness. The increased consideration shown in the treatment of insolvent creditors is an evidence of a quickened sense of appreciation for personal self-respect. Personal obligation and personal self-respect, the social and the individual conscience, coöperate in impressing the sense of social responsibility upon every individual, and at the same time magnifying the intrinsic value of personality, thus exalting the sphere of social duty through the consciousness of its dignity. It will devolve

upon some future ethical system, to which the author of this work hopes to make some contribution during the coming years, to develop more fully this principle of the coöperation of personal obligation and personal self-respect.

Aristotle was the first to announce the profound doctrine that happiness rests upon exercise. Modern Psychology fully verifies this conclusion. Human happiness does not consist in mere passive indulgence, but solely and alone, in the successful exercise of one's own powers. Nowhere, however, can the individual find more vigorous or more fruitful exercise for his powers, nowhere can he find a larger field of opportunity for this purpose than in the efforts which serve to promote the general welfare.

This splendid ambition is common to Eudaemonism, Utilitarianism and Ethical Idealism, and the distinctions between the schools is thus obliterated. The genetical-biological view likewise harmonizes egoism and altruism, just because the effort for the general welfare coincides with the happiness of the individual.

As respects the question concerning the *origin of morality* our view leads to a decisive evolutionism, since, indeed, morality appears as the highest product of evolution.

On the question of the *authority* of the moral norms, we likewise attain a reconciliation of antitheses. The moral law is *autonomous* from the viewpoint of humanity in general, *heteronomous* from the viewpoint of the individual. The social whole is the authority to which

the individual is, as it were, forced to yield, in order that he may then spontaneously regard himself as one of its members and find his own happiness in its service.

In the matter of the relation between *morality* and *religion*, the genetical-biological theory shows conclusively that morality arose independent of religion and that the authority for its claims are wholly independent of religious dogma. An act is not moral because it is well-pleasing to God, but it is well-pleasing to God because it is moral. This proposition has not only been defended by *Plato* in the dialogue with *Euthyphro*, but its correctness has likewise been conceded by such orthodox theologians as *Thomas Aquinas*.

The most intimate relation between religion and morality has nevertheless existed through long periods of time. The moral norms, originating in social needs, are construed as religious duties and thus receive a consoling warmth which cold reason could never give them. And even at present there is splendid opportunity for religion to make itself felt most beneficently in the line of social service. Nevertheless, religion owes its purification from crude anthropomorphism and egoism to moral considerations and sentiments alone.

But religion does not merely consist in a body of precepts. It is, in a much higher sense, a theory of the universe and of life. But as such it must take account of ethics in so far as ethical norms presuppose the belief in the perfectibility of the human race. This belief may, of course, be derived from experience, but in order to

have the stability which it requires it must proceed from a consistent theory of the universe. But such a theory requires, as we have shown at the end of Section 34, the postulate of a powerful will, which is to be regarded as the ultimate source of both natural and moral law.

The genetical-biological method of investigation likewise offers the possibility of discovering principles which will reveal the ideals and purposes of human effort and which at the same time simplify decision in doubtful cases.

The terms family, community, state and humanity, express the narrower and the wider spheres of moral activity. Both the community and the state rest upon the family. Cordial family life is an indispensable condition to the prosperity of the state. It becomes obligatory, therefore, to cultivate the sentiment of solidarity in the family and to provide for the welfare of its members. It not infrequently happens that the interests of the state demand the renunciation of family ties. Public servants such as soldiers and state officials must not permit their anxiety for wife and children to interfere with the full discharge of their official duties. The duties of patriotism, generally speaking, contain obligations which are superior to domestic duties.

The matter of discriminating between the obligations to the state and to posterity in general presents a problem of far greater difficulty. The tremendous development of individuality has evolved the concept of *personal self-respect* and has impressed upon us its corresponding

duties. But it is to be feared that the day is still distant when these duties will have become so deeply implanted in human nature, as to form the invariable rules of action, both in the case of war between civilized nations and in the intercourse of civilized nations with the less cultivated races.

As society is at present constituted, at any rate, we can only speak of a compromise between the morality of war and the morality of peace.

The possibility of full compliance with moral obligations, however, does not only depend upon the good will of the individual, but in large measure, likewise, upon the social order in which he lives. It becomes the duty of scientific ethics, therefore, to examine the social order with a view to discovering to what extent it renders the discharge of ethical obligations possible, i.e., in other words, to what extent the social order is adapted to the true conditions of life. With this problem, however, ethics passes over into the theory of the evolution of human society, or *Sociology*.

43. SOCIOLOGY AND THE PHILOSOPHY OF HISTORY

Sociology, although not as yet universally accredited, is the youngest of the philosophical sciences. Its subject matter is *man considered as a social being*, or more accurately expressed, *the social group in its organized unity*. This group is more than, and at the same time something different from the sum of the individuals constituting it. Every such group is a species of community, i.e., it has

common traditions, ideals and struggles. It appears as a linguistic and historical community in the form of race or of nationality; as a political community in the form of the state; as community of interests in the form of guilds, corporations and associations; as community of faith and sentiment in the form of the religious congregation, and finally as community of culture in the concept of humanity. The social group exerts a powerful influence upon each of its members by furnishing inspiration, imposing checks or removing hindrances. The development and status of the individual, his imagination and reflection, his feeling and conduct, are largely determined by the group. The group is constantly serving in the capacity of a creative genius and fashioning artist in this respect. *Wundt's* brilliant conception of creative synthesis in mental development is most clearly and vividly manifest in the social group. The association of individuals gives rise to something new, super-personal, which governs the individual but is in turn reciprocally modified and strengthened through the efforts of the individual. Thus sociology addresses itself to the exceedingly difficult task—of examining the reciprocal relations of society and the individual in the various spheres of life—a task, however which promises correspondingly rich results.

Although the concept and the name of this discipline was only formulated about the middle of the nineteenth century by the French philosopher *Auguste Comte*, its subject matter engaged the attention of philosophers long before that time. *Plato* described the ethical purport of

the state as he conceived it in his two ideals of the state, the second of which, especially, is elaborated even to the smallest detail. This is the armory from which the champions of social righteousness even to-day still love to draw their ammunition. *Aristotle*, with rare acumen, made a critical study of all the existing forms of political organization of his age. He regards the state as a product of nature. The fundamental thought from which he starts, namely, that man is by nature a social being, still forms the basis of all sociological investigations.

Owing to the predominance of theological problems, the middle ages had very little taste for sociological investigations. The renaissance and modern philosophy, on the contrary, have devoted much attention to these matters. *Hugo Grotius*, in his theory of natural law, laid the foundations for a philosophy of law which has since then been assiduously cultivated. This discipline, however, is no longer regarded as a separate branch of study, but is properly referred to the department of sociology.

Thomas Hobbes regards the state as an institution devised by man for the purpose of mutual protection. He is therefore the author of the *social contract theory* which prevailed for a long time. *Rousseau* likewise regards the state as an artificial contract, but insists that its terms should be characterized by liberty and equality. His theory became the watchword of the French revolution.

The nineteenth century has returned to the Aristotelian

conception, namely, that the state is a product of nature. It has endeavored to comprehend the state from the viewpoint of its historical evolution. *Auguste Comte*, who, as we have observed, formulated the concept and name of sociology, undertook to investigate and formulate the laws of social evolution after the same manner as the laws of nature. According to him, sociology forms the crown of his system of positive philosophy. In the graduated series of the sciences, beginning with mathematics, and advancing thence to astronomy, physics, chemistry and biology, sociology forms the last and highest member. The organic theory of the state, outlined already by *Plato*, has been more fully developed through the evolutionary theory. It has, however, frequently suffered from unwarranted exaggeration. According to this theory, the state is a higher organism which, presumably, develops according to laws which are similar to those of individual development. *Schaeffle* has elaborated this theory in his treatise on *The Structure and Life of the Social Body*, in which he has carried the analogy much too far.

Herbert Spencer in his *Principles of Sociology*, has attempted a theory of social evolution upon a strictly genetical-historical basis. He builds upon a broad empirical foundation drawn from rich ethnographical material. The state is evolved from more primitive forms of society according to the general laws of development as postulated by *Spencer*. There is a constant tendency on the part of the state towards increase in extent and at the

same time towards greater stability. In this process of growth the same process of differentiation takes place among the members of the state, i.e., its population, which *Spencer* has shown to prevail in the development of organisms generally. The constituent parts, at first homogeneous and indefinite, become increasingly heterogeneous, with a parallel tendency to greater definiteness on the part of each. Owing to the division of labor the interests and characters of men undergo constant differentiation and are at the same time more rigidly circumscribed and more sharply defined. These parts at the same time become proportionately more dependent upon the whole, which for this reason likewise becomes correspondingly more stable. *Spencer*, however, always regards the individual as in a certain sense an end in himself who must never be debased to the level of a mere servant of the state. The ideal state would be one in which the individual serves the general welfare by following his own private interests.

A more concrete theory of the origin and nature of the state, one which is at the same time more in accord with the actual facts of historical development, has recently been propounded by *Ludwig Gumplowicz*. This theory has likewise been defended and more fully developed by *Franz Oppenheimer*. According to this theory the state is "a social institution which is imposed by a victorious social group upon those whom it has conquered with the single object of regulating the authority of the former over the latter and guarding against

internal rebellion and external assault. Rulership, furthermore, has no further purpose than the economic exploitation of the conquered by the conquerors." (*Franz Oppenheimer. Der Staat.* p. 8. ff.). We must acknowledge that the majority of states actually in existence have arisen after this manner, and that the economic and the social differentiation within the state is more readily explained upon the basis of this theory. But this at all events, does not answer the ultimate question of sociology, because the victorious, as well as the conquered group, already manifests a species of social organization in which social differentiation is certainly not wholly wanting. But we must nevertheless concede that this concrete theory, supported by a formidable array of historical facts, has a decided advantage over the vague organic theory and the unhistorical social contract theory.

Modern ethnology, the comparative history of religion and of law, political economy and the history of economics, so zealously fostered in recent years, furnish sociology a constantly growing wealth of material; whilst the present-day movements for social reform serve to greatly intensify the interest in sociological investigations. But the very abundance of material renders a comprehensive grasp of the whole exceedingly difficult, and partisan political views frequently obscure scientific objectivity. Sociology, consequently, is still in a state of ferment and it will require much special investigation and profound intellectual labor in order to secure authentic results.

One thing, however, is already certain. Wherever we meet with man, whether historically or geographically, nowhere and at no time do we find him living in isolation. At all times and in all places he lives in social union with others of his species. The lower we descend in the scale of civilization, the more strictly do we find the individual controlled by custom, and the independence which he enjoys is correspondingly less. It is only during the course of cultural evolution that individuality ultimately asserts itself. *Spencer* is quite right when he says: society precedes individuality ("Society is prior to man"). Independent personality, thinking for itself, with its own distinctive emotional life and freedom of choice, is an acquisition of the social evolution of civilization, and we may at the same time add, one of its most precious acquisitions.

The individual may ultimately come to recognize the truth that the noblest occupation which can engage his personality, and the one which will at the same time bring him the largest measure of happiness, consists in devoting his energies to the service of the community. But man, once he is delivered from his serfdom, will nevermore consent to become the slave and bondsman of society. The conditions which are favorable to progress carefully foster individuality rather than suppress it, and the only rational aim of a wise social policy is to inspire in the individual the spirit of social service.

The philosophy of history is closely related to sociology. It attempts to discover the guiding principles and

ultimate ideals of historical evolution. *Herder*, in his "Ideas on the Philosophy of the History of Mankind," regarded humanity as the ideal goal towards which historical development is moving. Humanity involves the perfect development of the specifically human faculties, and thus it becomes an end in itself. The character of the eighteenth century, individualistic on the one hand, cosmopolitan on the other, receives its historico-philosophical expression in the work of *Herder*.

Hegel, in his theory of objective mind, aimed to construe history in a most imposing manner as *the progressive unfolding of the consciousness of liberty*. His exposition does equal justice to individual liberty and to the obligation of the individual to the state. Despite his numerous chronological errors, *Hegel's* conception of history still remains the most brilliant attempt to formulate a unitary theory of historical development. As is well known, both the modern materialism of *Feuerbach* and the socialism of *Lasalle* and *Karl Marx* are outgrowths of the Hegelian school. The economic theory of history which has now become a dogma of the social democratic party was originated by *Karl Marx*. According to this theory the entire past historical development can only be properly understood from the viewpoint of economics. The economic needs and the various forms assumed by the productive industries and the distribution of commodities are the fundamental motive forces of history. Religious and moral sentiments, together with other "ideological factors," are only apparent

and superficial symptoms. The true causes of all revolutions as of all great historical movements have always been of a purely economic nature.

The economic interpretation of history, sometimes also called the materialistic theory, is of vast importance as a method of investigation. We may still expect large contributions to a correct understanding of history from it. But as a philosophy of history it is much too narrow, and its failure to accord with the facts is notorious.

The philosophy of history has the same end in view as sociology. It is, therefore, a happy suggestion on the part of *Paul Barth* to unite both disciplines into one (*The Philosophy of History as Sociology*). For such a system of sociology as this there are profound and important problems in reserve. It will have to show to what extent the psychic life of the individual is influenced by social life, i.e., by the universal will. It will perhaps appear that this influence is vastly greater than any one at present imagines. The social factor in the evolution of knowledge, discussed in Section 27, will then become manifest in its full significance and efficacy. We shall discover that further progress in psychology and epistemology will depend upon the recognition of this factor. Sociology will no doubt likewise furnish new data for aesthetics, the most individualistic of all the philosophic disciplines. There is no doubt but that the public, for which an artistic production is designed, frequently guides the efforts of the artist even though he may be unaware of it, and, hence, it is certain also that the aesthetic judg-

ment of the individual is invariably affected by popular taste. It is quite generally admitted even at present, that Ethics can only be treated from the sociological point of view. This will become still more evident as Sociology advances.

With this accomplished, our entire theory of the universe and of life will appear to be a product of social evolution; an evolution, moreover, whose most important result is the creation of personalities which are both independent in intellect and worthy of liberty. The Sociology of the future promises therefore to be more than a mere philosophical discipline, but rather a discipline that might well become the foundation of all philosophy.

44. PEDAGOGY

The theory of education or pedagogy is closely related to the problems of philosophy, particularly with psychology on the one hand and with ethics and sociology on the other. This explains why the fundamental theories of this discipline are generally due to thinkers who have devoted much time and attention to philosophical problems. The task of education, domestic as well as public, is of such signal importance, both for the state and for mankind in general, that the viewpoints from which its ideals and methods are determined can never be too high.

The end and purpose of education can ultimately be determined only by ethics and sociology, the disciplines which are devoted to the investigation of moral problems

and the relation of the individual to society. However, if this end is to be realized, a careful study of the child mind is indispensable to the educator. This also requires adequate psychological training. A thorough philosophical education is, therefore, indispensable to any one who would assume the exceedingly responsible office of a public educator or teacher. At any rate, a far more adequate philosophical preparation should be provided for teachers than is the case at present.

However, the philosophical principles of pedagogy are by no means sufficient for the adequate preparation of the teacher. The art of teaching, like every other art, can only be acquired by systematic practice. Provision for this must come chiefly from the practical experience of the profession in addition to the philosophical training.

It is undoubtedly true, as shown by the history of pedagogy, that the intellectual trend of the age determines the principles which must govern the education of its youth. Thus, the present age very properly demands a social pedagogy very different from the individualistic pedagogy of the eighteenth and nineteenth centuries, which regarded the well-rounded development of the individual as the chief end of education. By social pedagogy we mean a pedagogy whose single aim from its very beginning, is to instill the social spirit into the rising generation, and to implant the sentiment of social responsibility in the pupils as early and as effectively as possible.

Thus there arises a point of contact between philosophy and Pedagogy which has hitherto been neglected.

Philosophy, in its own behalf, requires the constant support of educational theory in order to effect its own proper influence. Theories of the universe and of life, such as the philosophers elaborate, fail to produce such reconstructive effect upon mature minds, as the philosopher desires and expects even though they may follow the course of the argument and assent to its conclusions. Popular convictions and ethical principles, as a rule, retain a greater influence upon life, even for the philosopher himself, than his own philosophical system. It is only after these philosophical theories have become the basis of general education that their proposed theories are assimilated and acquire practical significance.

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CONCLUDING REFLECTIONS

In the discussion of the various philosophical problems, we have repeatedly indicated the methods of thought which best correspond with the present scientific attitude; methods which in our opinion, are the only ones adapted to accomplish the desired ends. The attentive reader has no doubt discovered long before this that these proposed solutions of philosophical problems involve theories which are grounded in ultimate principles. It seems advisable, therefore, by way of resumé, to state these theories clearly and to deduce from them the problem which, in the judgment of the author, philosophy should assume.

The first and most general demand which we make of philosophy is this, namely, that it be both empirical and scientific. The philosophical structure must rest upon a firm foundation if we would indulge the hope that anyone will take up his abode in it. We demand, to adapt a phrase from *Fechner*, a philosophy built up from the foundation instead of one which is suspended from the clouds like the speculative philosophy of former days. But it must at the same time remain what *Descartes* attempted and *Kant* actually succeeded in making it, a philosophy from within and not, as materialists would

have it, a philosophy from without. The facts of our psychic life which possess immediate certainty will have to be examined separately and alone. The historical, and particularly the ethnographical, investigations of modern times have revealed the presence of intellectual energies which will likely forever remain inaccessible to psychological explanation. The universal will of a race, crystallized in language, custom, and religion, cannot be interpreted otherwise than psychologically. A universal brain is nowhere to be found; but the reality of the universal will is clearly revealed in its tremendous effects upon the will of the individual.

We have been taught by natural science that we must, first of all, establish our facts. But we must for this very reason be on our guard lest we neglect, as of secondary importance, the facts of our psychic life, which are immediately certain. In the effort to reduce the world-process to a single principle of explanation, in itself perfectly justifiable, we must beware of obliterating the distinctive peculiarities of various groups of phenomena which are wholly unlike. Physical and psychical processes forever remain incomparable. The only thing which is common to both is the concept of becoming, in itself absolutely empty and devoid of all content. Whoever contends therefore that only matter or only mind is real, does violence to one series of facts, and to say the least, ceases to be empirical.

There is a second demand closely related to the foregoing upon which the present age is very insistent. It

insists that philosophy must return to the theory of the unreflective mind, i.e., to the theory of sound common sense.

Sound common sense accepts the testimony of sense perception; it is convinced that what we see, hear and touch actually exists, and also that it exists even when no one perceives it. But philosophy likewise arrives at this conclusion after the efforts of reflective thought have for several thousand years examined our cognitive faculties, having passed through periods of the most radical skepticism and the most searching criticism. Sense perception, after all, so far as physical processes are concerned, remains the most original and primary source of truth even for the philosopher.

Sound common sense regards the psychic processes as wholly unique, different from everything physical, without ever questioning, however, or denying their constant and intimate reciprocal relation. Every one knows that the state of the weather affects our moods, and that our hands frequently tremble when we are under excitement. And the philosopher must finally acknowledge that this is the limit of our wisdom. Despite all our efforts it has been impossible to reconcile such utterly incompatible processes as those presented in the so-called external perceptions on the one hand, and those which take place in our own consciousness on the other. Even the philosopher, if he would not do violence to the most evident and well established facts, will have to recognize two distinct series of processes. And we have found that the

interaction between psychical and physical processes, which has for ages appeared utterly incomprehensible (see p. 181), consists of our immediate experience of causality, the prototype of all causation, the source of all our judgments and of all our interpretations of nature.

But even if the results of philosophical reflection do lead back to the views of the unreflective mind, the labor of the philosophers has by no means therefore been in vain. We return to sound common sense, but we return richer and wiser than we were before we entered upon the analysis of our experience. Just as our power of vision has been increased by the telescope and the microscope, so have analysis and experiment furnished us with a species of psychical microscope by the aid of which we have discovered processes in our psychic life which long remained unknown or unobserved. But just as the optical microscope has not revealed any new qualities of sense, but still limits our vision to colors and forms, so likewise the psychical microscope has not brought any new psychic elements to light, but only enabled us to differentiate those already known with greater precision, and to study their effects to better advantage. Furthermore, the discernment of the limitations of our knowledge by no means compels us, as critical idealism presumes, to surrender all hope of any knowledge of reality. It rather reveals the folly of attempting the impossible. But within the limits of the attainable the human mind may again have confidence in its own powers. It may confidently believe that the judgments, verified by the

realization of the predictions to which they gave rise, are the actual symbols of processes occurring independently of ourselves.

For this very reason, the sound common sense to which, according to our opinion, philosophy should return is not that against which *Kant* so justly protested in the familiar passage of the *Prolegomena* (Vol. 4, p. 7 of the Hartenstein edition; Eng. Trans., Bohn's Library, p. 5). We do not mean "the appeal to the verdict of the multitude; a clamor before which the philosopher blushes and the popular witling scornfully triumphs." Our discussion of the problems has made it clear that we are not seeking to evade the deep places in abstract thought. On the contrary we aim to explore the depths with our utmost zeal and energy. But we rejoice in having vanquished doubt and intemperate criticism by this very penetration,—we have once more restored confidence in the cognitive capacity both of our senses and of our understanding. We expect, as a matter of course, that our return to sound common sense thus matured shall render our philosophy more comprehensible and increase its efficiency. We can never believe that, in philosophy, clearness and profundity are irreconcilable opposites. We rather expect a regeneration of philosophy from a combination of these two.

The formal demands which the present age imposes upon an effective philosophy are, that it should be empirical and strictly scientific in its nature and method, and that it return to sound common sense. And these de-

mands have been fully vindicated. Our discussion of the particular problems has likewise shown certain common characteristics of content in the respective disciplines. It is in these characteristics indeed that the course of development taken by both the natural and mental sciences during the nineteenth century reveals its influence upon the philosophic method of interpretation; or, in the judgment of the author, it should at least do so.

Briefly stated, the points of view secured for philosophy by means of this influence are the *genetic*, the *biological* and the *social* methods of studying *psychical processes*.

As applied to psychology, the genetic method leads us to inquire after the origin and development of the various psychical elements. It no longer suffices to ascertain analytically the constituent elements presented in the actual complexes of psychic life. We wish also to know how and whence they arise. Scientists have long regarded representation and thought, the processes most readily accessible to introspection, as the primary states of consciousness, feeling and volition as secondary. Now at length increasing numbers of them begin to perceive that in all probability the reverse is more nearly correct. The feelings of pleasure and pain and the correlated impulses to movement seem to be the beginning of all psychic life, and, according to all appearances, it is from these that perception and thought have evolved. The *voluntaristic* psychology, of recent origin, which, as

previously observed (p. 37) is constantly gaining new adherents, must therefore be regarded as one of the fruits of the genetic method.

When applied to epistemology the genetic method reveals the fact that neither sensualism nor intellectualism furnishes an adequate explanation of the origin of cognition. It is only by the coöperation of receptive sense perception with the constructive and synthetic function of the understanding, that we are able to form judgments which we describe as true, and which can be verified by the realization of the predictions based upon them. But above all else, genetic epistemology has revealed the origin and the fundamental significance of the function of judgment in which the activity of what we have called fundamental apperception expresses itself. Self-interest, originating in biological motives, impels us to direct our attention to the objects of our environment. It is just because this is the case that we cannot avoid applying to these processes the fundamental apperception previously described (p. 107), by virtue of which we cast every process into the following formula: Object—function; potential center—potential expression.

The genetic method of interpretation likewise furnishes a clear explanation of the actual importance of language in the acquisition of knowledge, and at the same time protects us against ascribing either too great or too slight an influence to this agency.

In aesthetics the genetic method directs us to functional delight as the source of aesthetic pleasure. It has been

shown that the functional delight of the senses, intellect, and emotion, are three distinct sources of aesthetic pleasure, which, however, frequently produce a cumulative effect. We have also discovered that the highest form of aesthetic emotion arises from a species of love for the constructions of the artist, a love which reflects a new quality of beauty upon the artistic production itself. We have seen how the function of aesthetic judgment has evolved from the functional delight in which the objective factor has equal importance with the subjective factor. We have followed the artistic function genetically from play, through social service to the consummation of its perfection in its appeal to our affections.

In ethics the genetic method has thus far disclosed a number of important results. The comprehensive investigations of *Westermarck* have given an empirical basis for the explanation of the origin of ethical principles particularly in respect to the primitive races. Within the period of recorded history *Westermarck's* investigations have still to be considerably supplemented and extended. But he has made a most promising beginning even in this department. Such a foundation will prepare the way for the construction of a truly scientific system of ethics, which will satisfy the demands of the developed moral consciousness, without losing itself in utopian speculations.

Sociology, the youngest of the philosophical disciplines, adopted the genetic method from its very beginning. It is to this circumstance that it likewise

owes its rapid development and extraordinary success.

The methods of biology, as shown above (p. 87), are most intimately related to the genetic method. The former begins with the assumption that human psychic life is closely identified with the vital processes of the organism, and that the immanent purpose of this psychic life is nothing less than the preservation and improvement,—that is, the enrichment—of the life of the individual as well as of the race.

The biological method, therefore, finds its most fruitful application in the department of psychology. The whole theory of psychic life has been radically modified by it. Especially does this view enable us to reduce the chaotic mass of vital emotions and instincts to order and system far more readily. These phenomena can thus be classified much more comprehensively. The office of our cognitive functions, the origin of the concepts, the phenomena of imagination and of interest are likewise comprehended in the complex of vital processes with a resulting gain in clearness and intelligibility.

Construing the cognitive impulse as an element of the universal impulse of self-preservation, also materially simplifies our attitude to the problems of critical epistemology. From this point of view in particular the theory of critical idealism, which refuses to recognize anything except the contents of consciousness, appears untenable for biological reasons alone. That is, if we should apply this doctrine seriously and make it the basis of thought and action, it would necessarily lead to the

subversion of our cognitive faculty and complete mental confusion. A world theory which is at once irrefutable and at the same time incredible can never gain complete control of our mind. Its inherent contradiction will eventually become intolerable to any one who takes it seriously. Scientists, professing critical idealism, usually go no further than to make a courteous bow, and then continue their investigations just as if the world after all existed as a reality independent of consciousness. *Rokitansky* once remarked, and *Meynert* concurs in this judgment, that there is absolutely no sense in assuming the existence of the world after the brain is gone, because our world picture is the product of the brain. They both intend this as a positive declaration for idealism, but they seem to forget entirely that in this very statement they accord extra-mental existence to the brain, which shall nevertheless be conceived as nothing more than my idea.

We have previously shown that idealism is by no means unanswerable, and that this theory, considered from the biological viewpoint, is to be regarded as an hypertrophy of the cognitive impulse, which requires reduction in the interest of sound intellectual functions. The ultimate object of knowledge is after all the preservation and improvement of life. We must adjust ourselves to the universe; we must understand what elements to appropriate from our environment or we must perish. The increasing richness of the meaning of life, the growing difficulty of meeting its larger demands,

imposes upon science proportionately severer tasks because of the extension of knowledge and the larger control over nature which this demands. The principle of the division of labor, therefore, demands that a large number of men devote themselves exclusively to scientific research. These men will certainly not regard the consciousness that their efforts are directed to the discovery of truth with a view to increasing the welfare and happiness of mankind as humiliating or debasing.

In aesthetics the biological method has revealed the principle of functional demands. Aesthetic pleasure actively engages those psychic energies which are less frequently drawn upon in the ordinary routine of every day life. It enriches the spiritual life by satisfying the needs of both our intellectual and emotional functions. If the purpose of knowledge is to make man more powerful, then indeed to art belongs the glorious task of increasing his happiness. Artists thus become real benefactors of mankind. It is art, in fact that makes man truly human in the full sense of the term.

As applied to ethics the biological method shows that morality is a condition which the social life of mankind presupposes. We perceive how the moral sentiments of approbation and reproach do not take their rise from an aprioristic "thou shalt," nor yet from the fear of supernatural powers, but from the natural constitution of the race, which is social from its very beginning. These sentiments subsequently purify and elevate the religious ideas and emotions. However, as individual-

ity, i.e., personality, gradually differentiates from the primitive herding disposition with increasing definiteness, the protection of this personality becomes a requirement, and, in the further progress of evolution, a moral necessity. Morality thus acquires a large measure of individualistic importance in addition to its social significance,—the preservation and development of personality becomes a categorical imperative growing out of the dignity of man. Hence the preservation of society and the protection of the dignity of personality becomes the guiding principles of moral evolution. We owe the discovery of these principles and their clear definition to the biological method alone.

The biological method of inquiry is not confined to the evolution of the individual. It likewise embraces the life of the species. This naturally leads to the third demand which we proposed for the treatment of philosophical problems as regards their content. I mean the doctrine of sociality. The philosophy of our generation cannot afford to ignore this doctrine.

The study of psychology imperatively demands the appreciation and constant recognition of the fact that the psychic life of the individual is conditioned and influenced in every phase of its development, and in all of its elements, by the social environment, the *milieu*. Members of a social organism by nativity, we are molded and fashioned by society from our earliest infancy. Scientific and religious ideas, moral and aesthetic convictions are instilled into our minds by the power of their

external authority. These affect us in such a way that we are mostly unaware of their influence. This social factor has as yet by no means been sufficiently recognized in psychology. We may reasonably expect great progress in our knowledge of the laws governing human psychic life, as the rich materials furnished us by ethnology, the history of religion and of custom are properly utilized and assimilated by the general body of our knowledge.

Due regard for the social factor is likewise of exceptional importance in epistemology. It is utterly impossible, for example, to understand how religious ideas receive their confirmation except by the coöperation of the social factor. Error and truth are alike the result of the totality of human effort. Even stately reason, proudly presuming to solve the riddle of the universe by its own powers, without regard to previous efforts, ignoring the labors of others and spurning their aid, is shown to have been materially modified by contemporary thought and environment; and this even in the case of those who are apparently the most original thinkers. The task remains for posterity to trace out the social factor in the development of human knowledge through the millenniums of reflective thought and to show clearly what portion of our intellectual possessions is an inheritance from past ages and what we have acquired ourselves. This task is beset with profound difficulties, but it nevertheless promises rich returns.

The social element is in evidence even in aesthetics,

where the opportunity for originality is practically unlimited. The general public, the popular taste and the existing state of culture, leave their impress upon artistic production as well as upon aesthetic appreciation despite our individuality.

But above all in ethics, the social point of view is of fundamental importance. In this discipline everything, the origin, the development, the ideals to be realized, is so thoroughly permeated with social elements that many thinkers are disposed to classify ethics simply as a subdivision of general sociology. Notwithstanding this, however, there is still a large measure of deep-rooted prejudice against it and there still remains much to be done before the strictly social nature of moral obligation will find general acceptance. Even the individual obligation of maintaining one's self-respect contains a social element. The individual, having struggled upwards from serfdom to the distinction of personal individuality, never ceases to be a member of the social body. If he would preserve the dignity of personality, acquired with so much difficulty, he is at once obliged to devote a large share of the powers engendered by his struggle for liberty to the service of the social whole again.

It is thus evident, furthermore, that sociology, which has assumed the task of investigating the laws of social life, will in the not distant future have to be made the basis of the philosophy of mind. It will then become more and more evident that independent and influential personalities have been developed solely by the process

of social differentiation, and that these superior personalities in turn increase the total spiritual possessions of mankind by means of constant interaction. It is not enough that sociology simply explains the force of social obligation. It must also account for the spirit of individual liberty and independence, and indicate how the present stage of development has been effected through the cooperation of the social and the individual factors. This may perhaps also result in points of view which will enable disenthralled personality to discover principles which will lead to still higher development.

Supported by such principles as these and equipped with such methods, philosophy finds courage to undertake its old task once more, namely, to furnish *a theory of the universe*. It has been the aim of philosophy from its very beginning to note the unity in variety and to discover the inherent relation of all things. This increased power and profounder insight furnishes inspiration to approach the old problem once more with renewed courage and zeal.

The unity and strict coherence of the inorganic world seem to have made a much deeper impression on the eighteenth century than on our own. When *Immanuel Kant*, completely captivated by *Newton's* sublime system of thought, exclaims, in his *Natural History of the Heavens*: "Give me matter and I will construct a universe," this proud confidence contains an element which is uplifting and grand. If we remember furthermore that his hypothesis of the origin of the heavenly bodies

still prevails even to-day, we at once perceive that the view which attempts to comprehend the whole neither neglects nor denies the actual constitution of the individual.

Now, since spectrum analysis has revealed the elements constituting the sun's mass; since chemistry has disclosed not only the elements, but likewise the inner structure of the majority of bodies and defined the distribution of the molecules by means of its constitutive formulas; finally, since biochemical investigations have profoundly illuminated the mechanical and chemical processes which constitute organic life; we begin to understand the reason for the many recent attempts to impress the unity and coherence of the processes of nature upon the general consciousness of mankind by the combination of these results into a philosophy of nature.

It devolves upon the metaphysics of the future to apply the methods which have been verified in the investigation of particular problems and thus construct a comprehensive theory of the whole. Metaphysics, therefore, is not banished for all time. It still remains the center towards which philosophy forever strives and around which all other philosophical disciplines are but tributaries.

Scientific metaphysics must of course not demand the impossible. Its postulates must be formulated in harmony with approved methods and it must be possible to construe and systematize the result consistently. In this

sense I have endeavored, by the application of the principle of the function of judgment, verified in the sphere of empirical science, to construe the whole process of becoming, the physical as well as the psychical, as the potential expression of a powerful will, who has given the laws according to which the world process transpires and, in the words of the Psalmist: these laws he will not break.

A concept of deity so conceived furnishes a climax to our theory of the universe such as the unity of our consciousness demands. This is not a postulate of the practical reason as was the case with *Kant*, but of the theoretical reason. We thus apply the form in which pure reason conceives and construes the various separate processes of the world to the universe as a whole, i.e., to the totality of the world-process. The concept of deity is thus conceived somewhat as a subject whose predicate is the total world-process, but at the same time also as substance, the nature of which does not consist in unchanging permanence, but, as *Leibnitz* understood it, in the constant expression of its inherent energy. We must postulate this as the eternally vital source of every physical and psychical process, and the investigation of the laws of this divine will furnishes the sublime problem of all science. An exception to the laws as established from eternity would of course be incompatible with this concept.

It may perhaps be possible by this means to harmonize philosophy with pure religion and thus exalt particular

facts "to that universal consecration where transcendent harmonies pervade the whole." At any rate the aim of all philosophy must forever remain the effort to construct a consistent world-theory, to perpetuate, in enduring thought, the elusive forms of transitory phenomena.

TOPICAL INDEX

- Acquired characters, 190.
- Activism, 184.
- Activistic theory of the concept of truth, 112, 117.
- Aesthetic activity, 196 ff; enjoyment, 197 f; judgment, 196, 223 f, 229.
- Aesthetics, 19, 196 ff, 298, 301, 303 f; double significance of the term, 200; historical, 231; the social factor in, 284, 302; direct and associative factor in, 205.
- Agreement of the judgment with the process adjudged, 117 f.
- Allegorical interpretation of Grecian myths and of O. T., 9.
- Altruism, 259, 273.
- Analysis, The judgment as, 128.
- Analytics, Aristotle's name for Logic, 47.
- Animate and inanimate, 136, 147 f.
- Animism, 151.
- Anthropomorphic interpretation of natural processes, 107, 115; theism, 190.
- Antipathy of philosophy for religious tradition, 8.
- Apperception, 106 ff; transcendental unity of, according to Kant, 107 f; fundamental, 108, 175 f, 193, 223, 297.
- Apriori, (antecedent to experience), 69, 121, 123.
- Art, 197, 200; according to Hegel and Schopenhauer, 203 f; as play, 230 f; as social service, 230; as tribute of love, 232; and science, 234; and religion, 236; and morality, 236.
- Artistic creation, 215, 229.
- Asceticism, 247 f, 253, 267.
- Associates, the consciousness of, as argument against idealism, 80.
- Associative factor in aesthetics, the 205.
- Atom, 124, 151, 185 f.
- Attraction and attractive, 219, 223.
- Attributes regarded as separate objects of thought, 113.
- Authority in religion, 8; in ethics, 260, 273 f.
- Autonomous ethics, 260, 273.
- Beautiful and beauty, 200, 214; and love, 201, 225, objective beauty, 224, 229.
- Biology and the biological method in psychology, 35, 122, 167, 299; in epistemology, 104, 111, 116, 122, 299.
- Body, the, as the prison of the soul, 92; distinguished from the soul, 136; as the vehicle of personality, 137.
- Brain, the, as the physiological condition of psychical phenomena, 38; in the theory of materialism, 141; as system C in the theory of Avenarius, 170; and soul, 148.
- Categorical imperative, 250.
- Categories, 67, 93 f, 123.
- Causality, and the concept, 94, 124, 255 ff; elimination of the concept, 169 f; volitional activity as the primitive form of the concept of, 181; not limited to natural processes, 181 ff.

- Causa sui, 138.
 Centralized organization of man, 132, 175.
 Certainty, objective and subjective 41 f.
 Character, 241, 266.
 Christ, 247.
 Christianity, ethics of, 246 f, 259.
 Confidence in the power of intellect, 7, 58, 250.
 Commonplace, the, inquisitiveness concerning, as the beginning of philosophy, 4.
 Common sense, 83, 293.
 Concept in logic, 44; origin of, 111, 113.
 Conceptual judgments, 114.
 Conscience, 261, 268.
 Consciousness recognized in others as refutation of idealism, 80; the content of, as the only existent reality, 70-80; total, as idealistic hypothesis, 82.
 Consequence as the subject of moral judgment, 265 f.
 Contract theory as explaining the state, 278.
 Conviction and faith, 130.
 Copernican world-theory, 77, 92.
 Copies, ideas and judgments as, 63.
 Cosmological argument of materialism, 143, 147; problem, 185 ff.
 Creation of new psychic energy, 147, 182, 277.
 Criterion of truth, 87, 102, 119; objective and intersubjective, 119.
 Criticism, 58, 60.
 Criticism of knowledge, 58, 64, 65 ff, 299.
 Deaf-mute and blind, 33.
 Deism, 192.
 Determinism, 255.
 Differentiation in psychical development, 110.
 Diomedes as an example in moral judgment, 263, 265.
 Discharge, 145.
 Disposition, 241, 266.
 "Diver, The," (Schiller's poem), 219.
 Division of labor, 280, 301.
 Dogmatism, 58.
 Dualism, 137, 140, 176 f.
 Duplicating the universe, from the viewpoint of idealism, 70; according to Avenarius, 170.
 Duty vs. inclination, 251.
 Economic arrangement of experience, 14, 90, 126, 138, 169; of the constitution of society, 283.
 Economy of thought, 51.
 Ecstasy, 96.
 Efficiency and energy as the subject of evaluation, 263.
 Ego-concept, 168, 256.
 Egoism, 259, 273.
 "Einfühlung," 206.
 Empiricism, radical, 184; in ethics, 258.
 Empirio-criticism, 167.
 Energy, concept and constancy of, 138, 142, 145 f; applicable only to physical and chemical processes, 146; and efficiency as the subject of evaluation, 263; as uniform concept for all natural processes, 160, 181; creation of psychic, 146, 182.
 Esse—percipi, 75 f.
 Ethics, 17 f, 205 ff, 298, 301, 304; evolutionary, 253; in pedagogy, 285 f; sociological character of, 285.
 Ethnic psychology and social psychology, 34.
 Eudaemonism, 246, 258 f, 273.
 Evaluation, psychological analysis of, 262; of intellectual prowess, 263; of physical prowess, 262; of service, 264; of volitional power, 264.
 Evolution, the theory of, 165; its significance for ethics, 253, 258, 273,

- Evolutionism, 165 ff.
 Existence, 68; the concept of, 131.
 Experiment in psychology, 28, 31, in aesthetics, 205.
 Extra-mental (extra mentem—outside of consciousness), 69 f, 79.
- Fact, cult of, 13.
 Faith, belief, 130.
 Family, the, in its moral aspect, 275.
 Feeling and will as primary forms of the activity of consciousness, 37, 159.
 Feeling, pure in aesthetic taste, 196, 218, 238; philosophy of, 19, 199, 238.
 Form and matter, 22, 123.
 Freedom, Metaphysical and psychological conception of, 256.
 Function and functional dependence, 119, 169.
 Functional demands, 104, 212 f, 301; sensual, 212 f; intellectual, 213; emotional, 214 f.
 Functional pleasure, 212 f, 298; its various kinds and their co-operation, 228.
- Genetic explanation of psychic life, 33, 122 f; and biological epistemology, 102 ff.
 God or matter as first cause, a problem of vast practical importance, 100; as the only substance, 157; and the world, 185; and the function of judgment, 192, 307; concept of, 186 ff.; his love, 246 f.; proofs of the existence of, 192.
 Grace, in the Christian religion, 248.
 Grammar, 51 f.
 Greek philosophy, the dominant influence of, in the development of Western thought, 6.
 Gretchen in Goethe's Faust, 233.
- Group, the, as the subject of sociology, 276 f.
- Happiness as resting on activity, 246, 273.
 Heavens, apparent motion of, 77.
 Heidelberg philosophical congress (1908), 101.
 Heteronomous ethics, 260, 273.
 Historical method in aesthetics, 208, 231.
 History, philosophy of, 15, 276 f, 283.
 History of philosophy, 20 ff.
 Homer, the deities of, criticised by Xenophanes, 9, 154.
 Human group, 265, 269 f; dignity, 272, 275, 302, 304; love, 247; obligation, 271
 Humanity, 283.
 Hypertrophy of the cognitive impulse, 83, 300.
- Idea, 88; neither true nor false, 115 f, 129.
 Idea, the Platonic, 7, 58, 149, 156, 233 f; the, as the artificial form of the "typical idea," 234; of the good as the metaphysical basis of ethics, 246.
 Idealism, epistemological, 69, 76, 83; aesthetic, 209; ethical, 259, 273; metaphysical — spiritualism, 138.
 Ideality of the objective world, 21, 71, 76, 79 f; and reality of the objective world makes no difference in practice, 100.
 Ideological moments, 29.
 Illusion in aesthetics, 206.
 Immanent, 69.
 Immortality, the belief in, in Christianity, 95, 247.
 Impressionism, 210.
 Inanimate and animate, 136, 147 f.
 Inclination vs. duty, 251.
 Indeterminism, 254.
 Individual conscience, 271.

- Individual and individuality, see personality.
- Individualistic character of philosophy, 8.
- Induction, 48.
- Intellectualism, 88, 91 f, 149, 297.
- Intellectualistic psychology, 37, 159.
- Interaction between organism and environment, 125, 128; between body and soul, 177 f, 293.
- Interest and interesting, 217, 223.
- Interpretation and evaluation of sense impressions, 101 f, 116 f.
- Interval between interpretation and verification, 117.
- "Introjection," 170.
- Intuitive character of poetry, 216, 227 f.
- Ionia (on the West Coast of Asia Minor), as the birthplace of Greek philosophy, 6.
- Isagogics (Introduction) of Porphyry, Boethius' Latin translation of, as the text-book of logic in the Middle Ages, 47.
- Judaism, the ethics of, 247.
- Judgment, Function of, as the linguistic formulation of fundamental apperception, 112 f, 297; evolution and significance of, 113 f; and the concept of deity, 192 f, 306 f.
- Judgment in logic, 43 f; anticipatory element in, 102, 117; aesthetic, 196, 223; as fundamental form of cognition, 104 ff; as function of the adjudged process, 119; independent and traditional, 128 f.
- Knowledge as means to an end, 102; as belief, 129; criticism of, 58, 64, 86, 299; for the sake of knowing, 104 f; genetic and biological theory of, 103 ff, 297, 300; hypertrophy of the—impulse, 83; intuitive, 97; ordinary meaning of, 62; objective and subjective factors in, 66; origin and development of, 64, 102 f; and self-preservation, 82 f, 104 f, 132; possibility and limits of, 64; problem of, 62 ff; theory of, 50, 62 ff, 86-133.
- Language and logic, 52; as social factor, 88, 114; evolution of, 112; significance of, in cognition, 297.
- Law, philosophy of, 278.
- Law of processes, 12; formulated in conceptual judgments, 114 f; uniformity of phenomena as the sole object of scientific investigation, 70, 74 f.
- Lear, King, 233.
- Life, the aim of science and philosophy to foster, 2 f, 15 f.
- Logic, 17, 39-56.
- Logos, the, 164.
- Love and beauty, 201, 225 f, 231 f.
- Loyalty not an empty delusion, 132.
- Materialism and religion, 10 f; as metaphysical theory, 137, 139 ff; according to Avenarius, 170 f; in psycho-physical parallelism, 179.
- Mathematics as system of apriori truths, 10; and physics understood without knowledge of the historical development, 21; as support of sensualism, 90; convincing force of M— judgments, 120.
- Matter and form, 22, 123.
- Matter or God as first cause, a problem of vast practical significance, 100; and mind, controversy between, 139 f.
- Mechanical argument of materialism, 142, 145 f.
- Mechanical theory of the universe, 187 f.
- Metaphysics, explanation of the

- term, 18; its problems, 133, 135 ff, 306.
- Methods of psychology, 29 ff; introspective, 29 f; experimental, 31 f; genetic and biological, 33 f; combination of experiment and introspection, 36; investigation as the subject of logic, 45 f.
- Monism, 137; of substance, 138, 154; of becoming, 139, 163 f.
- Monotheism of Plato and Aristotle, 9.
- Moral adjustment, 241 f, 249 f, 261 f.
- Morality and art, 236; and religion, 260, 268, 274.
- Moral law, Kants' theory, 251; Fichte's theory, 252.
- Moral philosophy, see ethics.
- Moral rules of life, 243; independent of the moral consciousness, 244, 248; motives, 259; norms and sanctions, 259, 273; purpose of, 258, 273; social character of, 249; the nature of, Socrates' theory, 244.
- Motive, 241, 254.
- Muscular sensations, 32.
- Music, 204, 221, 228.
- Mysteries of the Orphic sects, 95.
- Mysticism, 95 ff.
- Nativism in ethics, 258.
- Naturalism, 209.
- Natural rights, 278.
- Natural science methods in the mental sciences, 13.
- Natural scientists, the, and critical epistemology, 299 f.
- Nature, the love of, 226; philosophy of, 14 f, 160, 185 f, 306.
- Negation—the negative particle, 118.
- Neo-romanticism, 210.
- Norms of action, 243, 274; of artistic creation, 229.
- Number, concepts of, 126 f, 169.
- Objective factor, the, in cognition, 66.
- Occasionalists, 178.
- Odysseus as example of moral adjudgment, 263.
- Oedipus, King, (Tragedy of Sophocles), as example of objective beauty, 224.
- Oida (οἶδα—I know) as example of vulgar sensualism, 89.
- Ontogenesis and ontogenetic, 34.
- Ontology, 18, 19, 133, 135 ff.
- Organic life on the earth, 143; theory of the state, 279.
- Organon, the name given to the whole of Aristotle's logical writings, 47.
- Painting, of modern artists, 217; and sculpture as the source of the functional pleasure of emotion, 221.
- Pantheism, 191, 250.
- Pedagogy, 20, 285 f.
- Perception as the result of fundamental apperception, 110 f, 123.
- Perception, judgment of, 114.
- Personality, 256, 266, 272, 280, 282, 302, 304.
- Phantasy in philosophy, 16 f.
- Phenomenalism, 69 f.
- Philosophy as the queen of the sciences, 1, 11 f; as theory of the universe, 1 f, 305; and pedagogy, 286 f; individualistic and critical, 8; divisions of, 17; history of, 20 f; must be empirical and scientific, 291; must return to common sense, 293; the activistic task of, 184.
- Phlogiston, 131.
- Phylogenesis and phylogenetic, 34.
- Physical and psychical, 173 f.
- Physics as a department of philosophy, 18; and mathematics understood without their respective histories, 21.
- Physiology and psychology, 37 f.
- Play, 203, 211.
- Pluralism, 137 f, 139, 184.

- Polarity, 159.
 Positivism, 70.
 Pragmatism, 98 f, 139, 184.
 Predicate and the predicate term, 112 f.
 Pre-established harmony, 178.
 Principial-coördination, 170.
 Process, concept of, 138; psychological phenomena as mere, 25, 33, 144 f; without substrate, 144 f; laws of, 12.
 Propaedeutic, 20, 54.
 Property, the theory of, as the subject-matter of ethics, 246.
 Proposition, the, as the linguistic expression of judgment, 112.
 Psychological microscope, 294.
 Psychological nature and psychological substance, 22; denied by materialism, 141 f; problem of, waived by psychology, 143 f.
 Psychological phenomenon, its distinctive character, 25, 33, 144 f, 152 f, 170, 178; and physical regarded as similar, 38, 183, 292 f; biological interpretation, 35, 122, 165 f, 299; genetic interpretation of, 33 f, 122, 296; social interpretation, 302.
 Psychological origin of philosophy, 3 f.
 Psychology, 20, 25, 41, 296, 299, 302; and physiology, 37 f; and philosophy, 39 f; identified with physiology of the brain, 141; in aesthetics, 197 f.
 Psycho-physical parallelism, 179.
 Public, the, as a factor in creative art, 230.
 Question, the, 128 f.
 Rationalism, 87 f.
 Reaction, truth as tendency to, 117.
 Realism, naive, 65 f, 70, 83, 135; critical, 70 f, 83 f, 133.
 Reason, Kant's theory of, 93.
 Redemption, the demand for, according to the Orphics, 95.
 Relations regarded as independent objects of thought, 113.
 Religion and philosophy, 7 ff, 307; as elemental in the human mind, 11; and art, 235 f; and morality, 260; philosophy of, 186; science of comparative, 11; social and authoritative, 8; refined by philosophy, 11.
 Responsibility, 255, 257.
 Righteousness, 246.
 Root-terms, 112.
 Routine labor, the obligation of philosophy to elevate, 2.
 Satisfaction, "Disinterested," 202, 211.
 Science, the common aim of, 16; originated from practical necessities, 103 f; and art, 236.
 Sciences, the special, and philosophy, 11 f; as the economic arrangement of experience, 14, 90, 138, 169.
 Secundi Petri, 48 n.
 Self-mastery, 253, 267.
 Semblance and appearance, 76.
 Sensation, 110.
 Sense perceptions, their chaotic character, 103; as the source of truth, 293.
 Sensibility and understanding according to Kant, 87.
 Senses, the specific energy of, 74.
 Sensualism, 88 f, 297.
 Skepticism, 58 ff.
 Social authority of religious dogmas, 8; character of ethics, 249, 252, 304; conscience, 271; factor in aesthetic appreciation and in art, 199; factor in the development of cognition, 88, 114, 284, 303; factor in the life of the individual, 151; factor in psychology, 302 f.
 Social-psychology and ethnic psychology, 34.
 Society, regulations of, as the condition of morality, 276.

- Sociology, 20, 276 f, 304.
 Spiritism, 97, 150.
 Spiritualism, 138, 149 f.
 Spontaneity, the, of mind in the judgment, 116.
 State, the, as moral authority, 276; as the subject of sociology, 278.
 Stick immersed in water, 77.
 Subjective factor in cognition, 66.
 Subject, the, of the judgment, 112; and substance, 123.
 Substance, 94, 123; elimination of, from the natural sciences, 153, 163; theory of the universe, 170; God as the only, 157; the monism of, 154 f; not adapted to the explanation of psychical processes, 152 f.
 Substrate, processes without, 145.
 Succession and causal connection, 125 f.
 Symbolism, 209.
 Symbols, ideas and judgments as, 63.
 Synthesis, the judgment as, 128; creative, 147, 277.
 System, the philosophical as expressing the mental content of the period, 22.
- Technical language of philosophy, 23.
 Technique in art, 207, 230.
 Teleology, 187 ff.
 Teleology of the biological functions, 169 f.
 Terminology, 23.
 Theism, 190.
 Theological problem, the, 185, 186, 190 f.
 Theology, natural and revealed, 10.
 Theory of the universe, a uniform and consistent, as the aim of philosophy, 1 f; as the product of the scientific and artistic labor of philosophers, 9 f, 16; philosophy as, 1, 305; philosophical, as directive of human conduct, 2 f; practical, 71.
- Thing-in-itself, 68, 78.
 Thing in distinction from its attributes, 123.
 Thought as directive of action, 99; as a vital factor, 99 f; economy, 51; of language, 114; instrument of, 6, 9, 11, 22, 94, 113, 127, 161, 170.
 Touch, sense of, apparent objectivity of its data, 41, 67, 74, 77; aesthetic effect of, 214.
 Transcendent, 69.
 Transcendental, 69.
 Truth, 16; as a tendency to react, 117; as relation, 118 f, 128; criterion of, 87, 102, 119; in thought, 67; origin and development, 115; the pragmatic theory of, 100; theoretical as anticipatory storehouse, 102.
 Typical ideas, 111, 232.
 Typical, the, in aesthetics, 233.
- Understanding and sensibility, Kant's theory, 87; as law-giver, 93; as creator, 93 f.
 Uniformity, see law.
 Unity, philosophic desire for, 2; 14, 305.
 Utilitarianism, 252, 259, 273.
- Vital emotion as contradicting the ideality of the universe, 79 f; as the beginning of psychical development, 110.
 Vital processes, 146.
 Volitional impulse as the controlling mass of apperception, 106 f.
 Voluntaristic psychology, 37, 297.
 Will, the freedom of the, 254; the individual, as opposed to the general will, 266; the general, 20, 266, 269 f, 271, 292; and feeling as primitive forms of the activity of consciousness, 37, 159.
 Wonder as the beginning and motive impulse of philosophy, 4, 104.
 World-process, 165.
 World-theory, philosophy as, 1, 305.

INDEX OF AUTHORS

- Abelard, 248.
 Anaxagoras, 140, 186, 188.
 Anquetil du Perron, 226.
 Antisthenes, 245.
 Anzengruber, 172.
 Aristippus, 245.
 Aristotle, 3, 9, 12, 17, 18, 22, 27,
 33, 46 f, 51, 87, 115, 177, 182,
 188, 199, 201, 237, 240, 245 f,
 273, 278.
 Atomists, 86, 185 f.
 Augustine, 92, 238, 248.
 Avenarius, 167 ff, 194.

 Bacon of Verulam, 18 f, 48.
 Bain, A., 56.
 Baldwin, Mark, 51, 57.
 Barth, P., 284, 289.
 Bastian, A., 34.
 Baumgarten, A. G., 200.
 Bayle, Pierre, 60.
 Beneke, F., 253.
 Bentham, Jeremy, 252, 258.
 Berger, A. v., 240.
 Bergson, Henri, 134, 148.
 Berkeley, G., 27, 61, 75, 81, 87,
 149.
 Berthold v. Regensburg, 96.
 Boethius, 47.
 Böhme, J., 96.
 Bridgman, Laura, 33.
 Bruno, Giordano, 156 f, 164, 191.
 Büchner, 59, 141.
 Burckhard, Max, 240.
 Burke, 202
 Busch, Otto, 240.
 Busse, L., 133.

 Carneri, B., 253.
 Carriere, M., 204.
 Cartesians, 249.
 Carus, J. V., 133.
 Charron, Pierre, 60.
 Cherbury, H., 192.
 Christ, Jesus, 247.
 Cicero, 47, 244.
 Cohen, 57, 133, 239, 288.
 Cohn, Jonas, 239.
 Collins, A., 192.
 Comte, A., 70, 259, 277, 279.
 Condillac, 90.
 Copernicus, 131, 156, 168.
 Croce, Ben., 240.
 Cynics, 23, 245.
 Cyrenaics, 86.

 Darwin, 34, 61, 166, 189, 253.
 Democritus, 52, 61, 140, 185, 244.
 Descartes, 59, 92, 140, 149, 157,
 158, 178, 249, 291.
 Dessoir, M., 56, 205, 240.
 Dewey, John, 51, 57, 134.
 Diels, H., 154, 164.
 Dilthey, W., 240.
 Diogenes, 245.
 Döring, Aug., 288, 289.
 Drobisch, M. W., 57.
 Dubos, 202, 213.
 Duns, Scotus, 192.
 Durkheim, 289.

 Ebbinghaus, H., 55.
 Eckhart, Master, 96.
 Eisler, Rud., 23, 134, 289.
 Eleatics, 61, 86, 89, 91, 154.
 Empedocles, 140, 185.
 Epicureans, 27.

- Epicurus, 9, 245.
 Erdmann, B., 57.
 Eucken, R., 150.
 Eudemus, 47.

 Fechner, G., 28, 150, 194, 204 f,
 239, 291.
 Feuerbach, Ludw., 283.
 Fichte, 2 f, 15, 90, 141, 251, 258,
 259.
 Frohschammer, J., 150.

 Germain, Sophie, 217.
 Geulincx, A., 178.
 Gizycki, G., 288.
 Goethe, 159, 165, 189, 191, 216,
 233, 250, 267.
 Goldscheid Rud., 288.
 Gomperz, Theodore, 57, 89, 240.
 Grillparzer, 216, 227 f.
 Groos, Karl, 211, 239.
 Grotius, Hugo, 278.
 Gumplowicz, L., 280, 288.

 Häckel, E., 162.
 Hartenstein, 93, 107, 251, 295.
 Hartmann, Ed. v., 134, 194.
 Hegel, 13, 15, 49, 90, 94, 98, 141,
 159, 160 f, 164, 197 f, 203, 234,
 239, 250, 252, 283.
 Heinze, M., 23.
 Helmholtz, 75, 165 f, 181.
 Helvetius, 259.
 Heraclitus, 164.
 Herbart, 28, 201, 204, 239, 253.
 Herder, 15, 202, 250, 283.
 Hesiod, 154.
 Hettner, H., 240.
 Heurtin, Marie, 33.
 Heymans, G., 134, 194.
 Hippocrates, 27.
 Hobbes, T., 249, 278.
 Höffding, 56, 288.
 Holbach, 59, 140.
 Home, H., 202.
 Homer, 89, 154, 232, 263.
 Horace, 201.
 Horwicz, A., 56.

 Hume, David, 27, 60 f, 76, 87, 125 f,
 168, 249.
 Husserl, E., 57.
 Hutcheson, Fr., 249.

 Jamblichus, 95 f.
 James, W., 56, 134, 139, 184, 256.
 Jevons, Stanley, 57.
 Jodl, Fr., 55, 181, 287.
 Joël, Karl, 97, 256, 288.
 Joule, J. P., 181.

 Kant, 15, 19, 22, 48, 51, 61, 67, 69,
 76, 78 f, 85, 87, 90, 93, 98, 103,
 104, 108, 121, 125, 141, 165, 168,
 192, 196, 200, 202, 211, 213, 223,
 250 f, 258, 259 f, 291 f, 295, 305.
 Kassowitz, M., 56.
 Katscher, L., 242.
 Keller, Helen, 33.
 Kirchhoff, G. R., 90.
 Kleinpeter, H., 134.
 Kreibitz, J. Kl., 134, 288.
 Külpe, O., 23, 36, 56, 205.

 Laas, E., 70, 132.
 Lamarck, 166, 189.
 Lamettrie, 59, 140.
 Lange, Fr. A., 139, 194.
 Lange, Konrad, 205 f, 240.
 Laplace, 165.
 Lasalle, Ferd., 164, 283.
 Lavoisier, 131.
 Lazarus, M., 34, 211.
 Leclair, A. v., 70, 81, 133.
 Leibnitz, 149, 178, 307.
 Leonardo da Vinci, 236.
 Lessing, 202.
 Leucippus, 58, 140, 185.
 Liebmann, O., 133.
 Lilienfeld, P. v., 289.
 Lipps, Th., 56, 205 f, 239 f, 288.
 Locke, J., 27, 61, 87, 90, 249.
 Lotze, H., 28, 56, 150, 194.
 Lucretius, 27.

 Mach, Ernst, 21, 51, 56, 78, 90,
 102, 134, 167 f, 180.

- Malebranche, Nic., 178, 249.
 Marx, Karl, 283.
 Mayer, Rob, 181.
 Megarian School, 46.
 Menger, Anton, 289.
 Meumann, E., 290.
 Meyer, Th. A., 240.
 Meynert, Th., 75, 300.
 Michael Angelo, 236.
 Mill, James, 27.
 Mill, J. S., 27, 50, 70, 129.
 Molescott, 141.
 Montaigne, M. de, 60.
 Morgan, Lewis H., 289.
 Müller, Johannes, 74.
 Münsterburg, H., 56, 133.

 Natorp, P., 134, 234, 289.
 Neokantians, 70, 78.
 Neoplatonists, 27, 95 f, 149.
 Neopythagoreans, 95 f.
 Newton, 305.
 Nietzsche, Fr., 254, 268.

 Occasionalists, 178.
 Oppenheimer, Fr., 280., 289.
 Orphics, 95, 247.
 Ostwald, Wilh., 14, 181.

 Parmenides, 155.
 Paulsen, Fr., 23, 270 f, 288, 290.
 Payot, Jules, 289.
 Ramus, Peter, 48.
 Pfänder, A., 56.
 Phidias, 236.
 Philo, 9.
 Pierce, Charles, 99.
 Plato, 3, 7, 9, 18, 27, 46, 58, 92,
 115, 121, 149, 155, 188, 197, 199,
 201, 234, 246, 274, 277.
 Plotinus, 18, 27, 97 f, 149, 197 f,
 201.
 Popper, Josef, 217, 240.
 Porphyry, 47.
 Prantl, C., 57.
 Proclus, 96.
 Protagoras, 9, 89.
 Pyrrho, 59.

 Quintilian, 47.

 Raphael, 232, 236.
 Raumer, K., 289.
 Rée, Paul, 288.
 Rehmke, 70.
 Rein, W., 289.
 Rey, A., 134.
 Ribot, 180.
 Riehl, A., 23, 133.
 Rokitansky, Karl, 300.
 Rousseau, 278.
 Royce, J., 150.

 Savigny, 61.
 Schäffle, A., 279, 288.
 Schelling, 90, 141, 159, 197 f, 203 f,
 250.
 Scherer, Wilh., 240.
 Schiller, F. C. S., 102, 134.
 Schiller, Friedrich, 5, 16, 132, 203,
 211, 216, 219, 235, 254.
 Schiller, H., 290.
 Schmidt, Leop., 287.
 Schopenhauer, 47 n, 76, 150, 197 f,
 204, 226, 253, 259 f.
 Schroeder, E., 57.
 Schroeder, L. v., 268.
 Schubert-Solden, 70.
 Schultz, Julius, 134.
 Schuppe, E., 70, 133.
 Shaftesbury, 202, 249, 260.
 Shakespeare, 232, 233, 237.
 Sidgwick, H., 288.
 Siebeck, H., 27, 56.
 Sigwart, Chr., 56.
 Simmel, G., 288, 289.
 Smith, Adam, 27, 249, 259, 260.
 Socrates, 46, 244, 245 f, 260, 270,
 272.
 Sophocles, 224.
 Spencer, Herbert, 2, 35, 133, 166,
 189, 211, 253, 279 f, 282, 288.
 Spinoza, 98, 156, 167, 174, 191,
 250, 254.
 Spitzer, H., 205, 240.
 Stein, Heinrich v., 199, 239.
 Stein, Ludwig, 99, 289.

- Steinthal, H., 34.
Geoffroy-Saint-Hilaire, 166.
Stöhr, A., 57.
Stoics, 9, 27, 86, 140, 164, 245.
Sturt, 134.
- Tarde, G., 289.
Tauler, Joh., 96.
Thales, 6.
Theophrastus, 47.
Thomas, of Aquinas, 274.
Thucydides, 231.
Toland, 192.
- Überweg, Fr., 23, 65.
Unold, Joh., 288.
- Verworn, M., 195.
Villa, G., 56.
Vischer, Fr., 204, 239.
- Vogt, K., 59, 141.
Volkel, J., 133, 205, 239.
- Wagner, Rich, 221 f.
Ward, Lester, F., 289.
Westermarck, Ed., 242, 265, 287,
298.
Willmann, Otto., 289.
Winckelmann, 202.
Windelband, W., 24, 55.
Wolff, Chr., 18 f, 200.
Wundt, W., 23, 28, 34, 38, 45 f,
50, 55, 133, 146, 149 f, 182, 194,
240, 277, 287.
- Zeller, Ed., 240.
Zeno, the Eleatic, 155.
Ziegler, Theob., 287, 290.
Ziehen, Th., 56, 290.
Zimmermann, Rob., 204, 239.

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