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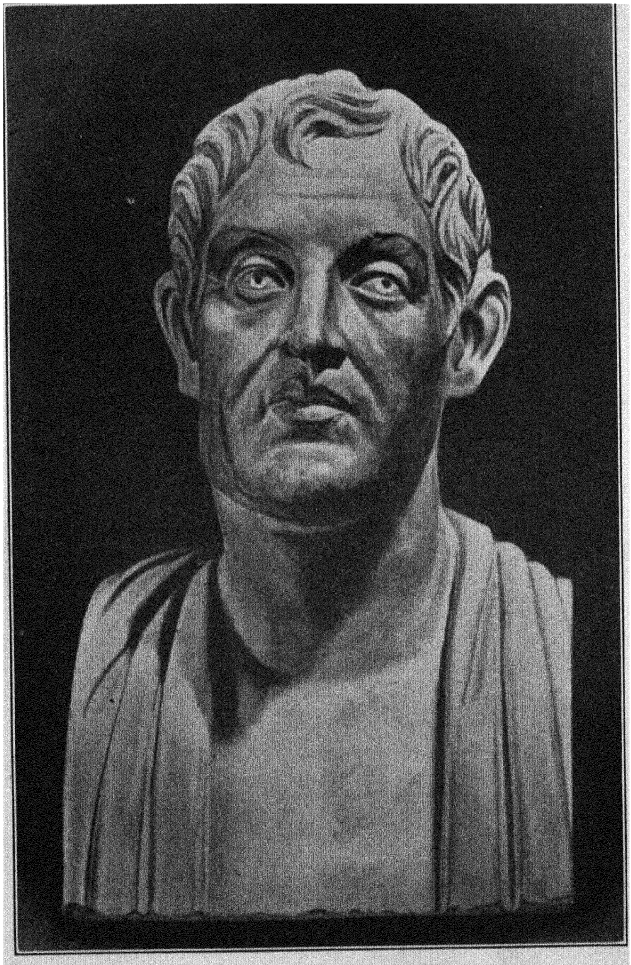

ARISTOTLE. [*Frontispiece.*

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HISTORY OF
PSYCHOLOGY

A SKETCH AND AN INTERPRETATION

BY

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TO

EZEQUIEL A. CHÁVEZ

PROFESSOR, DEPUTY, FORMERLY UNDER-SECRETARY OF PUBLIC INSTRUCTION AND FINE ARTS IN MEXICO; A ZEALOUS PATRIOT, A PROFOUND SCHOLAR AND A LOYAL FRIEND

PREFACE

THE proposal to prepare the History of Psychology for this series appealed to me for other than the usual reasons. In the first place, singular as it may seem, there is no history of psychology of any kind in book form in the English language.[1] Some years ago, I projected as Editor a series of historical works to be written by various authorities on central psychological topics, the whole to constitute a "Library of Historical Psychology." These works, some twelve in number, are in course of preparation, and certain of them are soon to appear; but up to now no one of them has seen the light. The present little work of course in no way duplicates any of these.

In French, too, there is no independent history. The German works, of which there are several,[2] had become somewhat old when last year two short histories appeared, written by Prof. Dessoir and Dr. Klemm. I refer to these again just below.

Another reason of a personal character for my entering this field is worth mentioning, since it explains the scope and method of the present sketch. I had already prepared much of the same material for a

[1] Since this was written the *History of Psychology, Ancient and Patristic*, by G. E. Brett (1912), has appeared; and Prof. Dessoir's *Abriss*, mentioned below, has been translated into English.

[2] The titles are given in the list of "Sources" at the end of Vol. II.

course of sixteen lectures, given in my capacity of Special Professor in the School of Higher Studies of the National University of Mexico (April to June, 1912). These lectures have been entirely made over, in being thrown into book form; but the original purpose appears both in the plan and in the essential idea ruling the historical interpretation itself. The point of view adopted—that of a parallelism between racial reflection and individual thought, which leads to an account of the history of psychology considered as the rise and interpretation of the mind-term [1] in the dualism of mind and body—this point of view I have been interested in carrying out. The merely narrative sort of history-writing—useful as its results are—makes no appeal to many, among whom I count myself. In a subject like psychology it is peculiarly futile, since the views and theories of men cannot be ascertained and reported as earthquakes and battles can. They are themselves matter of interpretation.[2] Had it not been, therefore, for the larger interest in the principle of interpretation, I should not have cared to undertake the task. The

[1] It leads to the consideration of physical science as the development of the theory of the matter-term of the same dualism, a correlation merely hinted at in certain places in passing.

[2] The place of Socrates and Socratic views, to note a case in point, is a matter of wide divergence of opinion, although we have two able and almost contemporary expounders. From the important place assigned to the "subjectivism" of Socrates in the present volume, opinions vary to the extreme of the omission of Socrates altogether, as by Dessoir. It would seem, however, that any plausible hypothesis as to the course of reflection would restore "Socratism," if not Socrates, to an important place. One may cite the well-known saying as to the authorship of the *Iliad:* "If it was not written by Homer, then it must have been written by another man of the same name." We may recognise the Socratic contribution to thought, leaving aside the question of mere fact as to whether it is essentially due to Socrates himself or to "another of the same name."

point of view itself is explained in the Introduction; and the results of its application are gathered up in the last chapter. It should be added, however, that the use of this principle of interpretation has in no way influenced the statement of historical fact or the exposition of theories. I hope the opinion of competent critics will confirm this assertion.

The book is to be looked upon as a sketch; no more than this. Two possible ways of treating the subject are well illustrated by the recent handbooks of Dessoir and Klemm, the former entitled *Abriss einer Geschichte der Psychologie* and the latter *Geschichte der Psychologie.*

Each has certain defects of its plan. Dessoir expounds the theories in their historical setting and with reference to their philosophical significance. The result, while on the whole of the highest competence, must perforce leave so much unreported or merely hinted at that the reader gets little idea of the richness of the sources. Moreover, from limitations of space, the author can give but a slight and impressionistic-seeming account of nineteenth-century scientific psychology, and that on national lines. Klemm, on the other hand, adopts the topical method, and gives us important notes on the development of views on this or that special subject. But anything like completeness in such a task is quite impossible in one small volume. As remarked above, the series projected to serve this purpose in English will have ten or twelve large volumes. Klemm's method results also in the omission of many topics, in this case naturally those in which the German psychologists have not had the leading part; as, for example, the subjects pertaining to the genetic method, its problems and results. Incidentally, it may be remarked that in these

and the other German works the contributions made to the science by Germans have not been given too little importance—a remark not intended in a disparaging sense.

It follows that a rule of interpretation, such as that adopted here, to guide the selection and govern the estimation of particular facts and theories, is a real *desideratum* in a short sketch like this. I find, in the result, that the entire psychological development down to the nineteenth-century scientific movement is illuminated by it and given a larger interest. This is true, I take it, because the hypothesis adopted accepts as subject of the history just the problem about which all the minor topics arrange themselves: that of the theory of the soul or self. Omissions in particular fields, and even mistakes [1] in the report of particular results or theories, should not impair the essential truth of the account as a whole. I have found the work of Harms, *Philosophie in ihrer Geschichte, I. Psychologie*, very suggestive because of the author's constant recognition of the problem of dualism.

As I have already intimated, the principal embarrassment arises from the variety of problems and wealth of results of nineteenth-century psychology. The earlier works have generally brought the account down only to Kant or Herbart. If one includes the more recent work, the treatment must be selective. This I have frankly recognised; and in the chapters devoted to nineteenth-century psychology I have reported simply what are, in my opinion, the most significant features

[1] Mistakes which could hardly be entirely avoided. No writer—least of all the present author—could pretend to be equally conversant with the literature of all the periods, ancient, mediæval, and modern. He should expect to see some of his authorities challenged, and should welcome expert correction.

of the entire modern movement. The selection has been made, however, with a view to illustrating further the interpretation which looks upon psychology as a body of knowledge and theory about the mental principle or self.[1]

By preserving this conception one is able to pass in review nearly all of the relatively distinct new departures—social, genetic, experimental, affective, aesthetic—and by a partial statement of results illustrate at least their problems and methods.

J. M. B.

January, 1913.

[1] A radical definition of psychology, for its own purposes, as the "science of selves," has been advocated by Prof. W. M. Calkins; see her historical work, *The Persistent Problems of Philosophy* (1907).

PART I.

PRELIMINARY MATTERS

CHAPTER I.

Introduction: Racial and Individual Thought.

IN writing a historical sketch, the writer's first duty is to make clear what he is writing about. And while a definition of psychology, in its relations to other sciences and to philosophy, would be open to debate, still the general field that it includes is plain. Like all science, psychology is knowledge; and like science again, it is knowledge of a definite thing, the mind.

How mind in turn is to be defined is not here and now our task, but rather to trace the ways in which it has been defined. A history of psychology is nothing more nor less than a history of the different ways in which men have looked upon the mind. We are going to trace the ways in which man has historically thought about or attempted to understand the soul, mind, or spiritual principle.

It is only to put this a little differently, to say that the subject matter of psychology, when it is historically traced, is the way or ways in which men have thought about the "self"; for the self is always what mind more or less clearly means. As we shall see, this meaning is crude enough when it starts out, the self that the mind means. In the early periods, it is

simply the significance attaching to things as not being dead or inanimate. Deadness or lack of animation was overlooked in primitive times; all things were found to have a mysterious sort of agency similar to that of personal agents and actors. All beings fell in one class; everything was looked upon vaguely as having an anima or indwelling soul. But when differences began to be discerned, and things were classified by their properties and behaviour, then the momentous and compelling distinction came between objects that were really selves or conscious beings, and those that were merely dead or inanimate things. Once come, this distinction made psychology as such possible.

The development of the meaning attaching to the personal self, the conscious being, is the subject matter of the history of psychology. The problem of psychology is the interpretation of minds or selves, and all of its subordinate problems are those pertaining to the several parts of this great whole meaning, the self; so the history deals with the course of development of this interpretation.

We may say in brief, therefore, that the science of psychology reflects the ways in which the human mind has been able at various epochs to apprehend or interpret itself; and that the history of psychology is the history of the modes in which these attempts at interpretation have taken form. It is the history of the more or less systematic forms of reflection upon self-consciousness.

I say reflection upon self-consciousness, because it will not do to say self-consciousness simply, without further explanation. All adult human beings are conscious of self in some sort, and so were primitive men—endowed with the ability to judge objects to be different

from and remote from themselves. But such consciousness, or self-consciousness, is not itself sufficient; it must pass into reflection. Not only to be conscious of self, but to have some sense, impression, or idea of what the self is, is necessary to give the "interpretation" which is available for history. This means that the self must take in or apprehend that it is thinking of itself in a certain way. Let us illustrate.

Suppose we say, as we must, that the early Greek philosophers, Thales and the others, did not have a refined or clear view about the self; that is, that their psychology was crude and undeveloped. This means that if one of them had been called upon to explain what he understood the self to be, he would have given what we would now call a vague and insufficient reply. He would have pointed to some fluid and subtle physical agent, saying that the self or mind was like that. He would not have distinguished between mind and matter. But he would still have been personally self-conscious. He would have distinguished between himself and things, and between himself and other selves. His limitation would have been that he could not mean by the self what later thinkers could mean; he could not interpret it as they did. When he talked about self, describing the fact of his own self-consciousness, it would have been in terms showing that his thought on the subject was crude and lacking in essential distinctions.

It will be of interest to define our topic in this way; for when we consider that it is the human self that each of the great thinkers sought to understand and interpret to his fellows, we see that their attempts, taken in their succession, will show the progressive development of what we may call racial or social self-

consciousness. They will show, each in turn, the type of thought about the self which is fixed in a society or race as its understanding of its own nature and faculties. A distinction must be made, indeed, when we interpret human institutions, between those customs, rights, etc., which are spontaneous, due to gregariousness, natural imitation, tradition, etc., and those which are due to deliberate co-operation, thought, interpretation of nature and man. These latter reflect directly the way individual men are at the time thinking about and interpreting the self, one another, nature, God. The history of religion, for example, is a history, just as that of psychology is, of the ways in which men have interpreted self-conscious beings—in this case superhuman spirits: God, or the gods—and religious institutions vary with these interpretations. The deity cannot be thought of as more refined or more moral than the interpretation of the self at the time will allow. If the self consists of "thin vapour," then God as a self must be thin vapour also. The social interpretation shown in institutions follows upon that of the individual thinker; it cannot anticipate the latter nor can it surpass it.

Our history, then, becomes valuable as showing the stages in the evolution of racial self-consciousness. All along we find that social life—religion, politics, art—reflects the stages reached in the development of the knowledge of self; it shows the social uses made of this knowledge.

An analogy is current between racial evolution and individual development; we hear of the "childhood" of the race, and of its growth from childhood to mature manhood. We now see that there is more in this than mere analogy or a popular figure of speech.

When men are thinking of themselves simply or "childishly," and are building upon such thoughts institutions of like simple and childish character, then there is a real childhood of the race. And when, with the development of finer thoughts and interpretations of personality, institutions and racial things in general grow more complex and refined, then we may say, in more than a figure, that the race is growing up into maturity. It suggests itself, indeed, that in social evolution we may see a re-statement of the great stages of individual development; that individual thought may show stages which recapitulate those of racial evolution—a parallel similar to the "recapitulation" recognised by biologists in the evolution of organisms. The individual's development in consciousness of self recapitulates, we should then say, the evolution of self-conscious reflection in the human race.

Such a problem becomes complicated when we deal, as we do in the history of psychology, with the development of reflective self-consciousness; for we are not writing a history of human institutions, but of a human science and its effect on institutions. To get any advantage from such a principle, we should have to discover that the racial stages in the interpretation of the self, culminating in the scientific and philosophical interpretation, have been unrolled "concurrently," or in the same serial order, with the stages of development of individual self-consciousness.

Put in this way, the problem becomes for our purposes the following: Do the racial ways of thinking of the self, seen in the theory or science of the mind known as psychology, show results of a progressive character which are in nature similar to those reached by individual thought?—and this despite the fact that

these racial thoughts occur in the minds of single men, who are themselves full-grown and reflective? That is, to put the question concretely, why do we find Thales, himself adult and reflective in thinking about the self, to represent so simple and crude a stage of racial interpretation?—and what is the rule of progress in succeeding epochs, whereby later representative thinkers achieve higher and more refined results? Is it the same rule of progress as that shown by the individual's growth from crude to mature self-consciousness?

In answer to this, we may say that the facts, on the side of the individual, upon which the parallelism is based, are clear. We find the facts of the development of the individual's consciousness of self sufficiently well known. The child, as recent genetic psychology has shown, is entirely dependent upon society for the materials of his thought of self; his thought is dependent upon the thoughts already current in his social circle. He absorbs what society already thinks; and his originalities, in the way of further refinement, are slight. He imitates social "copy," and absorbs social tradition. The character *he has in being a self,* at whatever stage of development, and the character *he gives to the self,* in his thought about it, are different things. Just as, in the case of Thales, we say that the philosopher had a mind full-grown for reflection, but was still dependent upon society and its institutions for the material of his thought; so also the maturing child's thought of self, at each stage, is what he gets from his social environment, and makes use of to the extent of his ability. The philosopher and the child each uses the social sources of knowledge to the best of his ability. But however great his ability neither

the one nor the other can create something out of nothing.

The reason of the close concurrence between the individual's progress and that of the race appears, therefore, when we remember the dependence of each upon the other. The individual can think in this way or that only provided the race in the midst of which he lives already thinks, or thinks "toward," the same result; and the racial thinking in this way or that is only what it is because earlier individuals have thought in this way or that. So we should expect no great departure on one side or the other from lines of thinking which are common to the two. The individual equips himself socially before he thinks independently; and society thinks progressively only as individuals are its mouthpiece.

To whatever extent this idea may be finally justified, it is an extremely attractive one. Here are two great movements, one that of the individual growing constantly more competent to understand himself and to communicate what he understands; and here is society, made up of a series of generations of individuals, doing precisely the same thing and doing it upon precisely the same mass of materials. It is on the surface likely that the series of critical periods in both, marked by new modes of accommodation and due to new crises of a natural, moral, and political sort, would show a general serial correspondence.

To the writer it has been surprising to see how closely the gropings of the thinkers who represent the racial undertaking, the philosophers, are explained for the historian by comparison with the gropings of the individual's struggle to achieve a full reflective self-consciousness. The crises are the same, the problems

and embarrassments the same, the solutions the same. In a later chapter,[1] the matter is carried further. Our present purpose is simply to justify the use we make of the analogy in various places as we proceed. Further details of the concurrence itself will appear in the light of the sketch of the individual's progress given in the later connection.

Adopting a preliminary division of the entire history, in accordance with this guiding principle, we find the great epochs in the history of thought about the mind to be as follows—

1. The Period of Pre-historical and Pre-logical Interpretation, occurring in primitive peoples, mystical and emotional in its character. It is the period of "psychosophy," [2] preceding psychology. It corresponds to the early a-dualistic and practical period of the child's apprehension of the self.

2. The Ancient or Unscientific Period, covering the development of Greek thought, which we may call the "Greek Period." It corresponds to the unreflective stage of the child's thought of self, the period of the origin of dualism. It is unreflective in the sense that in this period the view of the self is not exact or critical, not the subject of distinct definition, but remains incidental to the larger view of the world or nature taken as a whole. It has three sub-periods: the "projective" or Pre-socratic, the "subjective" or Socratic, and the "objective" or Aristotelian. In Plato, the motives of "ejection" and æsthetic reconciliation are present, mediating the transition from Socrates to Aristotle.

[1] Chapter VIII of Vol. II.

[2] A term used by Dessoir, *Geschichte der Psychologie* (1911; Eng. trans., 1912).

3. The "Mediæval" or "Substantive" Period, so named from the fact that in it the great distinction arose between mind and body as different and distinct substances. It culminated in the explicit dualism of Descartes. It corresponds to the stretch of development of the individual which culminates in a similar dualism. Historically, this allowed of the separation of the problems of mind from those of body, and justified the rise of Psychology, the science of mind, in distinction from Physics.

4. The Modern Period, or the epoch of reflective and scientific interpretation. It corresponds to the development of the individual's reflection in which the self is both objective matter and subjective principle. The subject and object selves are distinguished. Mind and body become presuppositions of reflection: spheres of reference for all sorts of experience. Psychology as a science develops its peculiar body of knowledge and its exact methods of investigation.

These great divisions will constitute the Parts of our study, the last period being subdivided into two. The further justification of this division and its corroboration, as being a fair way of utilising the concurrence of racial and individual thought, will appear as we proceed.[1]

It results from this general plan that we are not to catalogue or even to report single theories or discoveries simply as historical facts. It is rather the conception entertained of the mental life as a whole—its principle, and its relation to the body, to the world, and to God —that we are to trace out. This gives us a single problem and a central one; the various solutions being

[1] For the detailed filling out of this scheme the Tables of Contents (Vols. I, II) may be consulted.

presented in their actual genetic and historical order. Of course, the great discoveries of this thinker or that should be mentioned; but in each case they are kept subsidiary to the theory of the mental principle itself. That is, we are concerned with the science itself, its subject matter and method, not primarily with the detailed results of observation.

CHAPTER II.

Primitive Thought: Psychosophy.

THE history of a science may be conceived in a broader or a narrower sense, according as we place greater or less emphasis on the word "science." If we mean science in the strictest sense, the science which is developed through exact observation and experiment, often called "positive" science, the history is in all cases very brief and very definite. But if we include the more or less scientific and pre-scientific conceptions and interpretations of the subject under consideration, which have been entertained and taught, history becomes at once more extended and more vague. Astronomy was preceded by astrology, geology by cosmogony, chemistry by alchemy, medicine by magic, theology by theosophy; and in each case, the rise of positive science has meant the transition from vague mystical and metaphysical interpretations of the things observed to the sober and disinterested endeavour to discover facts and formulate laws.[1]

Psychology more than any other science has had its pseudo-scientific no less than its scientific period. The occultisms, spiritisms, mysticisms, psychic magics, pseudo-religious "isms" of all times, ancient and modern, and of all races, oriental and occidental, have

[1] The exact requirements of the positive science of psychology are stated later on; see Chap. IV of Vol. II.

claimed the right to call themselves psychological. Each makes pretence to a certain way of thinking of or interpreting the mind, soul, spirit—whatever the spiritual principle is called. Each shows us how a period—a succession of men—has understood and endeavoured to explain its own mental being and activity. "This is the sort of thing we souls are," say equally the sorcerers, the ghost-seers, the religious prophets, and the speculative thinkers. "We are animated bodies," "we are warm air," "we are astral presences," "we are indivisible atoms," "we are ghosts in migration," "we are the seeds of things," "we are fallen gods," "we are pure spirit"—all these and many more are types of psychosophic opinion which have at one time or another gained currency and played their part in practical and social life. They are only by indulgence entitled to be called science.

Modern psychology, the science proper of psychology, gives us, it is true, only another interpretation. But it is based upon sounder data, acquired by safer methods, and confirmed by broader induction and experimentation. Still, taken as a whole it sums up what we think, and think we have a right to think, about the soul or self. The knowledge of science takes the place of the guessing, conjecture, superstition, speculation of the pre-scientific views; but still, like them it is an interpretation of mind; a statement of what, do the best it can, the human mind understands itself to be.

This consideration justifies us in taking the broader view of the history of psychology. The narrower scientific interpretation of mind plays an important theoretical rôle; but it is doubtful whether it is to-day as influential practically as the mystical unscientific

views which arose earlier and dominated human thought for long ages.[1]

The philosophical historian seeks to discover the rule of progress in the historical movement as a whole; to see why certain views arose before others and after still others—the entire series exhibiting the growth of man's knowledge and opinion about his own nature. If we call each view entertained at any time an "interpretation" of the mind, our question then is this: Has there been any continuous evolution of interpretation?—is there a primitive type, followed by a more rational and refined type, this in turn perhaps succeeded by the scientific type?—are there genetic steps or stages arising in a continuous historical order, in the development of the human understanding of the human mind?

The historian is here confronted by a problem which has exercised both psychologists and students of social evolution. On the philosophical side, one thinks at once of the famous "law of the three stages" of Auguste Comte, according to which human thought, racially considered, passes in order through three stages, called by him the "theological," the "metaphysical," and the "scientific." Apart from the details, it is conceded by later writers that Comte's conception was a remarkable first attempt to treat the historical progress of human thought as proceeding according to law: a law by which the interpretation of the world unfolds genetically. He actually pointed out the three supposed stages of this progress.[2] Such attempts as

[1] It is curious that while scientific knowledge has effectively overcome mystic and occult views in other provinces, in this field the latter have not surrendered, but have maintained themselves without great change.

[2] See the recent excellent treatment of the question by Höffding in *La Pensée humaine*, pp. 109 ff., who applies to the stages the terms "Animism," "Platonism," and "Positivism."

that of Comte rest upon the characteristics of the various epochs of thought as actually shown in history. A more speculative endeavour to interpret genetically the entire historical movement of human thought is seen in Hegel's philosophy of history.[1]

It is evident, however, that such an attempt, if it is to be comprehensive, should not confine itself to those more systematic and explicit views of the world and the soul to which one may give the names science, metaphysics, and theology. All these considered as such show the results of reflection, or of thought thrown into more or less articulate form. As we shall see below, in its beginnings among the Ionians, philosophy was already somewhat reflective and aimed at being logical. Early religious mysteries and rites tended to take on a measure of rational formulation in dogmas. Accordingly, it is necessary to take the question farther back; to inquire into the types of belief which lie in the darker periods, before the rise of those logical formulas in which spontaneous belief seeks to justify itself. The characteristics of primitive and pre-historic knowledge and culture—considered as showing crude first interpretations of nature and man—should be investigated. They are genetically preliminary to the logical and reflective types of thought.

In this task the work of the anthropologists is directly available. They have attained a constantly clearer understanding of the modes and results of early racial thought—the thought of primitive man. Later on we are to take account more fully of the results. Here we may note especially the distinction emphasised in the recent work of Lévy-Bruhl,[2] who, following the

[1] Hegel, *Die Philosophie der Geschichte* (trans. in the "Bohn Library").

[2] L. Lévy-Bruhl, *Les Fonctions mentales dans les Sociétés inférieures* (1910).

leading of recent genetic psychology, separates primitive thought, as being "pre-logical," from the "logical" thought of civilised man. The primitive precedes the reflective; the pre-logical, the logical. If we admit that there is a stage of interpretation so primitive that it may be called pre-logical, then this period is to be recognised as coming before any sort of intentional speculation.

The results of this procedure are in striking agreement with those of the later researches in genetic psychology. Work in mental development has shown the great stages through which the normal individual mind passes in growing up to maturity. The safest and most striking distinction is that between the pre-logical period, in which the individual remains logically undeveloped, and the logical, in which the reflective powers are fully matured. The characteristics of the pre-logical are made out with sufficient clearness to serve at least the negative purpose of indicating what the individual at this epoch cannot do.[1]

These indications confirm the idea already suggested of a general analogy, if not an exact parallel, between the two sorts of development, the individual and the racial. The individual mind goes through a continuous growth from infancy to maturity, certain stages of which are so marked as to be well designated by certain terms. Racial thought has also gone through a continuous evolution, the stages of which present striking analogies to those of the individual development.

In reaching actual results, the British school of anthropologists was first in the field.[2] The outstand-

[1] See the detailed treatment of the writer's *Thought and Things*, Vol. I (1906), where this use of the term "prelogical" was suggested, and the Preface to Vol. III (1911) of the same work.

[2] See E. B. Tylor, *Primitive Culture* (1871); J. G. Frazer, *The Golden Bough*, 2nd edition (1900).

ing principle of explanation of this school is that of "animism," the primitive man's reading of soul into nature. All nature to the savage is living, resourceful, dynamic, semi-personal; and as such it is capable of good or ill to man. The recognition of the facts of animism, however, lost much of its value as the well-founded discovery it was, through the inability of these writers to conceive of the "soul" save in one way—after analogy with the civilised man. The "ejected" souls, the souls with which primitive man animates nature, could not be of different grades or modes—souls in which this or that faculty might be undeveloped, this or that interest predominant—because the ejecting agent himself, the savage, was looked upon as having always one and the same sort of mind. The genetic idea of a real evolution of mind, and of its products in social life, as seen in racial history, even when formally accepted, could not be fruitfully applied in the absence of a functional and dynamic conception of mental operations.[1]

In Germany, the beginning of a racial or folk-psychology was early made by Waitz and Steinthal.[2] A series of later publications of lesser importance are summarised in the treatise on folk-psychology by Wundt.[3] In this work the rich resources of modern research in ethnology and psychology are made use of for the interpretation of primitive thought and institutions.

[1] See the criticisms of the British school, somewhat overdrawn, by M. Lévy-Bruhl, in the work just referred to.

[2] Th. Waitz, *Die Anthropologie der Naturvölker* (1870–1877); H. Steinthal, *Mythus und Religion* (1870).

[3] W. Wundt, *Völkerpsychologie* (1900–1909). This work is less effective because of the writer's tendency to abstract classification and schematism. See also the author's condensation of the work in one volume, *Elemente der Volkerpsychologie* (1912).

It is in France, however, that a school of thoroughly genetic sociology and ethnology has been founded. Starting out from Positivist premises, the French writers have considered primitive culture from a purely objective and collective point of view. An early work by Espinas on primitive invention[1] (technology) traced the origin and development of practical discovery and invention, emphasising the social and religious motives in the practical life of early societies. This direction has been pursued by the later French investigators, who have formulated the principle of "collective representation," "*représentation collective.*" According to this principle, primitive life is dominated by a body of essentially collective thought, usage, and authority, which replaces the individual types of thought and association reached by the analysis of the British school.[2]

The result is a view which, while too "positivist," in the narrow sense of Comtean, to be called psychological, nevertheless reacts upon the theory of savage mind and thought, and meets half-way the results of social psychology. The mass of "collective representation," another name for "tradition" broadly understood, replaces and prevents individual thought, to such a degree that a real distinction has to be made between primitive and civilised mental processes. Savage thought is "pre-logical," over against civilised thought, which is "logical." Pre-logical primitive thought is "mystical," emotional, practical, dominated by the interests of social community and utility; while logical thought is formal, theoretical, and objective,

[1] A. Espinas, *Les Origines de la Technologie* (1897), a work not sufficiently appreciated in English-speaking countries.

[2] Their results have appeared in the annual *Année Sociologique*, and in the works of the editor, E. Durkheim, and his associates.

ruled by the laws of contradiction, consistency, and proof.

This outcome is further sharpened by the formulation of the "law of participation," announced by Lévy-Bruhl as the most general principle of organisation to be found in primitive thought. According to this law, all objects and persons "participate" in the mystic meaning authorised by the collective representation or group-tradition, such as that of the totem-animal of the tribe. In virtue of this common participation, objects and persons lose what we should call, in our logical modes of thinking, their singular identity, their local and temporal position, their self-hood, etc. They interpenetrate one another. All logical and objective distinctions as such go by the board; the savage thinks in terms of the larger unity of the mystic meaning and presence. Animism is a phase of this participation of personalities *inter se*.

Not only *does* primitive man not think logically, we are told; he *cannot*. He is pre-logical in his individual capacity no less than by virtue of the compulsion of the social *milieu*. He cannot "perceive" through the senses merely, nor judge identities by logical rules; the faculty of cognition as such is rudimentary: at the best it is held under by the collectivistic interests embodied in him as well as operative upon him.

It is held, by critics of the school, that this view overlooks important distinctions, one in particular. The fact that tradition hinders the individual savage from thinking logically by no means proves that he cannot think logically. The whole question of the relation of social meaning or tradition to individual endowment comes up. The results, socially considered, might be just what they are if human endowment, con-

sidered for itself, had not changed at all since pre-historic times. It is the social factor, the tradition, that has slowly changed, constantly allowing the logical faculty, which is always present in man, to develop more fully and express itself more adequately.[1]

Apart from the question as to what a given mind might or might not do in other and different social conditions, the essential point made by the collectivist school still holds good; the point that, as a fact, the thought of primitive man is collective, mystical, and pre-logical. The very emphasis on the social which is made in the definition of thought as collective takes the problem out of the domain of speculation as to the extent of early human endowment, and places it in that of social fact.[2]

The question of the relation of individual endowment to racial attainment gets, however, a new form of statement from the results of recent studies in social psychology.[3] For it is evident that if we take a radically collectivistic point of view, we cannot adopt the distinction with which the biologist serves himself between the factors of individuality represented by "endowment" and "environment," the latter understood in terms of the physical environment. The

[1] This point is well put by F. Boas in *The Mind of Primitive Man* (1911), who adds the consideration also, that in respect to many of our civilised interests we are still about as pre-logical and mystic in our modes of thought as the most primitive savage.

[2] A claim pressed to the point of reducing all the "normative" to the level of "descriptive" sciences; as is the substitution of a *science des mœurs* for *morale*, the derivation of logical categories from rules of social usage, etc. . . . It may be added that all evolutionists agree that the mental was at some time pre-logical in its capacity; it remains so in the animals. Whether then the logical arose in pre-human or only in pre-historic times, is a secondary matter.

[3] See the résumé given in Chapter VI of Vol. II under the heading of "Social Psychology."

biologist finds the processes contributing to endowment to end at birth, that is, when the child is physically separated from its mother; and the psychologist generally calls this the beginning of independent mental life also. But if there be factors of mental life which appear only in social conditions, as social psychologists assert, and if these conditions become effective, as they do, only after physical birth, then the mental endowment of individuality must be said to complete itself only much later. Even for biologists, physical birth is an unsatisfactory place at which to locate the beginning of "nurture," as distinguished from "nature"; for prenatal life is in many respects subject to influences from the external as well as from the uterine environment.

A purely physiological criterion in biology would have its counterpart in a purely psychical one in psychology; and this would place the mental birth, the beginning of the mental individual, defined as the social unit, at the epoch at which the individual achieves consciousness of his individuality, that is, at the rise of self-consciousness.

Putting the matter more generally, we may say that if the independent physical life is properly said to begin at physical birth, because then the formative influences necessary to physical independence cease to operate, we should say that independent psychic life begins only when there is a similar release of the mind from essentially formative social influences. Only then does the person take on his full mental character, becoming a fellow among fellows, as the body does when it becomes physically independent.[1] The person begins to know himself to be a self among selves.

[1] There seems to be in the growth of social independence no crisis similar to that of birth in the physical life. At birth part of

Whatever the exact force of this point may be, in a field in which the distinction between endowment and acquired modification is vague at the best, we may still say that the birth of the body is no point at which to locate the birth of the fully endowed mind. The mind develops in society after birth, as the body does in the mother before birth. Many of its essential organs, indeed we may say most of them—sensation being the principal exception—are absent at physical birth. They are not merely undeveloped, but as psychic organs they are absent.

This truth, I suggest, tends to justify the position of the French writers referred to above. It shows the impossibility of determining individual mental endowment apart from social conditions. The task is as futile as that of determining physical endowment apart from pre-natal conditions would be. On the contrary, we are led to the view that a collective form of mental life precedes the individual form. How the individual can think is best seen in how he actually does think in the social conditions in which he finds himself.

The presumption, then, is in favour of a theory of radical collectivism for the period of racial culture corresponding to the pre-logical period in the individual. This is established, indeed, by the facts collected by recent observers of primitive societies. It gives *raison d'être* to all those forms of illogical and irrational psychosophy by which the science of psychology was preceded, and which will always remain a thorn in its side. Socially established superstitions, occult rites,

the entire environment—the physiological part—is radically shaken off, while the physical part proper remains. The nearest thing to this, on the mental side, would seem to be the achievement of the consciousness of self, as described by the students of social psychology (see Chapter VII of Vol. II, below).

mystic appearances, religious wonders, animistic and spiritistic realities, systems of "new thought" and "Christian science"—these do not make appeal to logic or recognise the demand for objective proof. They rest in collective representation; or they are sanctioned by tradition; or they represent types of affective value; or they make appeal to emotional and gregarious habits of mind. In short, they represent and find their refuge in practical interests in behalf of which they continue to scout the claims of the theoretical.[1]

[1] The limits of space forbid any adequate consideration of the particular forms of psychosophic interpretation. Certain of them are noted below in passing—the Orphic mysteries, the belief in transmigration, the recognition of demons, etc. The subject must remain in our treatment merely preliminary to the main topic.

PART II.

EARLY UNSCIENTIFIC INTERPRETATIONS OF MIND

CHAPTER III.

The Origin and Development of Dualism—First Period of Greek Speculation, before Socrates.

PROJECTIVISM.—It is commonly recognised that the first recorded attempts to explain the world are those of the Greek schools before Socrates.[1] There were before this, of course, the mystic and spiritistic points of view of the religious cults and mysteries whose characteristics have been mentioned in the preceding chapter. Such views were, however, bound up with a social tradition and sanction of extraordinary force; they did not allow—much less did they stimulate—any sort of independent speculation on the part of individuals. The rise of speculation represented, accordingly, an enormous transition in culture, and an unheard-of dislocation of interest. Its roots are to be found, no doubt, in political and geographical conditions. In certain cases, geographical conditions favoured freedom of commerce and the rise of industrial individualism; and in some cases, political conditions favoured the rivalry and competition of social and

[1] Aristotle's account of these early thinkers, in his *De Anima*, Book I, constitutes the first history of psychology and philosophy.

religious institutions. These, together with the embarrassment that such conditions produce for the individual, worked for results of liberty and freedom in which the motives of reflective thought found a certain scope.

That this did not extend far, even in Greece, is seen in the conditions of persecution under which Anaxagoras, Protagoras, and Socrates pursued their careers at Athens. But both politically and socially there was in certain of the Greek colonies a state of things which, in contrast with earlier mystical collectivism, could be called one of relative rationalism. There arose a degree of speculative liberty, and with it came the urgency of new problems for thought. Its factors became more and more explicit, as we are to see, and culminated in the "relativism" of the Sophists and the New Academy.

The thinkers of this early period are generally classified in groups as "Ionians" and "Eleatics" (so named from their geographical origin in Ionia and Elea), "Pythagoreans," "Atomists," and "Sophists."

Later historians, however, have properly insisted upon a classification which will reflect something more important than location of birth or membership in a group. We should aim at presenting a more essential connection than that of mere locality between this thinker and that, and a more essential bond than that of mere succession between this period and that. In our view the development of the theory of the soul or self furnishes the proper clue; and in this the analogy with the development of the individual's apprehension of the self has direct application.

From this point of view, the period may be described as that of the first appearance and early development

of "dualism." It opened, indeed, with a sort of speculation which was, properly speaking, a-dualistic. The world is to the race, as it is also to the individual in the earliest stages of his development, a sort of panorama of given and unexplained changes. It is simply "projected" before the eyes, given to the senses. Its explaining principles, matter, mind, God, are not in any way isolated or differentiated from one another. But it is just its principal character that it does not remain meaningless and blank; it passes from this "projective" and a-dualistic stage into one of crude but positive dualism. In tracing this out, we reach the real significance of the movement for psychology.

Construed in accordance with this genetic principle, we find the following stages in the development of Pre-Socratic thought—

I. The "Hylozoism" of the Ionic thinkers.
II. The "Dualism" of the so-called "Early Dualists."
III. The "Corpuscular Theory" of the Atomists.
IV. The "Formal" Theories of Pythagoras and his School.
V. The Theory of the "One" of the Eleatics.
VI. The "Relativity" of The Sophists, and the transition to the "Subjectivism" of Socrates.[1]

[1] Although this method, considered as a mode of treating the entire historical movement, is new, the interpretation of the period as one of developing dualism is not new. It will be found in the work of Harms, *Die Philosophie in ihrer Geschichte*, 1. *Psychologie*, 1878 (see especially p. 112, and in detail, pp. 118 ff.). In the recent *Geschichte der Psychologie* of O. Klemm, 1911, the antithesis between earlier dualistic and later monistic views is made the characteristic of the "metaphysical" psychology of the period (*loc. cit.*, pp. 12 ff.). Accordingly, it will be plain that the exposition of the movement as one of growing dualism is not due to our special rule of interpretation, although it is clearly in accord with it.

I. *Ionian Hylozoism.*[1]—The Ionian philosophers sought for some single principle by which to explain the world. By *Thales* and *Anaximenes* (in the sixth century B.C.), *Diogenes* of Apollonia (who wrote about 424 B.C.), and *Heracleitus* (about 500 B.C.), "water," "air," and "fire" were in turn taken as the principles of explanation. To Diogenes the soul was warm air; to Heracleitus it was fire. Through the breath, it partakes of the eternal living fire, which is the basis of all things. Heracleitus is called the "flux" philosopher, from his insistence on change and transformation, taking place, as he said, through the identity of being, considered as fire, through all its opposites.

In common they recognised movement, change, and development, and sought to account for it by some primal principle. This led to the theory of "hylozoism," according to which all the world of reality is endowed with life, and the living or self-moving thing is the seat of the soul.

Accordingly, we find, on the side of their theories with which we have to do, a common emphasis laid upon life. Life is the basis of all movement, change, evolution. Living beings have souls, and all things have life. The mental or conscious principle is not separated from matter: matter or hylé (ὕλη) is always life or zoön (ζῶον); hence the term "hylozoism."

[1] It should be distinctly understood that in treating of this and of all the other "isms" of our account, it is not the history of philosophy but that of psychology, with which we are concerned. It is only the psychological bearings of a theory that we are to bring out. For the Greek philosophy as such, authoritative histories should be consulted such as Zeller, *History of Greek Philosophy*, and Gomperz, *The Greek Thinkers* (both in English translation). See also the little book of A. W. Benn, *History of Ancient Philosophy* (1912), in this series. Mr. Benn's larger work is *The Greek Philosophers* (1882).

This view represents a first step toward an interpretation which makes some note of the group of changes and processes by which living and conscious beings are characterised. It is, therefore, properly described by the term hylozoism. On the other hand, so far as distinctions of living from not-living, and mind from life, are concerned, the result is quite negative. It is consequently possible to say that it represents the "projective" stage in the development of dualism;[1] it is not subjective, nor is it objective. Life is a sort of first thing, a crude general term within which more positive meanings are later on to be differentiated. It is the first step toward a more individual and reflective point of view—similar to that taken by the child—leading away from the social or collective zoömorphism of racial interpretation. But it retains the essentially zoömorphic content, for which hylozoism is only another name.

II. *The Early Dualists.*—Within the same school, a group of men went further and worked out a series of views to which the term dualism has been very properly applied by the historians of the period. The great names to be mentioned are those of *Anaximander* (*cir.* 566 B.C.), *Empedocles* (455 B.C.), and *Anaxagoras* (500–428 B.C.). Each of these thinkers pointed out contrasted or opposing principles in the world. Anaximander postulated the "unlimited" or "infinite" (τὸ ἄπειρον) as a positive something over against the limited elements of things. To Empedocles "love and hate" were the principles of opposition—an anthropomorphic rendering of attraction and repulsion. Finally,

[1] Cf. Chapter VII of Vol. II on the "projective" stage in the individual.

Anaxagoras gave the name spirit (νοῦς) to the vital or formative principle, contrasting it with matter.

Not only in these general principles of opposition, which in a sense did what the one principle of life had been called on to do, do these thinkers differ from the hylozoists; but also in their views as to the concrete matter of the world. They recognise in nature certain qualitatively different elements whose composition, under the action of general principles, produces things. The qualitative elements for Anaximander are the "warm" and the "cold," the "dry" and the "wet." Empedocles postulated four different elements: fire, water, air, and earth. But fire and air are the warm and the cold over again, and water and earth are the wet and the dry. These elements are undecomposable although composite. They also fill space; there is no such thing as the "empty." Anaxagoras also explains all the phenomena of nature in terms of the union and separation of qualitative elements. Man according to Anaximander was evolved from aquatic animals.

The philosophy of these thinkers, thus briefly described, leads to a new stage of the dualism which the science of psychology presupposes; and this in two ways.

In the first place, the postulation of natural qualitative elements serves to solidify the external or objective pole of the growing distinction between the soul and the outer world. It is a step toward naturalism—toward a causal explanation of change in nature. It is a clarification of the mystic and vitalistic explanations of the hylozoists, tending to express itself in dualism.

In the second place, this reacts to produce a similar clarification or definition on the side of the self, the

subjective term or pole. If the more objective is in a measure divorced from the less objective, the external from the internal, this will result in a further statement on both sides. Accordingly, we find not only the recognition of the elements as external and distinct from one another, but with this that of the general principle of movement or change by which the combination and dissolution of the elements is accomplished. And it is here—in Empedocles, and more explicitly in Anaxagoras—that the further phase of dualism asserts itself. This principle is "spirit," reason, *νοῦς*.

The origin of this opposition and its further development are of great interest from the point of view of the analogy between the racial and individual processes. The child is led by the stress of life, by the need of adaptation, to the recognition of a certain stability, lawfulness, and uniformity in the external world. This uniformity conditions and controls his thought and action. And it is by this movement toward the definition of the objective that the contrasting phase of experience, the inner quasi-subjective phase, is clarified in turn. The moving principle behind the regularity and uniformity of things, the *raison d'être* of ordered change, is something that is to shape itself as the self or soul.

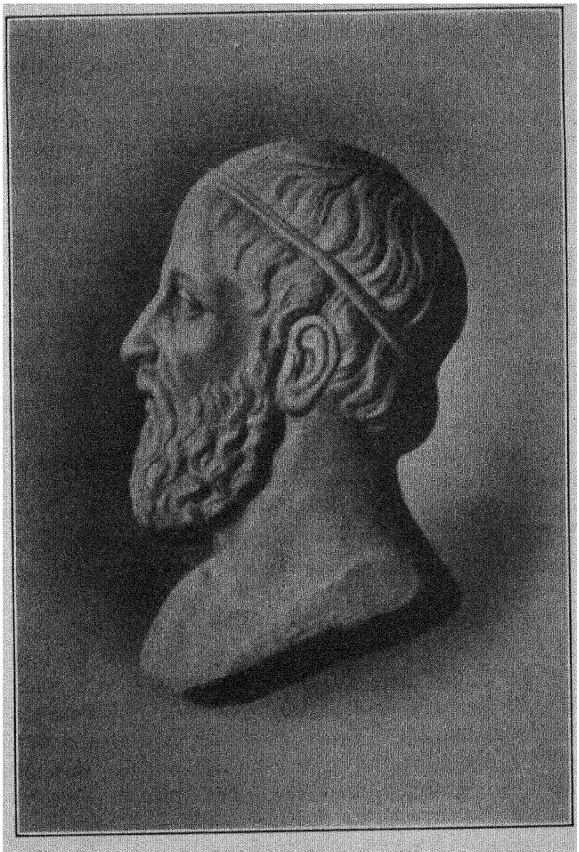
This we see reproduced here in the development of reflection. It is the further working out of a motive present in the mystic interpretation of primitive peoples. Animism and mystic participation are readings, by a sort of social projection, of a crude soul-life into the changes of nature. Here we see its counterpart in early reflection. The world of things is exhausted in the combination and dissolution of elements; how is this combination and dissolution to

be accounted for? By the second and less definite principle which the dawning world-dualism implies—the soul.

It has been very commonly said that in this dualism, which gives explicit recognition to the principle of "spirit" or νοῦς, over against matter or ὕλη, Anaxagoras anticipated a full dualism, even that of Descartes. This is, however, a grave mistake. The facts, no less than the interpretation they should bear, dispute this. We cannot here anticipate more than the general significance of the Cartesian dualism; but that will suffice. Descartes reached the thought of the actual separateness of two substances, mind and body, having disparate characters, thought and extension, and incapable of direct interaction between themselves. The contrast to this afforded by the theory of Anaxagoras is instructive. Instead of two substances, having specific characters, this thinker makes mind the basal principle of order and unity *in the material* no less than in the spiritual world—a conception developed by the Pythagoreans. Instead of separation and non-interaction, he postulates immanence and union. The problem for Anaxagoras is, what is the one principle of all nature? That of Cartesianism is, how can the appearance of interaction between mind and body, in particular cases, be accounted for, despite their absolute separation? The philosophy of the Greeks worked out the separation of mind and body; that of modern times seeks to bring them together again.[1]

More positively stated, the dualism reached by

[1] The same difference exists between the substantive form of dualism of later Christian theology and that of the mystic spiritualism of Alexandria. Modern theology is embarrassed by the contradiction involved in the resurrection of the body; but the Apostle Paul could say without feeling the contradiction, "it will rise a *spiritual body*."



PYTHAGORAS.

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Empedocles and Anaxagoras may be described as an important step toward subjectivism. It did not, however, reach the full subjective point of view, seeing that the positive determination reached was on the side of the objective, the external in nature; where the elements were qualitatively determined and the underlying principle was that of space.[1] The inner or mental principle remained largely negative: a sort of speculative resort, or at best a refinement on matter. The subjective as a conscious life was not yet defined.

This appears in the fact that the two great problems which exercised the Greek mind subsequently to this were not strictly those of dualism. We find the problem of "the one and the many" growing constantly more exacting and imperative. It was solved by the theories of the Atomists and Pythagoreans. The other problem—connected with the former—was that of the unreliability of the senses worked out in turn by the Eleatics and Sophists.

The special doctrines of this group of thinkers were varied and interesting; we have space only to mention certain of them.

The evolution of the world, including man, is described as a single and continuous process. It is due, according to Empedocles, to the action of love and hate. Man is the latest and highest product of this development; his immediate cause, according to Anaximander, is the action of the sun upon the earth working through lower forms of life, from the fishes upward. According to Empedocles, the plants are still earlier forms of life, produced by the action of love which overcomes the disorganising forces of hate.[2]

[1] Like the "thought" of Parmenides, the "nous" of Anaxagoras was made one with empty space.

[2] The organs were separately formed and were brought to-

Empedocles also held to a theory of "transmigration" of souls. A series of bodily forms is imposed upon the soul by the action of hate. It is the function of love to free the soul from its bondage to this wandering life, and restore it to its divine place.

Perception to Empedocles was due to the action upon the senses of emanations from things. He attributed perception to plants. Truth was secured through sense-perception in accordance with the principle that "like acts only upon like." We can know things because we, like things, are composed of material elements organised by love and hate.

In Anaxagoras, the principle of spirit, or νοῦς, already spoken of, takes the place of the love and hate of Empedocles. As opposed to the elements of things (called by Aristotle "seeds," ὁμοιομέρη) which are material, the soul is simple, identical, unmixed. It brings movement, order, and form into the mixed materials. It is, moreover, the principle of reason, from which the ends found in nature proceed, acting in opposition to accident and blind necessity. It is also active, not merely intelligent; it is the moving, working principle, seen not in the living person only but in all nature. In Anaxagoras, too, the concept of evolution becomes more clear, as a process of real advance, of historical creation, rather than one of mere distribution and redistribution of elements.[1]

gether in many combinations by the action of love; from which those best adapted survived. Thus he hit upon the idea of natural selection.

[1] Anaxagoras is criticised, however, by Socrates (in Plato's report in the *Phaedo*, 96 ff.) for omitting finality, *i. e.*, the end which is the "good," from his account. It is true that the soul-doctrine of Anaxagoras lapses into physics, instead of leading on to ethics.

The single soul is the form taken by spirit in a given body of material elements. The plants have "dark" or immature reason, endowed with sensation, desire, etc. Truth is reached by reason working upon opposition and distinction; it is not attainable by the senses alone.

Summing up the position of dualism among these thinkers, we may quote Mr. A. W. Benn: "Anaximander could regard the heavenly bodies as blessed Gods, Xenophanes could ascribe omnipotence and omniscience to the material world. Empedocles could represent love and strife as elementary bodies"—all this in explaining how "pure reason could have been identified with pure space" by Parminides and Anaxagoras (A. W. Benn, *Ancient Philos.*, p. 33).

III. *The Greek Atomists and the Corpuscular Theory.*—In *Leucippus* (*cir.* 480 B.C.) and *Democritus* (460-361 B.C.), the leading Atomists, the definition of the objective pole of the mind-matter dualism was carried forward. It reached such a positive statement in the direction of naturalism and mechanism that the theory, especially as presented by Democritus, is usually called "materialism." It advanced the concept of the soul, however, only negatively; and for this reason its psychological interest is small.[1]

To these thinkers, the elements of the world were atoms or corpuscles, varying in figure and size, but without differences of quality. These atoms have, for Democritus, a necessary downward movement: they fall in empty space (Leucippus), faster or slower according to their size, the larger being heavier. By these atoms, thus set in movement, nuclei of matter are

[1] The classical treatment is that of Lange, *History of Materialism.*

formed, aggregates assembled, and the world of things produced.[1] Bodies are aggregates of corpuscles.

The soul is such an aggregate. It is composed of round, smooth, warm, fire-like atoms. The physical body is also an aggregate of atoms warmed into life by the soul, which departs at death leaving the body inanimate.

Perception takes place by means of little images (εἴδωλα) which pass to the soul through the senses. But perception is imperfect and often deceptive. The qualitative aspects of the world are due to illusion of the senses, since only quantitative differences exist. Impulse and will, the active life, reveal the reverse process—the pouring-out of the images taken-in by perception.

The air is peopled by demons, as the popular theosophy declared, agreed Democritus; they are human-shaped images, capable of speaking, and having knowledge of human affairs.

As intimated above, these thinkers represent a departure of importance in a certain direction. They freed speculation about the external world from the intrusion of occult and vitalistic elements. They banished the moving principles—love, hate, reason—of Empedocles and Anaxagoras, substituting a falling movement, which is, of course, so far as falling is concerned, a movement without a cause. But for such a movement there must be a void, an empty space. This thought is a notable achievement in physical science; but it denies the existence, and obscures the properties, of qualitative phenomena and with them those of the

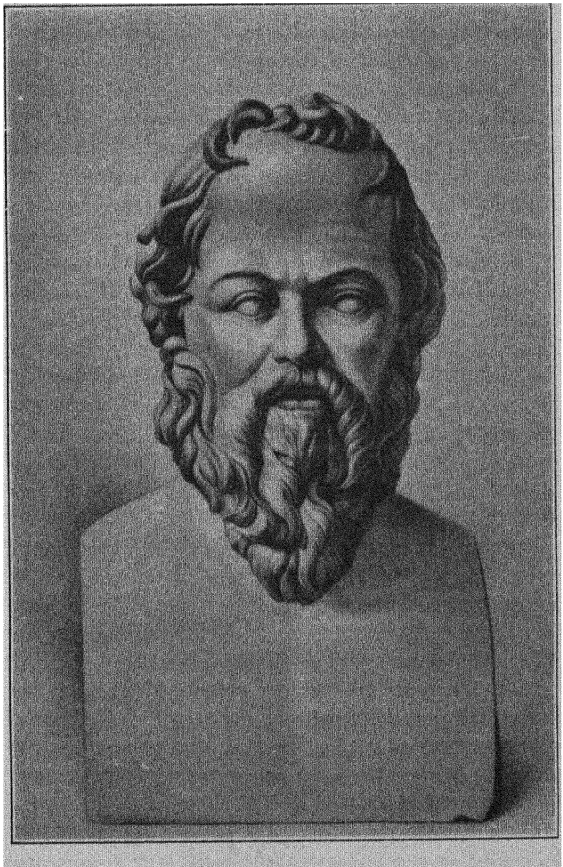
[1] This is the usual account. According to Benn (*Hist. of Ancient Philosophy*, p. 133 f.) it was only in the later atomism of Epicurus that "weight" and a "downward" direction of motion were attributed to the atoms; Democritus' atoms flew at random.

soul. It may be called an advance for psychology, therefore, only in the negative sense that it makes it easier for subsequent thought to characterise subjective phenomena as such, in so much as the external and mechanical is more sharply defined.

We cannot, properly speaking, call their view materialism. For this would be to suppose an opposition between their view and some sort of conscious spiritualism: to presuppose, that is, the dualism between mind and matter. On the contrary, the supposition that the soul is made up of smooth round atoms is only another of the attempts to account for it as part of the world, composed of the same stuff as the world in general. In this, it is in agreement with preceding theories, which had also failed to isolate the mental or conscious as such.

The conception of Nature (φύσις) is advanced in the direction of an objective and mechanical world-order. The antithesis between nature and man, as it took form in the Sophists, is thus prepared for.

IV. *Pythagoras* (after 600 B.C.) *and the Pythagoreans.*—As multiplicity and disorder were emphasised by the Atomists, so in the Pythagorean school we find emphasis placed on the notions of unity and order. The atoms of Democritus are, as we saw, left without any ordering, arranging, or developing principle; they fall, and that is all. In Pythagoras, there is a return to the Ionic thought of a principle—love, hate, spirit, etc.—that stands for unity and order, behind or within the multiplicity of nature; this thought was given a very remarkable illustration in the Pythagorean theory. For Pythagoras, nature obeys and reflects the laws of "number." Every phase of phenomenal change may



SOCRATES.

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be supposed to follow a numerical order. As we should say to-day, every thing allows of "numerical expression"—a mathematical conception of the world. The world becomes an ordered cosmos; its unity is seen in its numerical relations. Plurality is disorder; a rebellion against the order and unity of a numerical system. The essence of things consists in the numbers which express them; the numbers, therefore, are themselves essences. The Pythagoreans did not find this inconsistent with the recognition with the "early dualists" of opposites or antitheses in nature of which they made a list—one and many, rest and motion, etc.

The soul is the numerical harmony of the body, as the world-soul from which it arises is the harmony of the cosmos. Universal life is governed by number in four stages: (1) it is latent in seeds; (2) it appears in plants; (3) it becomes the "sensitive" soul in animals (located in the heart); and (4) the rational soul in man (located in the head).

The soul has three parts: reason (*φρένες*), intelligence (*νοῦς*), and desire (*θυμός*). The first of these, the reason, is peculiar to man; animals have the other two. This is an early attempt at classifying mental powers or faculties; but it goes no further than this.

With the point of view of order and harmony we find united a development of the Orphic [1] doctrine of transmigration of souls. Souls go from one body to another, being in this sense separate existences. Demons are disembodied spirits.

There is an apparent contradiction between this doctrine and the view that the soul is the numerical harmony of a particular body. It is probable that in

[1] The name of Orpheus, the legendary founder of a mystical sect, became attached to this type of world-theory.

the Pythagorean circle—a secret religious organisation—the theory of transmigration was the accepted view, answering to ethical and practical demands and maintaining the Orphic tradition.

The need of carrying out further the conception of order and harmony in a comprehensive philosophy, and of ridding it of contradictions, appeared later in the theory of "ideas" of Plato, for which the foundation is here in a sense laid. The development of a formal and unifying principle—that of number—suggests the corresponding rôle of thought or the "idea"; but it is only by vague hints that this is intimated. In the general tendency, however, away from the purely objective and pluralistic view of things to one in which the apprehension of unity and order is made prominent, and which is in some way connected with the soul, an advance toward subjectivism is to be recognised.

V. *The Eleatics.*—In the philosophers of Elea—*Xenophanes*[1] (*cir.* 540 B.C.), *Parmenides* (*cir.* 490 B.C.), *Zeno*[2] and *Melissus* of Samos (both *cir.* 450 B.C.)—a further movement of thought shows itself. In them, two antitheses were clearly presented which had been foreshadowed in earlier speculation: that of "the one and the many," and that of "being and becoming." These, together with the Aristotelian problem of "matter and form," remained the critical questions of Greek interest.

So far as the problem of psychology is concerned, the definition of the mental principle, both of these antitheses have significance. Claiming that the absolute principle of things is one and not many, the

[1] Xenophanes was the first Greek philosopher to write in verse.
[2] Known as "Zeno the Eleatic," in distinction from the more famous "Zeno the Stoic."

Eleatics explain the multiplicity of things as "appearance" only, due to the deception of the senses. To Xenophanes, earth is the one original element. It is of infinite extension: and it is at the same time God, all-wise and all-powerful. As this principle was held to be one of fixed being, not one of change and becoming, such an interpretation of sense perception was reinforced. For Parmenides the "one"—to Melissus, infinite—was finite but eternal and at rest; it was pure space, which, like the "earth" of Xenophanes, was also reason and God.

The Eleatics developed both these positions. The world-principle is one; not many, as the Atomists taught. It is also fixed, perfect, changeless; not in development, as the Ionics believed. The two other schools were alike led astray by the appearance of things—an appearance due to illusion of the senses.

In this the force of the Eleatic philosophy for psychology shows itself. It brings to the fore the problem of perception and makes an explicit criticism of knowledge necessary for further theory. Without such a criticism the three alternatives of thought—Ionic, Atomistic, and Eleatic—might be reiterated again and again without end.

But the problem of perception or knowledge is one of the inner or subjective life; and in bringing it forward the Eleatic philosophers took a step toward the definition of the subjective point of view as such, represented later on by Socrates. Parmenides, although identifying soul and body in the "one," still attributed to the "one" something like consciousness.

Their theory was also in line with the doctrine of unity and order of Pythagoras, which also denied absolute multiplicity. But it sought this unity in the abso-

lute ground of things or in God, as the Ionics had done before them; not, as Pythagoras had done, in a property of the world itself.

The potential dualism of spirit and matter disappears in the theory of Xenophanes and Parmenides as to the nature of God. God is both a sphere, supporting the world of material things, and also a spirit: the "perfect" in extension and in thought, the "All in One" (ἓν καὶ πᾶν). In this speculative "identity philosophy," we are reminded of the pantheism of Spinoza, which followed upon the dualism of Descartes, much as the pantheism of the Eleatics follows upon the similar but less well-defined dualism of the Pythagoreans. They both show the resort of the imagination to a single monistic principle.

The world of change and becoming is appearance, illusion, *Schein;* this Zeno demonstrates by showing the absurdities contained in the conception of motion. His famous proof that Achilles could not overtake the tortoise—because whatever the fraction of the distance traversed by Achilles, the tortoise would also have gone forward a distance in the same time—remains a classical piece of logic. Specifically the world, and with it man, is a mixture of "light and darkness": a position which shows how undeveloped the dualism of mind and matter still remains. Both together are the outcome of the one fundamental refined physical principle. "Light and dark" was about the only antithesis of a general sort in nature that had not already been invoked!

A sharp distinction was made, however, between reason and sense. As perception is illusory, change and becoming are not real but only apparent; but as reason is the organ of truth, unity and being are abso-

lutely disclosed by it. The reason grasps the being of things and establishes, for Parmenides, the identity of thought and its object, that of reason and extension.

VI. *The Sophists.*—In the group of men called Sophists, or "wise men,"[1] the decay of speculation followed from its own general tendencies. The Sophistic period is one of denial and lack of confidence. This showed itself in a temper of mind to which certain of the implications of earlier thought were congenial.

First, the doctrine that the senses deceive, stated by the Atomists and Eleatics in a form that made all perception a mirage and motion impossible, was carried out by the Sophists in the theory called in later speculation that of the "relativity of sense qualities." All external reality or truth is relative to the observer, who apprehends the world through the medium of the senses; there is no reliable general knowledge of nature secured by perception. Justice and morals cannot be founded on a supposed objective order of nature.

But this is not all. Why, ask the Sophists, is reason any better? What right have the Eleatics to say that the absolute can be reached by reason? This, too, is vain; there is no way to reach any independent truth, either sensible or rational; all rests upon the experience and nature of man.

Hence the positive position to which these negations brought certain of the Sophists—the only resort is that which appears to the man, his fleeting and circumscribed experience. *Homo mensura omnium:* "man is the measure of all things." This is the motto of Pro-

[1] They were a class of travelling teachers who took money payment. They prepared wealthy young men for careers requiring skill in disputation and rhetoric.

tagoras (480–411 B.C.), and Gorgias (427 B.C.),[1] the latter the dialectician who argued that there is nothing, and, besides, we could not know it if there were, and we could not communicate it if we knew it.

The Sophistic period is one of clearing up or stock-taking. It represents the bankruptcy of the old ways of thinking. The mind finds itself embarrassed by the futilities of partial and unsuccessful systems. Its meaning for psychology, however, is not at all negative; it is very positive.

The retreat of thought into the man himself, into his circumscribed consciousness, into the empirical life, is in itself a new point of view, and the beginning of a new method. Give up, say the Sophists, the mere "say so" of dogmatic assertion, the mere preference for this system or that, and be content with what you find within you.

To be sure, the Sophists did not themselves apply such a method or develop the new point of view. They were in a true sense sceptics; the satirists of the old, not the prophets of the new. But nevertheless they indicated the platform—cleared of its broken furniture —from which the prophets of the subjective were to speak, Socrates first of all.

The Sophistic stand is, for the development of racial interpretation, what the dawn of the subjective era is for that of the thinking individual. The mind is, in a sense, thrown back upon itself through the ineffectiveness of its first efforts to understand things. It finds in itself a mass of material of first-hand immediate quality, a mass of affective and active data: feelings, efforts, the contents of the practical life. All this

[1] Their contemporaries, Hippias and Prodicus, held a more conservative position as to the value of objective knowledge.

remains a direct possession, after the objective illusions and appearances of sense and reason are discounted. The "subjective" becomes a sphere of reference, a resort having its own characters, sanctions, and modes of being; it is a term that stands in opposition to the other term, the external and foreign, of whatever sort. The dualism of "subjective and objective" is preparing itself.

In our opinion, this is the significance of the Sophistic reaction: it came up to the verge of the subjective. It shows its value fully in the Socratic schools, subsequent to Socrates, in which various tendencies of thought were held together by this one common intuition of the subjective. We are to see its positive characters in our exposition of the views of Socrates himself. It is the mother-thought of all the idealisms, empirical no less than rational, of the history of philosophy.[1]

The Sophistic situation reminds us forcibly of the condition of embarrassment in which the growing individual finds himself, as he confronts the puzzle of

[1] Certain recent writers on the history of psychology have seemed singularly blind to this or neglectful of it, although it has been given full recognition by various historians of philosophy. For example, Klemm (*Geschichte der Psychologie*) is led by his plan of treating only of positive theories, to overlook the Sophists—no doubt because they represented no positive "ism," but merely a point of view. Similarly, Dessoir (*Abriss einer Geschichte der Psychologie*) passes from the so-called *Seelenbiologie*, of the early Greek schools, direct to Plato, omitting Socrates as well as the Sophists altogether, to the extreme disadvantage of his treatment of Plato, Aristotle, and the Stoics. This is incomprehensible, even from the simple point of view of the history of ideas. Harms is much nearer the truth (*Geschichte der Psychologie*), although still too negative. The analogy with the progress of individual thought reinforces the traditional interpretation, which finds in Socrates the transition—by way of the Sophistic reaction—to subjectivism and practical idealism: to all that body of doctrine which the subjective point of view underlies.

his own body. On the one hand, the "self" is the body, its principle of organisation and manner of existence are primarily those of external things. But, on the other hand, the personal "self" has the characters of an inner world—the practical, active, characters by which it dominates the body and works effects through it. Like that of the Sophists, the thought of the individual at the corresponding stage of reflection, shows the germs at once of practical idealism and of theoretical positivism. The division into parties shows the two motives actually present in the school, the extreme "humanist" and the more "naturalistic."

It is clear that the significance of the entire pre-Socratic movement resides in this: it furnished, unconsciously or spontaneously, the dualistic basis upon which the alternatives of later reflection were founded. The "projective" is passing into the "subjective" point of view. The distinction between subjectivism and objectivism, idealism and naturalism, could receive its first and world-famed presentation in Plato and Aristotle, when once Socrates had shown the meaning of the subjective.

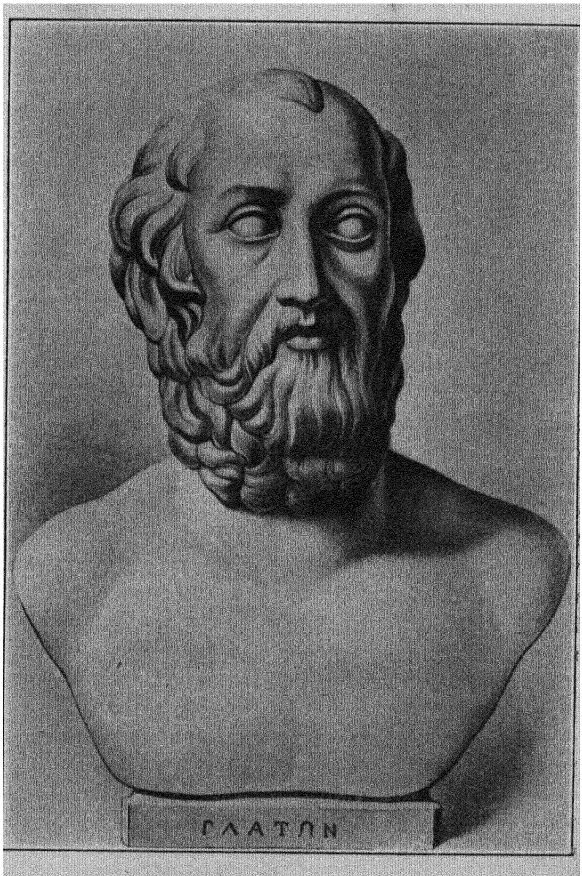
CHAPTER IV.

Greek Speculation, Second Period: Subjectivism.

Socrates, Plato, and the Minor Socratic Schools.—The significance of "subjectivism" in racial and individual thought alike is this: it isolates the contents of the mind itself from their external references and discloses the possible interpretations that may be placed upon them. To say that the senses deceive, is to say that the interpretation put upon sensation is incorrect or false. To say that knowledge is relative, is to say that our percepts, images, etc., are capable on occasion of varying interpretations. To say that reason is ineffective, is to say that the beliefs, presuppositions, and processes which are its tools are insufficient. All these misinterpretations turn upon the fact that consciousness possesses data which are taken to be subjective.

To take the subjective point of view is simply to recognise this in some measure; to acknowledge that we must deal first of all with what is in the mind, with percepts, images, hypotheses, etc., "made up" in consciousness; in short, with "ideas." It recognises that ideas intervene in some sense between the perceiver and the thing perceived; that ideas are the mediating or instrumental term in knowledge.

I. *Socrates* (469–399 B.C.).—The Sophists denied in effect the possibility of passing beyond ideas. To them the interpretations made by the preceding philosophers



PLATO.

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were all alike false; all that was left for knowledge was the body of ideas itself. Man, the possessor of ideas, was "the measure of all things."

Now in the teaching of Socrates, we find a new sort of interpretation of ideas suggested. Recognising the subjective point of view of the Sophists, Socrates built positively upon it in two different directions, which we may call without violence the "social direction" and the "ethical direction."

First, Socrates opposed the Sophists' individualistic way of employing subjectivism. He attempted, by his celebrated questioning method (as seen in Plato's dialogue, *Protagoras*), to bring them to admit a general form of knowledge, a commonly received definition of a thing, which was more reliable and true than mere individual opinion (δόξα). The criterion of truth thus comes to be found in collective or common acceptance; truth and knowledge are social. It is man in the sense of "humanity," not man the individual, in which the true subjective point of view resides. In this position, the foundation was laid for the theory of general and universal knowledge,[1] which was to be developed by Plato, Aristotle, and the Stoics. Socrates said, as Plato reports, that the only thing he knew—being in this wiser than other men, as the Oracle had declared—was that he knew nothing. This is, however, to know something of the meaning, limitations, and value of knowledge itself.

Second, Socrates connected truth with virtue, knowledge with duty. He said that virtue depended upon knowledge in the sense that with adequate knowledge,

[1] This interpretation of Socrates follows that of Zeller, *The Philosophy of the Greeks*. Cf. also Boutroux, "Socrates" in *Historical Studies in Philosophy*, Eng. trans. (1912).

or insight into the results of action—called by him "wisdom" (σοφία)—one would never do wrong. This makes action, conduct, depend upon ideas, just as truth does; and carries the subjective point of view into the domain of practice. After this, mere external authority, social constraint, religious sanction, cannot replace the inner light of knowledge.

If all we have is a body of ideas, still this very point of view has results; for it is then our ideas that stand for things, and it is our ideas that guide our actions. Two processes of mediation play through ideas: ideas are the means of attaining both sorts of ends, ends of truth and ends of virtue.[1] In Socrates, the emphasis falls upon the latter sort of mediation, the practical. He establishes the eternal right of virtue; and makes ideas, in the forms of knowledge and truth, means to the ends of practical life.[2]

In this departure, the dualism whose history we are tracing, in the history of theories of the self, takes on a new and valuable phase. It becomes the dualism between the "subjective" and the "external"; between the mind, as a subjective principle and the seat of ideas, and the world of things and of practical interest and values.[3] In Socrates, this dualism appears in the

[1] In the author's work, *Thought and Things, or Genetic Logic*, Vol. III, "Interest and Art," it is shown that individual thought and action always proceed by this twofold process of mediation. Cf. also below, Chap. VII, *ad fin.*

[2] This point is made the capital one by Harms, *loc. cit.*, who expounds Socrates' psychology under the heading "Ethical Determinism."

[3] It has not yet become a dualism between "subject and object" as such, in which both terms are set up consciously in experience itself, or within the self. This is achieved only later on, when thought becomes reflective. But it affords the foundation for it, by supplying once for all the refutation of pure externalism either as materialism of nature or as legalism of morals.

immature form that it takes on at first also in the individual: it recognises the fallibility of individual perception and personal opinion, and seeks a method of converting the individual's ideas into socially confirmed and general knowledge. It thus saves itself from the pitfalls of sophistic relativity. And again it asserts the correspondence and interdependence of knowledge and virtue, with the result of securing the stability of practical interests and values. The child likewise learns to judge for himself, but according to an enlightened social conscience, which comes to replace the *ipse dixit* of an external authority.

The external term is not a purely objective and neutral system of controlling conditions over against the individual; on the contrary, it is the embodiment of practical values[1] over against the social body which is bent on pursuing these values as ends. This is the meaning of the external also to the child, before his prying curiosity develops into consistent reflection. The world is something to conquer and enjoy, and something to conform to, rather than something to understand; and the "self" is a body of collective social interests, rather than a personal being of mere desire, individual personal caprice, and private opinion.

The result is that, in the school of Socrates, Physics, or the science of objective nature (φύσις of the pre-Socratics), gives place to Logic and Ethics, pursued by the dialectical method. The gain coming from the human point of view is far from being lost: it is now made positive and lasting.

[1] Socrates explicitly added to the intelligent moving principle of Anaxagoras, the idea of "final cause": the intelligence works for the good. See Fouillée, *La Philosophie de Socrate*, Vol. I, p. 25.

It is thus that the famous motto of the Socratic school, "know thyself" (*γνῶθι σεαυτόν*) is to be understood. It is an exhortation to examine man—the social, active, virtuous man—and understand his place in the network of external things and social interests. By such knowledge is virtue advanced; for virtue is taught and learned with the teaching and learning of truth. Freedom is found in intelligent action.

The principal ambiguity that remains—one that reappears in the system of Plato—attaches to the relation of truth to practice, what is known as the "Socratic paradox." Socrates, as we have seen, made the "good" the absolute end, and knowledge the means to it. But the relation thus barely stated may be understood quite differently. It may be taken to mean that virtue is contingent upon knowledge; that the truth of ideas must be established before virtue can be reached or the good conceived.[1] Such a turn would give supremacy to the reason, and lead on to systematic intellectualism in the theory of morals.[2] The empirical question involved—that of the relation between cog-

[1] It is the virtue (*εὐπράξία*) that is founded on knowledge or wisdom that is "teachable," not the virtue (*εὐτυχία*), which rests on mere opinion.

[2] Of course, Socrates could not foresee the use later speculation was to make of his intuitions. And it is worth saying, though it is not new, that the "Socrates" of Plato's *Dialogues* (the *Menon* especially) is, in this matter as in others, a Platonic Socrates. However well intended by the author, we must suppose Socrates' opinions to have been developed somewhat in the direction of Plato's. On the matter before us, the following is the decision of Fouillée: "Socrates was not exclusively moralist, as the reading of Xenophon would lead us to believe, nor as much of a metaphysician as Plato represents him. His proper point of view is that of the unity of ethics and metaphysics in the notion, at once practical and speculative, *of final cause*" (Fouillée, *loc. cit.*, Vol. I, p. 34). In his opinion also Socrates is an ethical determinist, assuming that he discarded free-will (a question, however, which he did not discuss).

nition and will—is one of modern psychology. Its answer in later thought will concern us further on.

Although put to death for "impiety," Socrates held to the existence of a supreme God. His belief in the spirits of the earlier theogonies is attested by his claim that he himself was guided by the prohibitions and restraint of a "demon" which, however, never guided him positively.

II. *Plato.*—In the philosophy of Plato (427–347 B.C.), the factors of earlier thought have explicit development. We will indicate only those aspects which bear upon the problem of psychology.

Plato's thought centres in the celebrated "theory of ideas." Its meaning in brief is that ideas or concepts are not merely subjective states of mind, but absolute realities existing in themselves. Every actual thing in nature has its absolute prototype or model in "idea." What degree of reality things have comes only from the presence of this prototype, of which the thing is a mere "shadow." The ideas constitute a hierarchy or ascending series, the supreme idea being God or the Good. The idea of the Good must be the highest idea, and it must be divine.

In this theory there is a further advance in the direction of the Socratic teaching. The starting-point is the idea, but it is now not only not an individual state, but also not merely a subjective thing; its meaning is what is important, its existence as reality *per se*. This is the beginning of a typical form of rationalism, one that considers the mediating term, the idea, not as the instrument of knowledge, but as itself revealing the real. A further thing—a second real something—reached through the idea, is given up: such apparent

ST. AUGUSTINE.

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realities are mere shadows, reflections, pseudo-ideas. In the intuition of the idea, the absolute itself is directly apprehended.

By this step, the dualism of the earlier philosophy is carried forward and enriched. The "spirit" of Anaxagoras and the formal "number" of Pythagoras are given the quality of the idea. The absolute is enriched by the gain accruing from the Socratic subjectivism; it becomes a rational principle. Furthermore, its highest embodiment in the idea of God makes it, in the final interpretation, something spiritual.

Again the ethical significance of the Socratic point of view is not lost in the rationalism of Plato. To Socrates, all things exist for the sake of the Good; ideas are means of attaining virtue; all cause in nature is final cause, a process working to a desirable end. Plato is true to his master here; and in his doctrine of ideas he justifies the thought by a metaphysics. Instead of being a mere belief, a pious hope, the absolute Good is really present in the supreme idea. The rational principle culminates in God, the supreme reason, and the ethical principle in the Good, the supreme end. These two are one: the idea of the Good is God.

The process of mediation involved in the Socratic method—the mediation of ends or "goods" by concepts—is therefore not superseded in the Platonic process of mediation of realities by ideas. Both are recognised in their culmination, in the final synthesis of God and the Good. In this the motives of individual thought are again exhibited in their integrity. The individual finds that truth is reached through ideas, and also that ideas lead to satisfactions; both processes of mediation hold good. He does not find it necessary

to deny one of them in making use of the other. It is only when his further reflection leads him to inquire into it, that he finds that he himself, following social leading, has already united the two results in a further synthesis and embodiment in personal form. Father, priest, God, each may become in turn the being in whom knowledge and goodness are alike and together realised. The hero is at once the wise man and the good man; God is the great Hero, the eternal Good. We are all naturally to this degree Platonic in our definition of God.

In this result, too, the "ejective" process in the growth of reflection, individual and racial alike, reaches its full statement. The rational-ethical postulate of God, in Plato, follows upon the animistic and anthropomorphic postulates of early religious mysticism. It secures deliberately, in terms of reflection, what the earlier movements secured spontaneously, in terms of ejection: the presence of personality in the divine nature.

Psychologically, this is of great interest, because it shows us the gradual freeing of the hidden motives of dualistic thought. Both the processes of mediation, each working through ideas, set the inner life over against the outer; the world of reason, order, and the good, over against that of appearance, plurality, disorder, and imperfection. So far we have dwelt upon Plato's theory as it affects the first of the opposed terms of the dualism; we will now look at his treatment of the second.

In the human person, according to Plato, reason or the idea is involved in matter, or the body, through the presence of the soul. The soul as common principle partakes of the nature of both. It has an im-

mortal or rational part, coming from God; and also a mortal part (*ἐπιθυμητικόν*), the seat of appetite and sensation, belonging to the body. Lying between these and making their interaction possible, there is a third part (*θυμός*), by means of which reason conquers desire. Plants have the lowest part; animals the two lower, but not reason, which is exclusively human. In man, the head, breast, and abdomen are the respective seats of the three.

The rational soul pre-existed and also survives the body. It is immortal, gradually freeing itself from its non-rational parts through transmigration into new lives separated from one another by periods—each of a thousand years—of the penalties of purgatory.[1] Nature shows an upward progress, whose end is represented by man (but not by woman!), since in man the rationality is achieved in which the absolute good is freed from the corruptions of matter. Matter (*ὕλη*) is not a positive substantial principle, but one of limitation and confinement. It is the "matrix," the "nurse," the "mother," of the generation of reason. The world as a whole is a living being (*ζῶον*) of whose life living organisms partake. The world-soul takes form in individual souls. In all this, we see the return to a mystic or psychosophic point of view. The objective loses its exact content, reverting from the naturalism of Democritus back to the hylozoism of the Ionics.

The service of Plato, accordingly, in the doctrine of ideas, consists in having developed the subjectivism of Socrates and in having rationalised the spiritualism of Anaxagoras; not certainly in having clarified the concept of nature or in having hastened the advent

[1] For the worst offenders, being everlasting, it is no longer "purgatory," but "hell."

of scientific method. Psychology, understood in the empirical sense, remains a part of "physics," which treats of the shadow-world.

In discussing the reason, Plato held that the knowledge awakened in the mind—all learning and research —comes by a "reminiscence" (ἀνάμνησις[1]) from some earlier existence. He formulated the two laws of association, known as "resemblance" and "contiguity," to explain the play of ideas.

Finally, we should remark that two great directions are represented in Plato's views. In the first place, he started out from Socrates' instrumental theory of knowledge; concepts are the instruments and means of attaining practical and moral ends. But in making ideas themselves realities, Plato goes over to a more rationalistic point of view. Instrumentalism passes into absolutism. The point of unity of the two is, as we have already noted, the identification of the highest idea or God with the absolute Good. The question arises, then, by what mental process—whether idea, feeling, intuition—this identification is effected.

We here reach the apex of this extraordinary structure of thought. While in his later life (in the *Timæus*), Plato emphasised rationalism by making existence the outcome of ideas of identity and difference—the soul having existence in this sense—still his characteristic view is more mystical. Plato the poet, the artist, was as profound in sensibility as Plato the philosopher was in thought. The divine reason in man, he says, responds to the divine good in God; by love and contemplation the soul realises the union of wisdom and goodness in God, and attains its own proper immor-

[1] This doctrine is found in Plato's exposition of Socrates' views in the *Menon*.

tality. Plato's doctrine of divine love (ἔρως), exercised by immediate contemplation of God, is a recognition of the synthesis of knowledge and value, of thought and practice, in a higher immediacy which is contemplative and æsthetic—"pancalistic"—in character.[1]

It makes the æsthetic the fundamental reconciling category. This is the first appearance in the history of philosophy of another movement which clearly appears at the same relative place in normal individual reflection. The individual presses the two modes of mediation, cognitive and active, each to its limit; and at the limit, each of them by an outgo of the imagination postulates its own ideal. Then, overcoming this final opposition, the two ideals become fused together in the one immediate and ineffable object of contemplation. The æsthetic mode of apprehension is thus called into play; it reaches the reconciliation of the terms of the dualism of thought and action; its object is one of beauty, one to love and adore.[2]

It was this form of Platonism, not the developed rationalism of Aristotle, that first gained currency, through the Neo-Platonists of Alexandria, and held its own for more than two centuries.

The child's preparation for the enjoyment of beauty undoubtedly involves the play-functions, as current

[1] See below, Chap. II of Vol. II, on Kant's *Pancalism*. Plato, however, proscribed most forms of art from his ideal Republic, holding that they had too "softening" an effect in education.

[2] An analogous interpreta ion of Plato is presented, with psychological insight and great learning, in Prof. J. A. Stewart's book, *Plato's Doctrine of Ideas*. He uses, as I do here, the terms "instrumental" and "æsthetic" for the two Platonic points of view. For the analogy with the individual's process, one may note the suggestion made in the author's article, "Sketch of the History of Psychology," *Psychological Review*, May 1905 (developed in University lectures). See also W. D. Furry, *The Æsthetic Experience* (1908.)

æsthetic theory admits. By these functions mental material becomes detached and disposable for "semblant" and imaginative uses. Something analogous is seen in the course of Greek reflection in the sophistic "play" of ideas.

In the *Minor Socratic Schools*, the "Megarics" (Euclid of Megara), the "Cyrenaics" (Aristippus), and the "Cynics" (Antisthenes, Diogenes), the Socratic leading was dominant, with little further result for psychology. The beginning of "hedonism" appears in Aristippus, who, on this point, prepared the way for the Epicureans. He taught that pleasure was positive, not the mere removal of pain; also that pleasure, defined in sensuous terms, constituted the good and afforded the criterion of truth. Virtue was prudential in character. In the Cynics, we have similar suggestions of the philosophical positions reached later on by the Stoics; nature and fate were the great realities, to which man was to subject himself with simplicity and without pretence.

CHAPTER V.

The Third Period of Greek Speculation—Objectivism.

Aristotle and the Rise of Objectivism.—It would seem that Aristotle (384–322 B.C.),[1] without doubt the greatest scientific man, if not also the greatest speculative genius, that ever lived, arose to restore the empirical tradition to philosophy after the plunge into absolutism. The time was ripe for the foundation of empirical psychology, and following his scientific instinct, he founded it. But the time was not ripe for its entire philosophical justification, and he did not justify it. He had the right to found formal logic, and he took advantage of the right. His achievements in natural science, politics, æsthetics, and ethics are also those of a man of the highest constructive genius.

These remarks follow from the one statement that Aristotle developed both the empiricism of method of Socrates and the rationalistic logic that Plato inherited in the Ionic and Pythagorean tradition. Confining ourselves to the psychological bearings of his views, we will look at his doctrine from both sides, taking the metaphysical first.

Aristotle distinguished four sorts of "cause," as working together in things: "efficient," "formal," "final," and "material" cause. Of these, three fell together on the side of form (εἶδος), manifested in reason, soul, and God. The fourth, the material cause,

[1] Called the Stagirite from his birthplace, Stageira, a Greek colony in Thrace.

is matter (ὕλη). This is Aristotle's interpretation of dualism. Aristotle declares that final cause was the relatively new conception which had been clearly distinguished before him only by Anaxagoras.

But matter is not an independent principle: it exists only in connection with form and design. It is a limitation, a relative negation. The only independent absolute principle is God, who is, as in the Platonic teaching, both Reason and the Good.

With such a metaphysics, there is no positive justification of science, psychological or other. Objective nature is teleological, an incorporation of reason, which gives it its form, movement, and final outcome. Life is a semi-rational teleological principle, working to an end—a vitalistic conception. All form in nature is the product of a formative reason. Natural phenomena are not purely quantitative; formal distinctions are qualitative.

The objective world is thus given its right to be; but it is a world in which reason is immanent. There are two great modes of reason, considered as cause, in the world: a cause is either a potency (δύναμις), or an act, called "entelechy" (ἐντελέχεια) or actuality (ἐνέργεια). Reason or form, when not actual, slumbers as a potentiality in nature. Pure reason or God is pure actuality; matter is pure potentiality. As such God merely exists in eternal self-contemplation, apart from the world. The heavenly bodies are made of ether (not matter like that of the four elements) and have spirits; they are moved by love, directed toward God. In this we have a concrete rendering of the ideas and divine love of Plato.

On this conception, "physics," which deals with phenomenal appearances, including psychology, is con-

trasted with the theory of causes, "first things," or "metaphysics." [1]

This philosophical conception so dominates Aristotle's mind that he practically abandons, in theory, the subjective point of view. In his view of the soul, he goes over to a biological conception, which is, however, not that of evolution. Natural species, like the types of Plato, are immutable.[2] The soul is the "first entelechy" or formal cause of the body; in essence it is akin to ether. It embodies also the efficient and final causal principles. Man, in the masculine gender, alone realises the end of nature. Psychology, thus fused with biology, extends to plants and animals and so becomes a comparative science. The plants have nutritive and reproductive souls; they propagate their form. Animals have, besides, the sentient and moving soul, which is endowed with impulse, feeling, and the faculty of imaging. In man, finally, the thinking or rational soul is present. This is implanted in the person before birth from without; and at death it goes back to its source, the divine reason, where it continues in eternal but impersonal form. It is twofold in its nature in man, partaking both of divine reason and of the sensitive soul; it is both active and passive (*νοῦς ποιητικός* and *νοῦς παθητικός*).

In the theory of the relation of these souls to one another, Aristotle advances to a genetic and strictly modern point of view. They are not separate "parts," having different local seats in the body, as

[1] The subjects that followed "after physics" (*τὰ μετὰ τὰ φυσικά*) in the collection of Aristotle's writings made by Andronicus.

[2] Animal forms show a gradation up to man, but they do not represent an actual evolution, as the Ionic philosophers had declared, but incomplete or abortive efforts of nature, which aims at producing man in whom the active reason appears.

Plato taught, but functions of the one developing principle. The higher is developed from and includes the lower.

In all this, it is evident that while the objective point of view is maintained, still the doctrine is not the result of a searching of consciousness; nor does it employ a strictly empirical method. It does not isolate the sphere of mind as one of conscious fact, distinct from that of the physical. The results are on the same level for mind, life, and physics in the narrower sense; they are deduced from the immanental conception of nature as a whole. So far Aristotle the metaphysician.

But Aristotle the scientific observer is still to be heard from. It is clear that psychological facts may be observed, just as other facts may be, even in the absence of any clear distinction as to the presence or absence of consciousness. Aristotle set himself to investigate the functions of the soul, looking upon it as the biological principle of form in nature.[1] In this sense, as using an objective method of observation, and as making important and lasting discoveries, he is properly to be described as the pioneer psychologist.[2]

We may now enumerate the most celebrated psychological doctrines of Aristotle, those in which his permanent influence has shown itself.

He divided the mental functions or faculties into two

[1] In this he anticipated the modern, more explicit attempt to objectivise the mental sphere while retaining the essentially subjective character of its content. It appears later on in Comte's attempt to do justice to psychological facts in connection with social, and in recent definitions of animal psychology as the "science of animal behaviour," both matters touched upon later on.

[2] Aristotle's psychological treatises are *De Anima* (περὶ ψυχῆς) and *Parva Naturalia*. A recent work giving a translation into English, with full Introduction and Bibliography, is by Prof. W. A. Hammond, it is entitled *Aristotle's Psychology* (1902).

classes, the "cognitive powers" (those of knowledge and reason), and the orectic or "motive powers" (those of feeling, desire and action). This division survived until the threefold Kantian classification of intellect, feeling, and will came in.[1]

Aristotle's theory of knowledge extended from sense-perception at the bottom of the scale to the active reason at the top. There are three stages: sense-perception (αἴσθησις), imagination (φαντασία), and thought (νοῦς). He accounted for perception by supposing harmony or correspondence between the sense-function and the stimulating external conditions—as, for example, between vision and the illuminated object—the harmony consisting in the form common to the two, and its favourable condition being a mean between extremes of stimulation. The general function of sensation is to take the form of the object, without the matter, over into the mind. He distinguished five senses, correlating them with the physical elements. Colours were compounds of black and white, the original qualities of light. Similarly, all tastes were combinations of sweet and bitter.

For the co-ordination of the various sensations and their formation into true perceptions, Aristotle supposed a "common sense," located in the heart. It is also by the common sense that images arise and become

[1] In his general psycho-physical conception, Aristotle is startlingly modern, save, of course, in the actual results reached. He gives detailed and conclusive reasons for locating the soul not in the head but in the heart, which, as he discovered, was the centre of the vascular system; for considering heat the material substratum of life and mind; for regarding the veno-arterial system (with the blood) as the channel of communication of sense and motion. But for our knowledge of nerve and brain, we should consider his argument a model of inductive reasoning, as indeed it was taken to be for generations.

memories, dreams, and fancies. These images in their revival follow three laws of association: "contiguity," "resemblance," and "contrast." It is in the common sense, moreover, that the judgment of things as true or false takes place, and the common "sensible qualities" —motion, number, shape, size—are attributed to things. The common sense gives unity to consciousness itself.

Only man has active recollection and constructive imagination (as employed in art). The imaging function is necessary to thought as sensation is to imagination. By the productive imagination the necessary schemata are supplied to the reason.

In the creative or higher reason, Aristotle finds a principle which brings rational certitude into the empirical matter of the common sense. As adding an element of absolute form, it is "active"; as having commerce with empirical data it is "passive." The interpretation, however, of the active as contrasted with the passive reason, is in dispute.[1]

In the investigation of thought proper, the entire body of formal or "Aristotelian" logic was worked out. The theory of syllogistic inference sprang full-formed from the brain of Aristotle. He even suggested, in his treatment of the "practical syllogism," that the laws of conduct might be thrown into similar form.[2]

In his theory of the "categories," of which he finds ten, Aristotle enumerates the different modes of predication possible about the same thing or subject.

[1] See Hammond's account of the different views (*Aristotle's Psychology*, Introduction). No doubt the best commentary is that afforded by the theoretical developments which followed upon Aristotle's incomplete statements.

[2] *Eth. Nic.*, 1147b, 18. The "Nichomachean ethics" is thought to be a treatise on morals addressed by Aristotle to Nichomachus, his son.

Similar fruitfulness attached to the investigation of the motive powers. All perceptions, said Aristotle, are accompanied by pleasure and pain, which also characterise emotion, and issue in impulse and desire. Pleasure and pain are, in general, signs, respectively, of advanced and hindered life. Emotion is a mixture of pleasure and pain, either actual or suggested by percepts and ideas. On the basis of emotional differences, Aristotle founded differences of temperament. These remarkable positions remained the exclusive doctrines in the domain of feeling until modern times; and they are integral elements in the scientific conceptions of to-day.

As to the active and voluntary life, the same rare genius displays itself. Impulse and appetite are stimulated by pleasure and pain; emotion prompts to action. But along with this impulsive spontaneous action, there is deliberate will, which arises in desire. Desire is awakened by ideas or knowledge. There is a hierarchy of active motives and ends, as of intellectual states; stages of desire, will, and rational choice depend respectively upon perceptions, empirical knowledge, and rational insight. This introduces a certain rationalism into the theory of the practical reason, and reminds us of Socrates' theory of the relation of conduct to knowledge. The rational will is free; but the principle of will in general extends into all organic nature, in the form of impulse or potentiality. It is somewhat analogous to the "conatus" of Spinoza and the "blind will to live" of Schopenhauer.

In morals, the doctrine of the "mean"—virtue being the mean or moderate exercise of a power, tending to self-realisation—had its influence on the Stoics and Epicureans.

These principles of Psychology and Logic were carried by Aristotle into the domains of "Ethics," "Politics," "Æsthetics," and "Rhetoric" with a success that has made him one of the greatest authorities in all these subjects for all time. In his discussion of art, developed in the *Poetics,* he holds that the artistic imagination is imitative (*μίμησις*), producing a purified or idealised picture of the real. Art is always concerned with appearances (*φαντάσματα*), which are semblant of the real. The drama serves to afford an outlet for the emotions of pity and fear—a function by which the soul is purged and ennobled. In accordance with this view, the universe is a work of art, a whole in which an ideal is presented in sensible form. It is present eternally to the contemplation of God, to whom it responds with love through the spirit which is in it. In this we see the tendencies which were referred to in the case of Plato as being "pancalistic," losing something of their mysticism and taking on more articulate form.

Summing up, we may say of Aristotle that his philosophical theory did not advance or clarify the dualism of mind and body; but that this dualism was re-cast by him in the distinction of "matter and form." This obscured the subjective point of view. It placed emphasis upon the objective to such an extent that mental phenomena, considered as vital form, became matter for objective observation along with physical phenomena. In this way, psychology was treated as a branch of natural history or "physics"; and as such it took an enormous stride forward.

Incidentally, also, the doctrine of the soul as form led Aristotle to combat theories of a spiritistic and "psychosophic" character, such as metempsychosis and

pre-natal reminiscence. This was an important gain to the naturalistic point of view. But Aristotle's vitalism prevented its issuing in a complete scientific naturalism.[1]

But, as we are to see, of the two sides of Aristotle's doctrine the formal, embodied in the new logic, was to gain the ascendency. With this weapon the Patristics, Scholastics, Casuists, Logicists, and deductive reasoners of every sort hit about them with deadly effect, having their way for centuries, while natural science slumbered under the pall of the Middle Ages.

II. *The Post-Aristotelian Schools:*[2] *The Epicureans.* —Epicurus (342–270 B.C.) reproduced tendencies current before Aristotle, but united them in a more consistent philosophy. The atomism of Democritus, says Epicurus, gives the proper account of the soul; its faculties are built up upon sensation, its desire is for pleasure, and it dies with the death of the body. For psychology, the life of sensation and that of activity

[1] This has remained a hindrance in the development of the subject-matter of positive science. In the growth of the modern sciences, psychology has been about the last to attain the full naturalistic point of view. The physical sciences achieved it earliest, that is, the sciences of the purely objective and external. But they were long embarrassed by the intrusion of an ill-defined and mystical postulate of soul or mind or reason, made the explaining principle even in the domain proper to science. It was to be expected that physical, like mental science, would be able to define its subject-matter clearly only after the substantive distinction between mind and matter was achieved and the latter was defined in terms of extension. Only later still—and not completely yet—have the biological sciences freed themselves from this sort of intrusion; seen in animism, vitalism, and teleology in its various forms. As to psychology, the distinction between naturalism of content and method, and spiritualism of principle finds difficulty in maintaining itself to-day.

[2] An able account of the period is to be found in Caird, *The Development of Theology in the Greek Philosophers*, II, Lect. XV.

in the pursuit of pleasure, sum up the teachings of the school. Sensation is produced by images passing from the object through the air and striking upon the sense organ. A doctrine of freedom, in the sense of caprice, is based upon the postulate of accidental deviations in the course of the falling atoms. This is the first appearance of articulate sensationalism in psychology, and as in its later appearances, in the French Encyclopædists, for example, it is associated with a materialistic metaphysics. It unites the subjective relativity of the Sophists with the physical ontology of the Atomists.[1]

The Stoics.—Under this heading (derived from the word στόα, a porch) a great variety of tendencies is gathered together and a group of thinkers included. Zeno "the Stoic" (336–264 B.C.) is the founder and the most representative Greek of the group, which includes Greek and Roman literary men, as well as professed philosophers. Chrysippus (*cir.* 280–207 B.C.) was the logician. Seneca, Epictetus, and the Emperor Marcus Aurelius were prominent Roman Stoics.

The Stoic movement was a return to sober and practical understanding, after the vogue of high theories of the reason. Knowledge in the interest of practical life; prudence guided by information; freedom as expression of personality in a world ruled by law and subject to fate; social obligation and calm enjoyment over against capricious individual pleasure: such were the Stoic counsels of moderation, justified here and there by personal and eclectic philosophical considerations.[2] Conscientiousness toward man and resignation

[1] The great poem, *De Natura Rerum*, of the Roman poet Lucretius, presents in not too faithful form the philosophy of Epicurus.

[2] Cf. Caird, *loc. cit.*, Lect. XVII, for an account of the general social bearings of the Stoic movement.

toward fate are its watchwords. In the Roman group they were embodied in lofty maxims of friendship, duty, and humanity.[1]

Little that is psychologically noteworthy—as distinct from the practically moral—appears in it; and what does appear is suggested rather than explicitly stated. Zeno contended, against both Plato and Aristotle, that the soul was one, a unit function in whose activity all the parts and powers of sense and reason were included. The conception of common sense, considered as a centre of organisation and unity, was expanded into a doctrine of "consciousness," which was of the nature of knowledge—literally a "knowing together." Feeling and will were aspects of knowledge, while error and misfortune were due to its abuse or misdirection. Sensation is accepted or agreed to by the understanding.

The soul was corporeal, fire-like, and ethereal, as was also the world-soul or God. The world developed by laws, showing "necessity" (ἀνάγκη), the Epicurean "chance" (τύχη) being excluded; it embodied reason (λόγος)[2] and showed divine Providence or design. There was a cycle of creative periods; and the soul had only the duration of one of them.

On the whole, the Stoics vindicated the Socratic practical wisdom in real life: a tempered and humane enjoyment and a just resignation. Their dualism was that which appears between the values of experience and life on the one hand, and a colourless but neces-

[1] Undoubtedly the loftiest and purest of moral codes based on humanity; it yields only to the Christian ethics of love, expounded so soon after in the "Sermon on the Mount."

[2] The term "logos" was used before this by Anaxagoras in connection with the principle of reason. It passed through Stoicism and Alexandrianism into Christian theology.

sary world-order on the other. They undoubtedly gave a more positive and lasting meaning to the subjective life, the inner seat of affective and active processes, sharing this with the Epicureans. And in the doctrine of the unity of common sense or knowledge, they transferred speculative interest to the self as the bearer of consciousness and the centre of values. This was the transition of view-point required to give to psychology its restricted sphere and to justify its place as a science of inner or conscious phenomena, after the undue objectivation of the mental by Aristotle.

With the clarification of the inner sphere thus brought about, the analogy with the "subjective" stage in the individual's self-apprehension goes forward. Racial reflection, like that of the individual—when once the thought of self as the centre of conscious processes is achieved—never again loses this vantage-ground. Consciousness, the background of the Sophists' scepticism, the theatre of Socrates' dialectic, the object of Aristotle's research, and the postulate of occultism and theological mysticism, is on the point of becoming the presupposition of speculative thought. It had to wait, however, to come actually and fully into its own, for the emancipation of reflection, after the period of the domination of the Church.

III. *The Greek Mystics, Neo-Platonism.*—The elements of mystic contemplation found in Plato became explicit in the Greek Mystics. The influence of Oriental thought, notably Jewish, united with this in a revolt against the exclusive pretensions of the reason as organ of apprehension of the world and God. For this the new intuition of the conscious person, the embodiment

of the soul, thrown into relief by the Stoics, and soon to be explicitly demonstrated in an anti-materialistic sense by Plotinus, supplied the needed vehicle. It was furthered by the sceptical criticism of the members of the New Academy (*e.g.* Carneades, *cir.* 213 B.C.), who developed the theory of relativity of Aristippus and the Sophists.[1]

The world issues from God by a series of emanations or outpourings; by these he is manifested, without loss or impoverishment to himself. In concentric circles, the Divine becomes dilute, its perfections are impaired in the world-soul and in angels, demons, and men. This is the "fall," the descent of man. The ascent is through love and ecstasy, by which the soul rises through a series of embodiments, gains the stars, and finally reaches again its divine source.

In *Philo of Alexandria*, called Philo Judæus or "the Jew" (*cir.* 30 B.C.–A.D. 40), the explicit union of Jewish theology with Platonic idealism is effected. In the series of personal beings interposed by Philo between God and man is the "Word of God"; a doctrine in which the "Logos" of the Stoics becomes the "Word" or "first begotten Son" of the Gospel of St. John. Philo makes the conception of personality fundamental, and depicts the world as the imperfect form in which the perfect reveals itself. In these vital points, he leads the Alexandrian movement.

In the Neo-Platonist group proper, or "Alexandrians," *Plotinus* (A.D. 205–270) is the commanding figure.[2] In his doctrines, the motives of speculation are clearer,

[1] To these more intrinsic factors should be added the recrudescence of psychosophy and superstition favoured by the disturbed political and social conditions after the Macedonian invasion.

[2] Assigned to the school of Alexandria, though born in Egypt out of that city, and teaching, after about A.D. 245, in Rome.

DUNS SCOTUS.

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since they are more essentially Greek. The emanation theory becomes a philosophy of creation which, as Harms points out, leaves aside the principles of causation and finality, both essential in the rational thought of the time. The world-movement is depicted as one simply of occurrence, happening, the embodiment of a rational principle. God reveals himself in successive pulsations, proceeding from his inner nature; instead of in a hierarchy of ideas, originating in thought. There is a hierarchy of quasi-personal existences, apprehended by the soul as in nature one with itself. The different "souls" of Plato and "mental powers" of Aristotle indicate stages of degradation of the divine person, down to the animal and reproductive soul, and finally to matter itself.

Plotinus argued directly for the spirituality of the soul. His two main positions were, first, that the animate organism could not arise out of the inanimate particles by combination; and second, that continued personal identity is proved by memory. The latter position probably suggested the doctrine of "memoria" of St. Augustine, mentioned below.

To Plotinus, God is a mind, without body or self, in which all ideas arise. He is the first stage in the manifestation of pure identity, or being, or the One,[1] conceived very much in the sense of the substance of Spinoza. After Mind comes the world-soul, which is in turn present in all individual souls. These last are conscious and personal. The individual arises, by a series of intuitions of the successive stages or embodi-

[1] According to Boutroux (*Historical Studies in Philosophy*, Eng. trans., p. 157), Plotinus himself connected his transcendent One with the Absolute of Aristotle, which existed apart, in pure self-contemplation.

ments, to a state of union with the impersonal and absolute One. This is a state of ecstatic love and contemplation.

The movement is mystic in two senses, both of which are important for the history of the development of dualism. In the first place, God,[1] and with him all concrete reality, is in essence a personal presence, not a rational idea. The movements in the real are likewise inherent and immanent, simply presented as given facts; observed, not accounted for on logical grounds. The dualism, therefore, of objective things and personal soul (whether rational, sensitive, spiritual, or whatever it be) is abolished. Its terms are reconciled through the intuition of unity in their divine source.

Again, the same appears in the method of apprehension of God or the real. It is by an act of contemplation or direct intuition that the human soul vindicates its oneness with the divine. The will goes out in ecstasy, the heart in love; the will subsides in self-repression, the heart in a trance-like calm. The divine presence, not revealed to thought or attained by effort, is taken up in feeling, by a movement of personal absorption. Here we see the legitimate development of Platonic "love," freed from its rational presuppositions.

The "ejective" process, the reading of God and the world in terms of personality, reaches here its culmination. It is the form of pan-psychism which succeeds to the heritage of Ionic hylozoism and the Platonic "idea." With this the motives of reconciliation of dualism appear in personal intuition, contemplation, emotional and æsthetic realisation. In the earlier

[1] Or, with Plotinus, the next lower being, the "world-soul."

doctrines, the true and the good were reached indirectly, mediated by ideas: here they are apprehended immediately and directly in an act of communion with God.[1]

[1] The Indian systems, which we have no space to describe, present analogies with Neo-Platonism. They give an exhibition of thought which is in principle intuitive rather than reflective, contemplative rather than logical. We can easily see, on comparing Oriental with Occidental civilisations, which of the two types of thought has proved fruitful for science, including psychology. For a comprehensive exposition of Oriental systems, see J. E. Carpenter, article "Oriental Philosophy and Religion," in the *Dictionary of Philosophy and Psychology* of the present writer. Harms (*loc. cit.*, pp. 193f.) makes an interesting comparison of Oriental and Greek dualisms with that of Descartes.

PART III.

THE RIPENING OF DUALISM

CHAPTER VI.

The Patristics, Scholastics, and Arabians; the Mystical Reaction.

I. *Christian and Patristic Psychology.*[1]—The motive of dualism, fundamentally present in experience, was not permanently overcome by the mysticism of Alexandria. The voice of reason, no less than the demands of conduct, insisted upon the distinction between the self and the world. The achievement of the consciousness of personality only served to reinstate this distinction in more mature form. This appeared in the spiritual and logical dualisms that dominated Patristic and Scholastic thought, and culminated in the doctrine of "substances" of Descartes.

The point of view represented by the Founder of Christianity was ethical rather than psychological. It placed in a new light, however, certain essential truths of the subjective life. The "Sermon on the Mount," the most sublime of moral discourses, places personal responsibility in motive, intention, rather than in obedience to authority or in explicit action; and so bases morals upon the innermost springs of conduct. It is a sharp rebuke to externalism and legalism.

[1] See the well-documented article on Patristic Philosophy by E. T. Shanahan in the writer's *Dict. of Philosophy and Psychology*

New doctrines of justice and love are also taught: the justice of the "golden rule," and the love that turns the other cheek. The personal virtues of humility, charity, resignation, of the Stoic Moralists receive a new interpretation in the principle "out of the heart are the issues of life." In this practical subjectivism, Jesus may rightly be looked upon as a new and more enlightened Socrates.

The general theory of personality also had its advancement. The doctrine of the Fatherhood of God gave new force to that of the brotherhood of man. This figure of speech was employed by Jesus himself —the figure by which a most intimate social bond was symbolized between men and between man and God. A personal individualism, tempered and sustained by universal moral justice and love—as in the answer to the question, "who is my neighbour," in the Parable —is the Christian substitute both for the naïve collectivism of early Greek thought and for the more conscious solidarity of Roman nationalism and civic pride.

The spiritualism of the Church Fathers was a view of the soul worked out in the interest of Christian eschatology. Developed into a message of salvation, the theory of Christianity involved statements as to the nature, origin, and destiny of the individual soul. It was to the single soul, also, in the person of the individual convert, that the message of the gospel made its appeal. The Fathers held in common to the view that the soul was "spirit," personal in its conscious nature, and immortal; that it was created by God, who was also a person; that demons and angels existed; and that the Saviour was a mediating person, partaking of both divine and human characters, by whom the human

soul was restored or "saved." The differences among them began in the discussion of further philosophical questions, by which they endeavoured to rationalise this body of doctrines in a system of apologetics.

Under these limitations, of course, psychology and philosophy could not be motived by strict observation or by free speculation. Thought was conducted from a platform of divine revelation and dogma. In all growing religious tradition, the assumptions underlying belief consist in a body of revealed or decreed truths; and further thought is confined to the exposition and defence of these truths in a system of apologetic interpretations. This aspect of the Patristic thought does not directly concern us; its psychology is soon summed up.

The controversy between "creationism" and "traducianism" concerned the origin of the individual soul. Creationism was the view that the soul was created by a divine act at the moment of conception. According to traducianism, the soul was passed from parent to child, in a new individual form, all souls having been potentially created in the first man.

The concept of personality had acute discussion, carried to the extremes of refinement by the Scholastics. The relation between divine and human personality was taken up; especially the relation between the two aspects in the personality of Jesus and among the three persons in the Trinity. These subjects, although standing mysteries, were nevertheless topics for theological definition. The purely logical and *ex parte* character of the results points the way to the formalism of High Scholasticism.

In *Saint Augustine* (354–430), however, the greatest of the Fathers, we find a mind formed in the mould

of Aristotle. St. Augustine gathered into one the scattered results of what was best in Greek psychological thought. He held that the soul was to be approached and known directly through consciousness; that it was immaterial in character and immortal; that inner observation was possible and necessary. Resulting from such observation, he found that the mental life was one of continual movement in the one spiritual principle, and showed itself in three fundamental functions: intellect (*intellectus*), will (*voluntas*), and "self-conscious memory" (perhaps the best rendering of *memoria*,[1] as St. Augustine used the term). The fundamental moving principle of the entire mental life is will. The other functions manifest will.

This develops the Socratic tradition in the direction of the emphasis on conduct or activity, over against the rationalism of Plato. But in St. Augustine the emphasis on will is accompanied by a corresponding recognition of feeling; a position in which the religious interests and intuitions were no doubt involved,[2] but which was none the less new and fruitful. His argument for freedom of the will, within the broad concept of determinism, is classical.

The soul has also the power of knowing itself; the faculties turn in upon themselves; we reflect upon our own states of mind. This was to St. Augustine the key to divine knowledge; for in reflecting upon ourselves we discover the characters of the spiritual principle and of God. This is the end of all knowledge.

In such teaching St. Augustine shows himself to be

[1] In "memoria" St. Augustine found the consciousness of self as identical (with Plotinus), as persisting (not self-forgetting—hence *memoria*), and as eternal. In memory, the distinction of past, present, and future are annulled in an intuition of eternity.

[2] As mediated through the Alexandrian tradition.

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after Aristotle the second great pioneer in the history of psychology. By him, the sphere of fact which psychology is to make its own is clearly marked out: the sphere of conscious events, apprehended by introspection. He also develops further the dualism of mind and body, by defining mind in terms of will and activity, terms which find their meaning only within the conscious life itself.

It was no doubt only his theological interest that kept St. Augustine from taking the radically dualistic step taken later on by Descartes, who denied all interaction of mind and body *inter se* in view of their disparity as substances. The resurrection doctrine and the theory which attributed to demons and angels the power of acting on the physical world may have contributed to keep St. Augustine from raising the psychophysical question of interaction, and from answering it in the Cartesian manner. It appears to be clear, however, after all reservations have been made in the case of St. Augustine, that the absolute substantive separation of mind and body is not reached in the Patristic writings, but rather a logical separation in the interest of the distinction between "spirit" and "flesh," between the "kingdom of heaven" and that of sin or "fleshly lust." Tertullian, another leading psychologist of the Latin Church, no less than St. Paul, argues for the resurrection of the body as part of the entire personality that is redeemed.[1] The risen Saviour preserves the same recognisable body, in the New Testament narrative. To certain of the Fathers (Tertullian among them) the soul is a sort of fine air-like stuff, diffused throughout the entire body—one of the many absorp-

[1] "If the dead rise not . . . then your faith is vain; ye are still in your sins."—1 Cor. xv. 16–17.

tions from Greek thought of views which proved to be available in the service of Christian dogmatics.[1]

Further, according to St. Augustine, by the knowledge of self scepticism regarding the external world is refuted; for the self distinguishes itself from its objects. Whatever deception or illusion there may be in sense-perception, it arises in the judgment or interpretation of sensation; it is not in the sensation itself. The belief that something real is external is proved by the facts.

In this a further most important phase of dualism discloses itself: that between the subject and the object of thought. In establishing this dualism, reflection passes into the clearly logical period; that is, it becomes conscious of itself as an activity of judgment; it interprets its own contents. The full results of this step appear, as those of the "substantive" distinction just mentioned also appear, only in Descartes. But it is safe to say that Descartes occupies the conspicuous place he does, in both of these respects, in part certainly, because of his historical position as following after the great Patristic writer, St. Augustine.

In considering Aristotle, we saw that psychology was pursued by him in the spirit of natural history, but without entire theoretical justification; to him mind and body were still united in the one φύσις or "nature." St. Augustine took the further step that justified

[1] Harms, *loc. cit.*, p. 208, probably goes a little too far in intimating that nothing in St. Augustine's recognition of the facts of consciousness is in contradiction with such a view of the soul. For St. Augustine not only argues against the corporeality of the soul, but finds its essence in the will, much as Descartes found it in "thought." In Nemesius, Bishop of Emesa (about 430, Περὶ Φύσεως Ἀνθρώπου; Latin, *De Natura Hominis*), we find a sharp dualism insisted upon, in opposition to the "entelechy" theory of Aristotle.

psychology as a science—having its own body of data, the data of consciousness, and its own method of procedure, introspection—by making the soul a principle different from matter, and known only in conscious personalities. The truth hinted at in the famous injunction, "know thyself," of Socrates, passed into the equally famous response of Descartes, "I think, therefore I am"; and coming between them, the mediating doctrine of St. Augustine might well have been framed in Cartesian fashion from the words, "*volens, sum.*"

To sum up, we may safely say of St. Augustine the following three things: (1) he justified empirical psychology by separating off and defining the inner world of mind as distinct from physical nature; (2) he developed the dualism of mind and body up to the point at which their actual separation as different substances could be made by Descartes; and (3) he established the function of reflection, by which the self distinguishes itself as subject from the objects of its thought, thus carrying dualism on to a new stage of development.

II. *The Scholastics.*—The writers who are grouped under this title were also men enlisted in the service of the Church. The Church was the guardian of learning during the long period from A.D. 400 to 1400. The religious orders in Paris and Oxford, led by dominant spirits, became camps of doctrine devoted here and there to the defence of this or that philosophical tradition in theology. Of the great Scholastics, Albertus Magnus and Thomas Aquinas were Dominicans, Duns Scotus a Franciscan.[1]

[1] Full treatment of this period is to be found in the Histories of Philosophy. Especially authoritative are the detailed articles by Siebeck in *Archiv für Geschichte der Philosophie*, Bd. I-III, and Bd. V

The Aristotelian and Platonic directions of thought are plainly distinguishable, together with the mystic influence of the Alexandrians. Platonism appears early in the movement in modes of idealism which place emphasis on reason, the validity of general knowledge, and the more mystic forms of intuition fathered by Plotinus. Aristotelianism, on the other hand, gained complete ascendency in the later writers, both in the shape of a logical formalism, and in emphasis upon the validity of particular knowledge, the subordination of the idea or form to matter. It was probably only the really vital psychology of St. Augustine, with its emphasis on will and the concrete life, that saved the Church for long periods from the sterile logic and degenerate, or at least casuistical, practice that finally came to mark its intellectual and moral life.

The influence of St. Augustine showed itself in John and Richard of St. Victor in the twelfth century. The Abbots of St. Victor made out three avenues of knowledge—called by them "eyes of the soul": sense, reason, and intelligence. But these were stages in the progress of the mystic apprehension or contemplation of God, and the recovery of the soul from sin. The problem of evil in the world, discussed by St. Augustine, was centred in that of the fall of man and the consequent reality of human sin. Error is the result of blindness due to sin; sin is not, as Socrates had supposed, due to error. In all this mystic turn of view, feeling held the prominent place.

The psychology of St. Augustine also served to give analogies by which logical "realism" could be defended: the doctrine that genus and species have real existence in nature. The three faculties were present in the one soul, which was their genus; so also in the Trinity, the three persons, each real, existed in

the equal reality of the personality of God. On the other hand, "nominalism," [1] the doctrine that the general, the genus, was only a mental representation, having merely nominal existence through the name attached to it, found reality only in the particular objects of external perception. The ideal form or type of Plato was replaced by the singular form of the object in which, on the Aristotelian view, it was embodied. This prolonged controversy had application, apart from formal logic, to theological problems mainly, such as those of the Trinity, the human race in general as involved in the fall and redemption, the nature of angels, etc.

This more psychological period of Scholasticism gave birth, however, to *John of Salisbury* (*cir.* 1150), a man who may properly be described as one of the forerunners of modern genetic psychology. This thinker worked out a theory of the continuous development of knowledge, pointing out the transitions of function as they actually take place from sense-perception to reason. First appears sensation, and in it the germ of judgment; then imaging, with a further development of judgment in the direction of the valuation of experience, from which arise pleasure and pain, the basis of desire. Out of imagination springs rational knowledge, and through it comes wisdom, the contemplation of God.

This remarkable anticipation of the genetic point of view, giving as it did specific content to the theories of mental activity, movement, and will of St. Augustine

[1] Between Roscellinus and Anselm, nominalist and realist respectively, the controversy was joined. The middle or "conceptualist" view holds that general concepts contain knowledge of general realities.

and the Monks of St. Victor, remained quite fruitless. It was swamped by the flood of High Scholastic subtleties that the swelling current of verbal logic bore with it.

Albertus Magnus, Thomas Aquinas, and Duns Scotus are the commanding figures of "High Scholasticism." With *Albertus* (1193–1280) we find the clear enunciation of the doctrine of "creation out of nothing" which broke once for all with theories of emanation and of the eternal existence of matter. Matter was the product of a divine "fiat"—whether intellectual or volitional, opinions differed. The human soul was included in the act of creation, but it was made in the likeness of God. That is, it was rational and personal.

Thomas Aquinas (1227–1274), the Angelic Doctor of modern Roman theology, developed an acute and modern-sounding theory of the mutual relation of reason and will. Each is dependent upon the other: knowledge is instrumental to action; and action contributes to knowledge. Thomas also confirmed the Aristotelian distinction between active and passive reason, as well as the doctrine of matter and form. The rational soul is a principle which has its form entirely within itself; it is not, like the sensitive and animal souls, subject to stimulation from the external world to which it reacts. In this theory, the doctrine of matter and form is revived and extended. The rational soul, like God and the angels, is pure form; and as such it is immortal. The lower soul is a sort of form which inheres in matter and constitutes the principle of vital organisation. The active reason or pure form, however, exists only along with the passive reason, and is always personal. Within the function of knowledge, the rôle of active reason is to reach general or abstract concepts, the logical species or kinds which underlie sense-percepts

and images. Sensation itself is not due to the transfer of material images or effluvia, but is in principle a mental or spiritual impression.

The significance of Thomism for us would seem to reside in the truce it declared in the rivalry between the biological and theological conceptions of the soul. The soul is rational; but its life takes on a personal form, which includes the biological aspect of individuality. Preserving the psychological point of view of St. Augustine regarding personality, St. Thomas endeavoured to avoid a sharp dualism of person and matter by a return to the matter-form theory. Like other compromises of the sort, it has not had the influence, outside of Church circles, that the genius of its author deserved. Catholic writers, however, justly cite it, and also the many isolated points in which St. Thomas anticipated the results of modern thought. Thomism also had the merit of so far justifying a naturalism in scientific point of view, and so of encouraging a tolerant attitude toward modern science.

In Thomism, however, we see the logically opposing concepts of biological form and rational spirit held together by the recognition of the unity of personal experience as being subjective. This is the gain to thought that St. Thomas received from St. Augustine and confirmed by his own authority.

Duns Scotus (Duns, the Scot) (*cir.* 1265–1308), a Franciscan, reasserted vigorously the subjective point of view and insisted upon the primacy of the will. Creation is an act of divine will; and the world is constantly renewed by the continuing will of God. Further, the individual will is back of knowledge, even knowledge of self. The end of existence is the Good, which is reached by will; intelligence is instrumental,

the servant of action. Sin is a perversion of will, causing intellectual blindness, and sin is possible because the will is free.

A "suggestion" or "first thought" enters consciousness, serving as stimulus to the will; the will responds to it, embracing or rejecting it; it thus becomes a "second thought." It is this second thought, the object of will, to which the agent's freedom and responsibility attach. Good and evil do not belong to things in themselves, but to the use made of them in the voluntary "second thought" of the agent.

Duns Scotus, following the leading of St. Augustine, distinguished the emotions or "passions" as a fundamental class of mental phenomena. Before him the Scholastic leaders had looked upon feeling as a modification of impulse and desire, following the Aristotelian division.

An interesting variation upon the discussion of realism and nominalism, already spoken of, arose regarding the relation of the faculties to the "inner sense" or consciousness as a whole. Aristotle had asserted the oneness of mental function in the common sense, the Platonic "parts" or divisions of the soul being merely powers or activities of the one conscious principle. This became one of the burning questions of late Scholasticism. William of Occam maintained that all the "representations" — sense-perceptions, memories, concepts, etc.—were merely mental signs or symbols of varying orders, arising at different stages of mental function;[1] they were not pictures of different realities perceived by fundamentally different faculties or powers.

[1] See the exposition of Siebeck, *Archiv fur Geschichte der Philosophie*, Bd. X.

This raised in turn the more subtle question as to the sorts of reality arising respectively *in percipi* and *in re*, in the mental symbol and in the external world. Aristotle had held that the objects of sensation and thought were really, that is formally, present in the sensation and thought. To Plato, the idea was itself the true existence or reality *in se*. Thomas Aquinas developed a view according to which existence was "intentional" in thought; and Anselm of Canterbury based his famous argument for the existence of God on the proposition that the idea of a perfect being must imply his existence; for otherwise, lacking existence, the perfection presupposed in the idea would be impaired.

Summing up the characters of Scholasticism, we may say: (1) that the philosophical and psychological treatment of the problems of mind yielded to a logical and theological treatment; (2) that the points of view developed in these discussions—those of realism and nominalism, of traducianism and creationism, of determinism and accidentalism,[1] of emanation and creation, of secondary spiritual existences, such as spirits and demons—all proceeded upon the presupposition of the authority of the Scriptures; (3) that, so far as progress was made in psychology, it was made by bringing to explicit recognition the data of earlier thought which lent themselves to such presuppositions; namely, the nature of thought and will and their relation to each other, the essentially empirical unity of consciousness, the theory of conscious personality; (4) that the dualism of mind and body received a temporary and dogmatic interpretation in the doctrine of creation, matter being

[1] Renewed later on as between "Calvinism" and "Arminianism."

"made of nothing," while soul arose from the "breath of God" and took form in his image.

III. *Arabian Physiological Psychology.*—Contemporaneously with the earlier Scholasticism, a movement of interest developed among the Arabians who received, especially in Syria, the tradition of Western learning.

Avicenna (Ibn Sina), the physician of Ispahan (died 1037), was the first to investigate the actual relation of mind and body, especially as shown by movement. He distinguished the movements of the body which were variable and uncertain as being caused by the rational soul, which thus showed itself to be a force foreign in principle to the body. He enumerated five inner senses, located in the brain, in correlation with the five outer or physical senses: they were "common sense," "imagination" (located in the frontal region of the brain), "sense judgment," "memory" (in the posterior region), and "fancy" (in the middle region)—the last having the value of warning in the presence of good and ill. Sense knowledge issues in movement; and movement in turn contributes to rational knowledge, which is of the absolute. The rational soul, being a simple substance, is out of space and time and independent of the body.

Goodness and truth are reached by the denial and subjection of the body, by abstraction of the self from sensible experience, in order that illumination may come into the soul. Here a strain of oriental mysticism shows itself.

Alhacen was the author of a remarkable book on "Optics," written quite in the spirit of the latest treatises on the physiology and psychology of vision.

He treats of visual sensation proper, colour, visual space perception, the perception of depth, the dependence of size upon the visual angle, the assimilation of memory images to visual percepts (finding here the basis of resemblance, conception, and thought), the time required for the propagation of the impulse from the eye to the brain, indirect vision, eye-movements, etc.—problems which stand foremost in the contents of our most modern treatises. He anticipated the Helmholtz theory of "unconscious judgments" in visual space-perception. He also investigated various problems of time, as well as of space, as revealed by visual phenomena, and from such questions went on to consider the problems of apperception and illusion.[1] Alhacen's influence appears sporadically in later thinkers. He was cited by the more empirical Scholastics, such as Roger Bacon.

In *Averroes* (died 1198), finally, the psycho-physical relation was interpreted in a materialistic sense. But, on the other hand, a general and impersonal existence was attributed to the rational principle, to which the individual soul might attain by abstract thought. This combination of pantheistic impersonal reason, with naturalism or materialism in the domain of empirical knowledge, also anticipates a mode of very recent speculation.

The advance, psychologically speaking, made by the Arabian psychologists is in the direction of a statement of the psycho-physical problem as one demanding actual research. The dependence of the mind upon the body, together with the laws of correlation of the two classes

[1] Alhacen's work was translated from the Arabic in 1269. A concise list of the main topics treated by Alhacen is to be found in Klemm, *loc. cit.*, pp. 327 ff.

of phenomena, is the main problem of modern physiological psychology. Besides this new conception of method, they reached—Alhacen especially—valuable positive results.

IV. *The Mystical Reaction.*—The reaction against the logical refinements of the Scholastics—which often degenerated into barren verbal distinctions—showed itself strongly in the various groups of Mystical writers and in the rise of empirical science. The latter will be spoken of again below.

Meister Eckhard (*cir.* 1260–1327), the mystic, answered the question of the primacy of principle as between intelligence and will, by including them both in a state of feeling—the German *Gemüth.* By the apprehension of God in an ecstasy of feeling, knowledge and aspiration are fused and completed. This reinstated, in view of the alternatives of the time, the immediateness reached in their day by the Neo-Platonists; and it represented about the same motives of reconciliation. It was made logically less difficult by the Thomist revival of the doctrine of matter and form, which reduced the opposition between mind and body, and by the Augustinian emphasis on will. Eckhard was a disciple of Thomas, and a fellow Dominican. The unity of the conscious functions in feeling he called the "spark" of divine light which directed man to God; in it the dualisms and oppositions of human faculty were submerged and overcome.

The name of *John Tauler* (*cir.* 1290–1361) is associated with that of Eckhard. He also shared the doctrine of feeling or *Gemüth.* Both alike drew inspiration from their great predecessor in mystic apprehension, Plotinus.

Like the Neo-Platonic movement, this turn to mysticism showed the demand of the mind for an escape from the partial mediations of reality effected by thought and action, together with the satisfaction of this demand in a mode of higher unity achieved when the whole personality pours itself out in feeling.

Part IV.

MODERN PSYCHOLOGY. FIRST PERIOD, TO 1800

Chapter VII.

The Interpretation of Dualism.

I. *The Modern Schools.*—With the development of the dualism between mind and body up to the stage it reached in René Descartes (of whom we are now to speak), the period properly to be called "modern" commences. The meaning is not one, however, merely of modernness in time; but of modernness, first of all, in the essential state of the problems of philosophy and psychology. Up to the present, we have traced the progress of the interpretation of the world and the self as it worked out the distinction between mind and matter. The terms of that distinction being now understood, as distinguishing two substances sharply contrasted and actually separated from each other, speculation takes the form of the interpretation of this dualism itself. If we look upon the earlier thought as being a spontaneous or direct consideration of nature and man, we may look upon the latter as being a reflection upon the result of this former thinking. The dualism itself becomes a sort of presupposition or datum; its terms condition the further problem. How can mind and matter both exist and give the appearance

of interaction?—which of the two is the *prius* of the other?

These questions, as now formulated, show later thought to be an *interpretation of dualism,* as the earlier was *an interpretation of the world in terms of dualism.* While the ancient and mediæval philosophies developed a progressive distinction and finally a divorce between body and mind, the modern results in a series of attempts to accommodate them to each other again in a single cosmic household. How can the world contain two such disparate principles, and how are we to conceive of their final adjustment to each other in the nature of reality?

Psychology reflected, for a long time, the alternatives worked out by the earlier philosophical schools. So much so that the theory of the mind remained an appendage or corollary to philosophical doctrine. The alternatives were plainly enough marked, and terms have grown up to characterise them.

One may accept the dualism and devise a theory of mutual adjustment of the two substances to each other. This was the course pursued by Descartes, Malebranche, and Spinoza, and gave rise to a series of doctrines which we know as "dualistic," "realistic," and "absolutistic." [1]

But interpretation may take a different turn; mind may be made the prior term, the basal explaining term, matter being reduced to mind, or its substantial character explained away. This was the method of two great schools of "idealists," one party, the Intellectualists, finding the universal solvent in the intelligence or reason: so Leibnitz, Wolff, Kant, Berkeley, Hegel.

[1] In an interesting passage, Harms (*loc. cit.*, p. 243) makes the very valid point that it was only the radical dualism of Descartes that made possible the theories of "occasionalism," "harmony," etc., of his successors.

They produced the psychology found in the "dogmatic," "critical," and "subjective" systems of philosophy.

The other party of the idealists, the Voluntarists, sought the fundamental principle in will: so Fichte, Schelling, Schopenhauer, and many others.

These two schools re-introduce the motives of Greek "subjectivism" and Platonism, on the one hand, and of the voluntarism of St. Augustine on the other.

But in like manner the second term of the dualism, matter or body, was given priority equally by others, the independence of mind being denied. So arose reflective "naturalism" and "materialism": Hobbes, Hartley, Condillac, Diderot. In this the motives of Greek "objectivism," Aristotelianism, and Atomism reappear.

Finally, as in the spontaneous development of Greek thought, all of these—subjectivism, objectivism, dualism—may be combined in a theory of higher intuition, of the fusion or synthesis of contemplation. This embodies the "mystic" motives of feeling and faith, or makes the speculative claim of uniting the divided and partial motives of the other theories in a higher intuition; so the Mystics, the Faith Philosophers, the Intuitionists, and the æsthetic Immediatists.

In the first period of modern thought, therefore, we may recognise the psychological tendencies going with these philosophical alternatives.

(*Modern Psychology*)—

I. Philosophical Psychology.
- A. Dualistic and Realistic.
- B. Rationalistic { Intellectualistic. / Voluntaristic.
- C. Naturalistic and Materialistic.
- D. Mystic and Affectivistic.

This more philosophical treatment did not deny to psychology its scientific place and method, so far as these had been determined. As we are to see, the objectivism and naturalism worked out by Aristotle, St. Augustine, and the Arabian physiologists remained the fruitful instruments of scientific discovery. And in the theoretical development of naturalism in the other sciences—physical, vital, social—psychology was to share. An explicit naturalism of subject-matter was to arise, supplemented by an equally explicit positivism of method. This was the line of progress in all the sciences alike. If we describe the new and more scientific psychology as empirical and positive, we may treat of the main groups of thinkers under the headings of theory, method, and matter.

As to theory, the step in advance consisted in a transition from a deductive or logical interpretation of mind, which impaired the purity of empirical observation, to a full and unrestricted empiricism. F. Bacon, Rousseau, Comte, and J. S. Mill are among the important figures in the history of the development of the theory.

In the application of such a theory, variations are again possible, extending from mere description and classification to genuinely analytic, constructive, and experimental procedure. Descriptive psychology as such had its apostles in Locke, Hume, Taine, James Mill, Bain, Hodgson; constructive psychology in Herbart, Spencer, Lotze, William James. Such psychology is often called "structural," from the nature of its results.

Under the heading of method, the change in point of view brought about by the theory of evolution is to be considered. The genetic method has worked its way into all the sciences of life and mind. Here

Darwin, Wallace, Beneke, Romanes, Ribot are names to be cited. Under certain of its aspects, as contrasted with analytic or structural science, this is called "functional" psychology.

The development of recent psychology has resulted, finally, in the growth of certain sub-divisions, each having its own subject-matter, and each adopting the most available method. So "physiological," "social," "comparative," "experimental" and other "psychologies" have arisen. Each has to-day its apostles and its group of enthusiastic workers.

The headings of our treatment of the second period in modern psychology, therefore, will be as follows in the table, which forms the second part of a larger one, the first part having been given just above.

(*Modern Psychology*)—

II. Empirical and Positive Psychology.

A. As to Theory { Empirical. / Positive.

B. As to Method { Descriptive. / Constructive (structural). / Genetic (functional).

C. As to Subject-matter { Physiological, Social, Experimental, Comparative, etc.

II. *The New Departures: The Empirical Method.* —The coming of a new method[1] had its early prophets

[1] Apart from method—which was the main thing for science—certain events and influences made the period truly remarkable. The discovery of America, the revival of letters in Italy, the German Reformation, all illustrated the new spirit of vigour and enterprise. The mystical thought of Bruno and Campanella faced forward toward the universal doubt of Descartes, rather than backward toward the universal authority of the Church.

even among the scholastics; as in Roger Bacon (died 1294) and William of Occam (died 1349), who with Duns Scotus and John of Salisbury investigated knowledge empirically. On the side of physical science, the Copernican theory, through the work of the astronomers Kepler and Galileo, became revolutionary and far-reaching for science in general. In Kepler, the theory of physical action took on a more mechanical and quantitative character. Many analogies drawn from the old animistic conception of nature were banished. Movements of attraction and repulsion were accounted for on mechanical principles.[1] Newton's demonstration of universal gravitation was alone needed to vindicate the conception of natural law; and mechanical analogies began to creep into psychology in the form of attraction, repulsion, and interference—full mechanical interplay, in fact—among ideas.

The names of Vives and Francis Bacon are of especial note in the Renaissance period.

Ludovicus Vives (1492–1540) proclaimed the independence of mental phenomena, considered as the matter of psychology, and protested against the metaphysical point of view, with its empty discussions of the essence of the soul. He was also an early investigator of the laws of association of ideas.

Francis Bacon (Lord Verulam, 1561–1626) is usually called the father of empirical scientific method. His work consisted in an attempt at restoring knowledge to the path of fact and to the service of utility.[2] He

[1] Kepler made interesting contributions to the physiological psychology of vision, establishing the colour changes of after-images and the fact of the formation of the visual image on the retina.

[2] See R. Adamson's citation of passages showing Bacon's insistence on the utilitarian or pragmatic function and value of

led a revolt against formalism of view and prejudice of temper. He pointed out the various hindrances (idola [1]) under which the pursuit of truth is prone to labour. He attempted to classify the sciences,[2] to limit and define philosophy, and to formulate a sound experimental method whereby the sum of knowledge might be augmented. This programme was of service, of course, to all the sciences alike, mental as well as physical. It proved most difficult of realisation, however, in psychology and the moral sciences.

The Renewal of Mysticism.—After an interval of two and a half centuries, the tradition of mystic illumination renewed itself in Italy and Germany. A group of mystic thinkers in whom the romanticism of the Renaissance shows itself is composed of Paracelsus (1493–1541), Telesius (1508–1588), Campanella (1568–1639), Giordano Bruno (1548–1600) and others, principally Italians.[3] These men show a breaking up of classical theories into *disjecta membra*, and (as seen in Telesius particularly) the bizarre rearrangement of the fragments, mingled with detached original *aperçus*. A valuable departure was made, however, in the view of the imagination which runs through their writings. The imagination (*imaginatio*) is looked upon as, in various ways, mediating between sensation and reason;

knowledge, in the article "Bacon," *Encyclopædia Britannica*, 10th edition. The object of knowledge to Bacon is the control of nature by man (*imperium hominis*).

[1] *Novum Organum*, Part I, English edition, with Notes and Introduction by Fowler (2nd ed., 1889).

[2] Bacon's classification is based upon the analysis of the faculties of knowledge into memory, imagination, and reason, which underlie respectively history, poetry, and philosophy with science.

[3] A sympathetic recent work is by R. Steiner, *The Mystics of the Renaissance*, Eng. trans. (1912).

it completes the detached data of sense, building them up into ideas, and offers preliminary schemata or ideal constructions to the reason. This is an anticipation—and on the whole a clearer statement—of Kant's view of the "schematising imagination"; it also suggests the very modern doctrine of the assumptive and experimental function of the imagination, with the application of that view in the analysis of the "semblant" products of play and art.

It is interesting that this should have been hit upon by writers of a mystic cast of thought. It constitutes an important step in the development of mysticism out of the status of emotion and sentiment into that of a rational constructive theory. If the imagination accomplishes in its normal working the results formerly attributed to emotional intuition and ecstasy, then this type of apprehension may be put down as one of the recognised functions of cognition. This means that the psychology of the imagination takes its place among the larger problems of the theory of knowledge.

In *Jacob Boehme* (1575–1624), the full dualism of the pre-Cartesian era is as urgent for expression as in Descartes; and the antithesis between the two is very interesting. The one, the Academic philosopher and acute mathematician, argued from the standpoint of universal doubt and made the fewest, only the necessary, assumptions. The other, a plain workman, seeing by intuition and speaking by "revelation," made known the mysteries of faith.

Boehme reverses the method of that other great mystic, Plotinus, who proceeded to transcend all dualism in the abstraction of the impersonal and absolute One. Boehme finds that only by dualising itself in subject and object could the divine principle become

self-conscious spirit and be apprehended as such. Opposition, limitation, and reconciliation are necessary for the manifestation of the attributes of reason, will, and love. God is self-generated, through opposition arising in his own nature. Knowledge and self-consciousness are possible only through opposition and duality.[1]

In regard to both these relations—Boehme's relations to Descartes and Plotinus (and similarly to Spinoza)—the following passage may be quoted from Schwegler[2]: "Compared with Descartes, Bochme has at least more profoundly apprehended the conception of self-consciousness and the relation of the finite to God. But his historical position in other respects is far too isolated and exceptional, and his mode of statement far too impure, to warrant us in incorporating him anywhere in a series of systems developed continuously and in a genetic connection." We must take exception, however, to the last statement made in this citation; for though isolated in fact, still Boehme was not isolated as to the "genetic connection" of thought understood in a sense larger than that defined by the term "systems." The clear light of the dualism of subject and object, kindled by meditation on Christian truth, illuminates his page through the lens of mystic intuition; just as the same light, kindled by philosophical reflection, falls upon the page of Descartes through the lenses of reason and doubt.[3]

[1] See the elaborate study, "Boehme," in Boutroux' *Historical Studies in Philosophy*, Eng. trans. (1912).

[2] Schwegler, *History of Philosophy in Epitome*, Eng. trans. (1886), p. 99.

[3] In the Christian mystics, the direct result of the profound realisation of sin and redemption, as set forth in the Christian theology, is a sharpened distinction between the divine Person

In the dialectical process of the self-generation of God, a process of progressive oppositions and reconciliations, Boehme supplied the main motive to the subsequent logical idealism of German philosophy.[1]

The Individual Analogy.—The course of spontaneous philosophical reflection has been seen to present striking analogies with that of the individual. We have seen that they both proceed upon the same lines up to the full dualism of mind and body which precedes the function of reflection upon that dualism itself. We are now in the presence of the transition in racial thought from the spontaneous to the reflective type; and we cannot better understand its factors than by making brief comparison again with the similar transition in the individual, referring to the chapter on this subject (Chapter VII, Vol. II) for further details.

The individual becomes logical or reflective when he becomes aware that the material of his experience is not at once and immediately available in the form in which he takes it to be real—as, body, soul, truth, etc.—but that he has to work by means of his consciousness, by the instrumentality of his memories, ideas, and concepts. He judges of his experience, criticises his images, selects from appearances, rejects phantasms and illusions; in short, he *interprets* the data presented in his consciousness, and thus establishes results that he finds fit to be trusted and acted upon. This is reflection. The entire body of life's

and the human self. Self-debasement, laceration of spirit, adoration and praise, take the place of the personal absorption and union with God of Greek mysticism.

[1] On this account he was called—as we are told by the arch "dialectician" of the entire movement, Hegel—the "Philosophus Teutonicus."

events, all the happenings of every kind, are set up in the mind; the objective facts are, as we say, "mediated" by ideas. The subjective point of view asserts itself; and it is only by taking account of it and working through it that mind and body are confirmed and interpreted.

This interpretation is in all cases conditioned by the dualism already established by spontaneous experience. The individual's ideas come to him bearing the marks or co-efficients of their origin in the realms of matter and mind respectively. His further task is confined to affirming, denying, criticising these two forms of existence—so far as the contents in mind are not altogether fugitive and meaningless.

In doing this, further, he finds two available methods; there are two sorts of mediation effected by ideas. Ideas serve as instruments to secure voluntary ends (the thought of a danger, for example, leads to safety in flight); this is the mediation of the good or of value. But ideas serve also to mediate facts or the true (my idea of a locality enables me to go to that locality or to make true inferences regarding it). In these ways, the idea mediates both the actually good, which is an end for the self, and the actually true, which is a system of things apart from the self. The terms mediated, therefore, are the self and the not-self: the thinking self and the object of thought. This is the dualism established by reflection. It results from the interpretation of experience, found to be subjective, in terms of the dualism of mind and body.

Further, the individual has another course open to him by the use of his imagination; by this he idealises experience in the manner described more fully below.[1]

[1] Chapter VIII, Vol II.

He indulges in hypotheses, postulates ideals of value and truth, erects absolutes of beauty, personality, etc., and by these explains, in some further term of unity, the dual actualities of thought and things. He then leaves the realm of the actual, and becomes in some sense an "idealist," possibly a "mystic."

It is clear, then, that to the individual, if he is of the sort to think upon the problems of life and mind, certain alternatives are open. (1) He may remain simply a dualist, the self and the world being equally real and ultimate; or (2) he may accept as valid the reference of ideas to things, the mediation of facts and truths; and build up a scientific view of the world that is naturalistic and materialistic. The other sort of mediation, that of the good or the self, is neglected or denied. Or again, (3) he may accept the mediation of the good, establishing the reality of the self, but finding that it in turn subordinates or abolishes the other term, the world of things. Again, (4) he may not stop with such a result of actuality or fact of either sort; but go on to reach an imaginative ideal, either in terms of intelligence, giving finality to ideas as such, or of will, giving finality to ends as such. He then becomes either an intellectualist or a voluntarist. Or yet again, (5) he may make appeal to some more inclusive mode of reality, not exhausted by these two sorts, but including and reconciling them: the ideal Good, the Beautiful, God as absolute principle.

It will have become clear to the reader that these alternatives re-state the main directions of modern philosophy; and that under one or other of its headings each of the great currents of thought may be set down. We now see that these are likewise the alternatives open to individual reflection. If one ask one's casual ac-

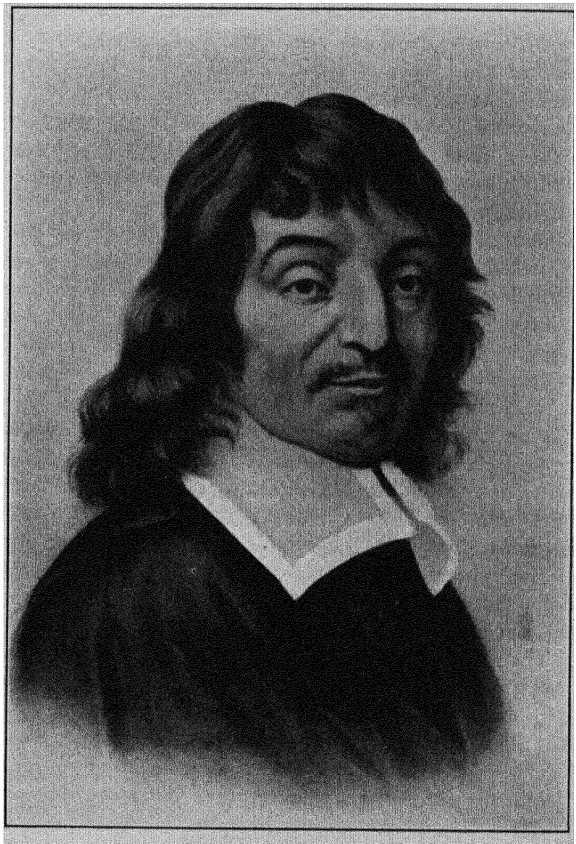
quaintances for their views of the nature of the world, one will find among them some common-sense dualists, some scientific positivists and materialists, some idealists either intellectualistic or voluntaristic, and some mystics, full of ideals of faith and beauty, but unlike all the rest unable to tell just why. Each is a potential member of an honourable historical school; each is, in fact, a spiritual brother of some one of the company of prophets—Democritus, Plato, Aristotle, St. Augustine, Plotinus—by whom the great alternatives of modern speculation were first thought out in simpler form.

CHAPTER VIII.

Philosophical Psychology—Dualism, Rationalism, Dogmatism.

I. *Descartes* (1596–1650.)—It has already been intimated that René Descartes stands at the portal of the temple of modern philosophy and psychology. It is not by reason of absolute originality of view that he holds this position, but by reason of the explicit statement he gave to views, and the new synthesis he gave to thoughts, which had been stated before him only partially and in relative detachment. The essential advances which Descartes represents—apart from the question of method—are two, both of which we have had reason to refer to already.

In the first place, Descartes stands for the most explicit and uncompromising dualism between mind and matter. His position is not only clearly stated, but defended in detail. He distinguishes mind and body as two substances separate and incompatible. They have different properties, each its own specific characters or marks. The essence of body, he says, is "extension"; and the essence of mind is "thought." These two substances are known in different ways; they form the subject-matter of different scientific interests; they are investigated by different methods. The method of the physical sciences is mathematics. Here Descartes, as the philosopher, opened up a new vista to modern



RENÉ DESCARTES.

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thought.[1] The method of psychology, the science of mind, on the contrary, is introspection, inner observation of the events of consciousness. It is in this last point that we come upon a second position by which Descartes gave a large measure of justification to modern psychology.

This second position is summed up in the famous Cartesian motto, "I think, therefore I am." In this sentence, the criterion of mind, as Descartes conceived it, which was also its specific character, was given formal statement. Mind differs from body by its consciousness of its own thinking process; and in this it finds the immediate evidence of its existence as a peculiar mode of reality. The formal mode of statement should not obscure the essential import. It is not an argument, properly speaking, for the thinker himself; it is such only to the outsider. To consciousness, to the thinker himself that is, it means, "I am here thinking," "I catch myself having thoughts," *cogitans, sum.* To the outside observer it means that by its thinking the mind knows itself to be different from matter, which is extended, and to be a sort of existence or reality *sui generis.*[2]

The significance of both these elements of Cartesianism appears from the preceding history. They were both equally inevitable and both at the time equally mature. The final culmination of the mind-body dualism was prophesied in the first suggestion of the distinction made by Empedocles and Anaxagoras, and

[1] Descartes founded the branch of mathematics known as Analytic Geometry.

[2] It is by a resort to "universal doubt" that Descartes establishes this; the only thing to which effective doubt cannot attach is self-consciousness, since to doubt this is to question the very process of thought in which doubting itself consists. The "I am" is necessary for the "I doubt."

developed through all the vicissitudes of Greek and Mediæval philosophy. So plain is this that we have been justified in describing the progress of philosophy so far as the genetic history of dualism. Moreover, it is matched, in its main stages, by the similar history of the individual's thought. The individual grows to know the "self" as a principle different from body. In both alike, the issue in a hard-and-fast substantive dualism seems inevitable: there is an extended body, existing over against a conscious spirit or mind. The dogmatic spiritualism of the Church fathers receives now the authorisation of speculative thought.

The point of novelty in the Cartesian statement consists in this, that the dualism becomes an ontological one; it does not remain merely logical, religious, practical, but becomes metaphysical—a formula of reality, the presupposition of future science and philosophy. So definite is this that the interest after Descartes consisted no longer in pointing to evidence of the disparate nature of mind and body, but of finding a method of accounting for their seeming relation and interaction. The dominant problem of the thinkers immediately following Descartes was the psychophysical one: how could the two heterogeneous substances, mind and body, *sustain any relation at all to each other?*

The second position, embodied in the saying, *cogito, ergo sum*, is also the issue of a long travail. Rising in the relative isolation of the subjective point of view by the Sophists and Socrates, the current of subjectivism gathered force in Platonism, Mysticism, and Stoicism, and finally became fully aware of itself in St. Augustine, who might have said in form, as we have before remarked, "I will, therefore I am; *volens sum.*"

This current had to rid itself of the jetsam of Aristotelianism which obscured the subjective in the vital, and of the flotsam of both Platonism and Sensationalism, which equally, though in different senses, deprived it of its true meaning. But the inner point of view constantly gained in clearness, and finally defined itself in essential terms: the point of view of consciousness as essential mark of mind and starting-point or presupposition of reflection. The problem of self-consciousness as such arises.[1]

These are the issues of Cartesianism. The substance mind differs generically from the substance body; and the specific proof of this difference is seen in the opposition between the extended thing and the thinking self. And the thinking mind knows itself and sets itself over against all the objects of its thought.

Of Descartes' more detailed and special theories, that of "animal automatism" is the most significant. He rejected altogether the conception of an animal or vegetable soul different from the rational; and held that the organism was governed by the same physical and mathematical laws as other bodies in nature. The unreasoning animals are "automata," living machines. Man alone has the power of directing his movements.

For the "image" theory of sense perception, Descartes substituted a mathematical conception finding the sense-stimulus in "vibratory" rays or undulations (light, air, etc.), expressed in mathematical formulas. These produce effects in the organism which are in no sense "like" the object perceived.

[1] "In the intellectual life of Greece . . . the complete severance of spirit and nature had not yet arrived: the subject had not yet reflected upon itself. . . . The turning of self-consciousness upon itself, which was the standpoint of the post-Aristotelian speculations, forms in Descartes the starting-point of a new philosophy."—Schwegler, *Hist. of Philos. in Epit.*, pp. 184-185.

In his doctrine of emotion, Descartes comes to the verge of a psycho-physical theory, in spite of the difficulty of conceiving any interaction between the two disparate substances. He held that the heart, actuated by heat, due to its own processes of combustion, produces "animal spirits" or fluids (*spiritus animales*). These circulate through the body and affect the seat of the soul (the pineal gland in the brain). This results in sensations, perceptions, and emotions. The entire life of perception and feeling has this physical basis. Memory is due to the second or subsequent passage of the animal spirits reviving the spores or *residua* of their earlier action.

Thinking has its clear and evident principles, innate ideas—extension, number, duration, existence, etc.—given to the soul much as the immediate knowledge of the self is given to it. These are in contrast with the obscure and confused perceptions of sense. In this theory, the problems of the criteria of immediate certainty—"clearness and distinctness," according to Descartes—and of the existence of "innate ideas" were brought into philosophy, to be bones of contention, the latter problem especially, to thinkers from Locke to Kant.

Under the term "thought," Descartes included all the operations of mind. He distinguished, however, between "passions" and "actions," [1] passive and active operations of mind. He called them "*perceptions*" and "*volontés*." The intelligence, no less than the feelings, considered as caused by the action of objects, come under the heading of "passions."

The idea of God must be true, since no object save God could cause an idea of the infinite and perfect.

[1] Descartes, *Les Passions de l'âme.*

Further, God is the guarantee of the validity of the clear and distinct ideas generally, since we cannot suppose he would deceive us. Thus the certainty of the object of knowledge rests upon the certainty of the existence of God.

In all the details, we find the tendency to clarify the conception of soul, by restricting its presence to those purer and more intellectual processes in which dependence upon physical states is not in evidence. This results in the passing over of the lower functions—sensation, feeling, movement—to the spatial and physical. Thus the dualism is sharpened between the one substance which thinks, and the other which is extended.

II. *Occasionalism* and *Pre-established Harmony.*—The immediate result of the dualism of Descartes was to give further emphasis to the embarrassing psycho-physical relation. So urgent did the question of mind and body become that its answer was the burden of all the subsequent thought of the school.

In Occasionalism, the next step was taken. Geulincx and Malebranche distinguished between a "cause" and an "occasion." A cause is a real source of action, producing an effect which without it would not have been produced. An occasion, on the contrary, is merely the more or less accidental circumstance under which the true cause acts, or by which it is interfered with or prevented from acting. For example, the pulling of the trigger of a gun is the occasion of the expulsion of the ball; the cause is the explosion of the powder.

Applying this distinction, the "occasionalists" said that the mind acted as occasion of the movements of the body, not as their true cause. Being disparate in

character, will and body could not act causally upon each other. But the will could serve as occasion for the true cause, the action of God. Both sensation, which seems to be caused by the external object, and movement, which seems to be caused by the mind, are in reality caused by God.

This occasional relation of mind to body served the human purpose of volition, but at the same time did not impair the divine truthfulness as embodied in the two clear and distinct ideas.

This view is represented to-day, in kind, in the theories which hold that while the mind cannot alter the energy of the brain in quantity, it can direct the discharge of this energy in one nervous course rather than another.

The superficiality of such a conception prevented its being more than a stepping-stone to the radical doctrine of "pre-established harmony." One may avail oneself directly of Descartes' suggestion as to the original effective act of God, rather than distribute the divine influence through a series of special acts. It is part of the original act of causation, one may say, that all possible cases of apparent interaction of matter and mind have been provided for. Whenever such a case appears, presenting concomitant changes in both mind and body, it is due to a "harmony" arranged for, pre-arranged, "pre-established," in the creation of each. Each changes because it is so made, not because the other changes. Each would change if, lacking such complete harmony, the other did not. It is inexorably arranged that my arm should move whenever my will exercises itself, and seems to move it, just as it is inevitable that two clocks, each regulated by the divine harmony of the spheres, should strike at the same

instant, and seem to influence each other to do so. The two series of events, mental and physical, therefore, are quite independent of each other. There is no interaction whatever. The conditions under which Leibnitz developed this view further are noticed on another page below.

These doctrines, it is clear, did not affect psychology much beyond fixing the Cartesian points of view. Automatism is extended in theory to the human organism. The body moves independently of mind by a divine decree, which acts on occasion of a volition or which establishes once for all its harmony with volition. In either case, there is the explicit assumption of the act of God—a metaphysical principle, a *deus ex machina*, serving as first cause and prime mover of mind and body alike. This leads to a new dogmatism of method and a new absolutism of result in the schools of Wolff and Spinoza, which obscured the Cartesian light of immediate self-consciousness. The gulf was thus widened between the rationalist schools of the Continent and the empirical school in England.

In *Malebranche* (1638–1715), however, we find the development of the doctrine of occasional causes into a general idealistic theory of knowledge. The soul, says he, cannot know things themselves: things are only the occasion of the rise of ideas in the mind. The true cause of all ideas is God, in whose presence and action the world is perceived. Even the ideas of the perfect and infinite cannot be innate to the soul, for it is finite and imperfect. These ideas—that of God himself—are divinely aroused in the mind on the occasion of the contemplation of the world with attention. Hence the saying of Malebranche, "We see all things in

God." Actions, moreover, acts of will, are volitions of God, since our desire is only their occasional, not their original, cause. The active life, like the intellectual, is lived in God.

In this we find a return to the Platonic "idea," with a commingling of Neo-Platonic mysticism. In so far it abandons the point of view of empirical conscious process, and prepares the way for the theory of the identity of mind and body in the absolute, as announced by Spinoza. Yet in one important point Malebranche was a dualist, not an absolute idealist: he held that the knowledge of the soul through self-consciousness was more superficial than that of the body. We have a profound knowledge, in his view, of space and its properties—the essence of matter; but we know only particular states of mind, not general and universal truths. God, therefore, is rather a postulate of logical and theological value, not a principle capable of unifying the terms of the mind-body dualism.

Malebranche showed himself, indeed, to be a first-rate psychological observer. He investigated vision with notable results; working out a vibration theory of colour differences, a theory of accommodation, an account of visual depth-perception. He was led also into the investigation of sense-illusion by the objection raised to his occasionalist view, to the effect that God often deceived us in these cases.

Spinoza.—In Baruch de Spinoza (1632–77), one of the heroic figures of philosophy, the dualistic theory received its final philosophical statement—final, that is, in the sense that to go beyond the Spinozistic formulation is to merge the two terms in an identity so unifying that their differences disappear altogether.

Spinoza employed a deductive and mathematical

method. His great work, *Ethica*,[1] consists of a series of propositions and demonstrations, with corollaries drawn out in the manner of geometry. In his opinion neutrality and objectivity, no less than mathematical validity, were thus given to the conclusions reached.

Admitting the truth of the distinction between mind and matter, and that of the impossibility of any interaction between them, there is, said Spinoza, one other truth equally indisputable: the changes, relations, and events taking place in them occur in strict correlation: "the order and connection of ideas is the same as the order and connection of things"—*ordo et connexio idearum idem est ordo et connexio.* How is this possible—assuming the truth of the dualism already agreed to?

It is possible, said Spinoza, in formal agreement with Malebranche and Geulincx, only because of the presence of the activity of God in both. But how is this presence to be conceived? Here the thought of Spinoza takes form in a system of absolute formal identity.

God is the only, the one, substance; but being infinite, God must have an infinity of attributes. Nothing conceivable can be denied of him. Of this infinity of attributes, we are able to know only two: thought and extension, mind and matter; but the infinity-less-two attributes must have equal reality. Mind and body, therefore, are equally independent of each other and of all the other attributes, but they are also equally dependent upon the one infinite substance, God.

Whatever takes place in one of the attributes, say a thought in the attribute mind, or a movement in the

[1] *Ethica ordine geometrico demonstrata.* Trans. and introduction by Sir F. Pollock, *Spinoza, his Life and Philosophy*, 2nd ed. 1899

attribute body, must have a corresponding place in each of the other attributes, since it is a modification of the one substance, God. The mode of thought—"mode" is Spinoza's term for any specific determination within an attribute—must have a corresponding spatial mode; and each mode of movement, a corresponding thought mode. Thus the correlation is established. Every event in thought or extension is also an event in extension or thought.

What, then, is this one substance? Only the sum of its attributes: more we cannot say. It cannot be defined by the predicates of thought; for "all definition is negation." [1] To affirm one predicate is to deny its opposite, and nothing can be denied of the infinite substance. To make it mind, would be to deny its attribute matter; and so on for all the unknown attributes. This is the explicit declaration of Spinoza, whose system is refractory to any interpretation in a subjective or idealistic sense.[2]

The formal logical requirement of identity has its proof in the actual existence of the correlated modes in the attributes of thought and extension.

The emphasis is thrown back upon the attributes, upon the realistic and dualistic happenings of the life of thought in the world of extension. Even will and intelligence do not exist in God: they are modes merely in the finite attribute, mind. Spinoza's flight of speculation justifies the existing order, and makes it possible

[1] *Determinatio est negatio*, Epist. 50.

[2] This is in opposition to some commentators, as Pollock, who find a tendency in the attribute thought to "swallow up all the other attributes," based upon Spinoza's Definition 4 of Attribute ("that which intellect perceives concerning substance," cf. also *Epistle* 27). A refutation of this view with citation of texts is to be found in the writer's paper, "The Idealism of Spinoza," *Fragments in Philosophy and Science*, Chap. II.

to pursue the sciences, physiology and psychology, without embarrassment from the problem of interaction. It is a metaphysical anticipation of the forms of truce established in the development of science—the theory of "parallelism," the "double-aspect theory," etc.—which banish the problem of cause as between mental and physical phenomena, and confine attention to the facts in the two domains respectively. While, therefore, Spinoza could not join the Positivist camp—he was one of the arch-metaphysicians in the eye of Comte—still, we may say that in his doctrine of identity the absolute becomes so tenuous, characterless, and harmless that science may entirely ignore it. The *natura naturans* shows itself only in the *natura naturata*, as Spinoza puts it—absolute nature appears only in phenomenal nature.

Spinoza was also a psychologist. He distinguished, in the traditional way, the stages of intellectual apprehension—imagination, intellect, intuition. He found it difficult to carry out a theory of general knowledge and abstract intuition, in the face of his doctrine of concomitant modes of mind and body; since the physical mode must correspond to the object of thought and also to the modification of the self. But this difficulty loses some of its force when we realise that the physiological event accompanying a general idea or the general self need not itself be "general"; it need only be specific. One brain modification may correspond both to the thinker and to the object of his thought.

The active life was to Spinoza the development of a fundamental "will to live," a tendency (*conatus*) toward self-conservation. Immortality was upheld by a curious argument *ad hoc*, in effect this: the personal

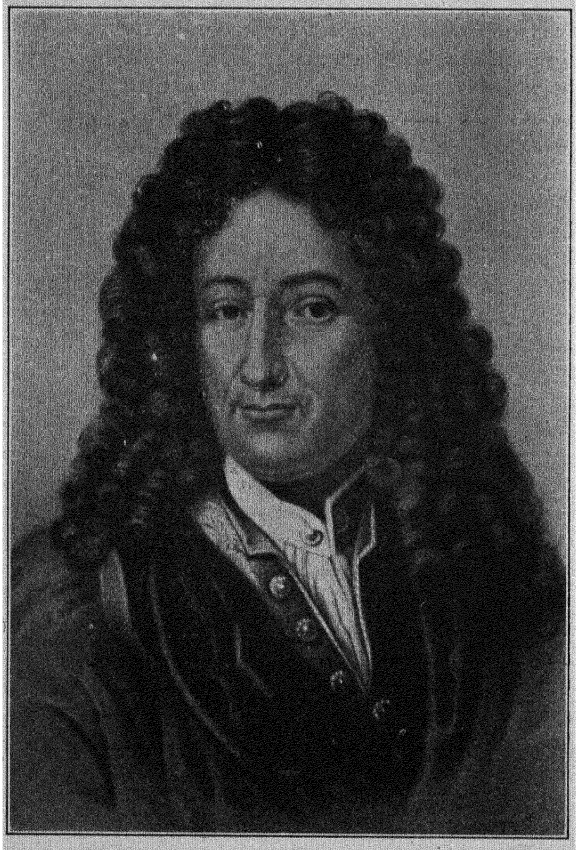
soul is not the highest or true soul by which thought is manifested. There is a higher and purer mode than this, and with it there is associated another mode of body. At death this latter, the truer body, accompanies the immortal soul in accordance with the principle of the concomitance of the modes.

Leibnitz (1646–1716).—As mathematician and philosopher, Leibnitz is classed among the greatest geniuses, by reason of the comprehensiveness of his powers. He has been called the Aristotle of modern times. His views are fundamentally metaphysical, since he starts out from the conception of substance. But in consciousness he finds the character of substance. Mind is the explaining principle of all reality. Leibnitz is at once a monist and a pluralist: a monist so far as qualitative distinctions of substance are concerned; he accepted only one substance, the soul: a pluralist so far as independent centres of existence or reality are concerned; there are many independent souls, irreducible "monads."

It is among these independent monads or soul-atoms,[1] each conscious, that the pre-established harmony of the world shows itself. The body is an aggregate of monads, in essence souls. There is no matter as such: only the spiritual monads exist. These aggregates range from the inorganic, through plants and animals, up to man. In the aggregates higher than the inorganic there is a central monad or soul, which in appearance rules the rest; but the law of the relation is that of pre-established harmony.

The monad or spiritual atom is self-active, never passive. Its essence, as shown in consciousness, is

[1] Leibnitz worked out a systematic theory of the monads calling it "monadology."



GOTTFRIED WILHELM VON LEIBNITZ.

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activity of "presentation," taking form in will and thought. This one activity or mental energy shows itself continuously in all the development of the mind, beginning with the "dark" or unconscious presentations present even in the inorganic world, and ending with the "clear" analytic thought of human reason. In its nature this activity is both distinguishing and relating. The elements unconsciously present in the "dark" presentations of the lower orders of monads, are brought out in the relational form of thought in the higher. And in the development of the individual mind, progress consists in this advance from unconscious complexity to conscious relation. In it all, the specific character of consciousness, and that of all reality, is "unity in variety"—variety of elements in the unity of the one conscious activity. The highest stage involves not only clear relations of elements, but also consciousness of self as the active unity. To this Leibnitz gave the name of "apperception," in contrast to the mere "perception" of the lower stages.

The entire progression from lower and obscure to higher and clear knowledge is native to the soul; it all belongs to its original power of presentation. To the statement of the sensationalists to the effect that there is nothing in reason that was not already present in sense, Leibnitz replies, "except reason itself," *nisi ipse intellectus.*

The synthetic character of Leibnitz's views, thus briefly described, becomes at once apparent. He held to a monism of substance, thus making the harmony of world-activities possible: each of the monads "presents" or reflects all the others; it is a mirror of the world, a "microcosm." But he established a pluralism of individualities, differences among the particular

centres of reality, as it had never been done before. The character of the soul as a unitary energy or activity is not lost either in its qualitative sameness with other souls, or in the differentiation of presentations within its own thought. The fruitful but much overworked principle of modern speculative idealism, "identity in difference," had here its earliest and perhaps its soundest exposition. In this connection, the principle of "sameness of indiscernibles" was formulated and applied: the proposition that without real differences, only abstract identity of apprehension is possible. For perception indistinguishable things are identical.[1]

In the theory of the one activity or energy, spiritual in character, pan-psychism is revived; but in a form that emphasises individuality. A "social" character, so to describe it, is introduced into the structure of the world. The difficulty, indeed, with Leibnitz's pluralism would seem to lie on the side of its insufficient unity. The monads lack essential and immanent bonds of union. Their systems of presentations merely duplicate one another. And the doctrine of God, the supreme monad and cause of the unity of the world, remains obscure. Leibnitz further incorporates in his system the genetic and vitalistic points of view of Aristotle, interpreting life, however, in terms of mind, rather than the reverse. In this connection, his theory of unconscious presentations, *petites perceptions*, which have the power of developing into conscious cognitions, is based upon sound observation. Certain of his special

[1] The correlated principle of "difference of discernibles" is equally true: one thing becomes two or many when differences of appearance prevent its identification (see the writer's *Thought and Things*, Vol. II, Chap. XIV, § 8).

arguments, however, drawn from the composition of colours, sleep, and the summation of infinitesimally small stimulations, are of very unequal value. They are all used, in varying forms, and variously criticised in later literature of the "unconscious." It was in Leibnitz, as Harms remarks, that the series of explanations of the clear by the obscure, the positive by the negative, the conscious by the unconscious began. It reached its culmination in Schopenhauer and Hartmann, and remains the resort of many pseudo-explanations—from crime to genius; from art and invention to hysteria; from sexual manifestations to religion—in the psychology of to-day. By making consciousness unconscious, whenever other explanations fail, of course one enlarges one's resources.

Finally, it is to be noted that the form given by Leibnitz to the postulate of self-consciousness—making it active in its very nature—asserts a positive spiritualism as over against the passivism found in the empirical psychology of the British school.[1] The mind is *not* a *tabula rasa*, a blank tablet, receiving impressions from outside itself; it is, on the contrary, the *fons et origo* of all action. The will is the principle by which the flow of presentations in consciousness takes its determined course; it is the dynamic aspect of mind.

In short, we find in Leibnitz's psychology a synthesis of elements drawn from Aristotle, the Stoics, and St. Augustine; the whole recast in the form made possible by the development of the dualistic motives in and after Descartes. It has left an indelible mark upon

[1] The title of Leibnitz's *New Essays on the Human Understanding* (*Nouveaux essais sur l'entendement humain*) has reference to that of Locke's *Essay concerning Human Understanding*.

modern thought. In view of its metaphysical point of departure, and its explanation of the world in terms of mind, we may consider it as the culmination of the rationalism of Descartes and Spinoza. With reference to later developments, we may note that it lacks the radical distinction between intellect and will which marked and differentiated the systems of subsequent idealistic thought.

Dogmatism.—Christian Wolff (died 1754) defined the doctrines of Leibnitz, each for itself, in such a way that they lost their relation to the system as a whole. They became a series of dogmatic statements. His method, moreover, was ultra-logical, proceeding by definition and distinction. The "monad" became the "atom" again. The power of "presentation" was restricted to the mental or conscious atoms. Pre-established harmony took the form of an order established once for all by the act of God. There was no possible direct interaction between mind and matter.

The activity of the soul, described as in itself one, takes on, according to Wolff, different directions, appearing in different "faculties," of which the *vis repraesentativa*, or "logical faculty," is fundamental. The active faculty or will is due to the same fundamental movement. The faculty of imagination, belonging to knowledge in general, produces representations connected by the law of association in the form of statement that a partial reproduction revives the whole of which it was formerly a part.[1]

Wolff distinguishes memory, poetic fancy, etc.—faculties arranged in order and treated with much psychological insight. The emotions are mixtures of

[1] This anticipates the "Law of Redintegration" formulated by Sir William Hamilton.

pleasure and pain, which reflect respectively the relative clearness or obscurity with which unity in variety appears in the mental life.

Although dogmatic and unoriginal in his philosophy, Wolff undoubtedly aided the progress of psychology; principally, however, by sharpening its problems. The suggestion of "faculties" soon crystallised in the extravagant "faculty psychology" which cut the mind up into water-tight compartments, each doing its peculiar work in independence of the others.[1]

The distinction made by Wolff between a "rational" or philosophical, and an "empirical" or observational, psychology was in line with a later division of problems and interests; but his books on these two sorts of psychology[2] illustrate the difficulty of carrying out the distinction from his point of view. To him "rational psychology" was a deductive metaphysical discipline, over against the inductive and empirical science. The former should rather have been called the "psychology of rationalism." His distinction between the two is not that which modern psychology recognises in differentiating between the observational problem with which science begins, on the one hand, and the explanatory problem, on the other hand, with which she concludes. This latter distinction was developing in a sounder way in the work of the British Empiricists.

The movement traced in this chapter—from Descartes to Wolff—shows the development of one of the great motives of reflection: that which exhibits, in

[1] An historical review of the doctrine of "faculties" is given by Klemm, *loc. cit.*, pp. 44–70; and in Dessoir, *loc. cit.*, is to be found a section on the "German Faculty Psychology following Wolff."

[2] *Empirische Psychologie* and *Rationelle Psychologie.*

philosophical and reasoned form, a rational solution of the problem presented by the sharp Cartesian dualism of mind and body. In the different theories, having this motive in common, the alternatives re-occur which came forward, in less reflective form, in Greek and Mediæval thought. In succession we see bare and barren dualism in Descartes, "creationism" in Malebranche, "absolute idealism" and "identity" in Spinoza, psychic "atomism" and "pan-psychism" in Leibnitz. They all employ the postulate of rational certainty as attaching to knowledge, and follow a deductive method. They all identify the rational principle with God. It will be profitable, before going further, to make these points a little clearer.

The dualism of Descartes was more "bare and barren" than that reached at any time by the Greeks, because it was more conscious and uncompromising. The last ambiguity of matter, as well as the last embarrassment of mind, was removed; the divorce of interests was complete. The extent of the damage suffered by psychology is seen in the automaton theory by which all possible vital connections between soul and body were denied. The theory of naturalism was extended, it is true, but entirely in the sense of enlarging the sphere of the physical. The psychical, beyond being defined as "thought," was placed more than ever beyond the reach of positive method.

The solution offered by any sort of creationism, as in the Church Fathers and Malebranche, only made the issue more obscure by setting a term to investigation. To say "the world is made of nothing" simply means that God is its cause in every sense, material and formal alike. The tendency then becomes—as it showed itself in the Greeks—to make of "nothing" a

sort of negative "something" upon which God could act and out of which the world could take form. The "non-being" of the Greeks became a negative something against which the positive divine impulse asserted itself. This was developed in the post-Kantian idealism on lines laid down by Böhme.

The new departures found in Spinoza and Leibnitz show an interesting contrast. The one "cuts under" the dualism of thought and extension, leaving its superficies intact, just as we put a cellar under a house! God is the unifying principle, the foundation-stone on which both pillars of this structure of reality rest. Our separation of the parts, the attributes, obscures our vision of the whole, the substance. There is but one substance.

To Leibnitz this division of reality into two substances is equally superficial; but his way of surmounting it is the very opposite to that of Spinoza. He reaches one substance, but makes it pluralistic, atomistic, in its properties. Instead of an infinite attribute we find an infinitely small soul-monad. And by cutting up the substance thought into an infinite number of bits, the substance extension is made to disappear.

For psychology the main thing was the continued importance attached to intellect, reason; this part of Cartesianism was not outgrown. Reason was the thing to account for and reason was the instrument by which to account for it.

Empiricism.—Another great current of thought was gathering force across the Channel; moving in a direction opposed to "Rationalism," and known as "Empiricism."

In Gassendi and Hobbes the empirical tendencies of

the Pre-Cartesians, Vives and Roger Bacon, focused themselves. As in Descartes a series of rationalistic theories took their rise, so in Gassendi and Hobbes—who directly opposed Descartes personally—the naturalistic and materialistic series began. The dualistic-idealistic philosophy was opposed by the monistic-sensationalistic. *Gassendi* (1592–1655) developed the atomism of Epicurus, but admitted the possibility of a sort of soul-molecule in the primitive matter. He also made reason the function of a special immaterial soul created, as the atoms were, by God.

It was by *Hobbes* (1588–1679) that the two fundamental positions of Cartesianism were alike assailed: the substance view of mind and the rational theory of the origin of knowledge. Mind, said Hobbes, is a function of body, and reason is a product of sensation. The world is made up of matter in motion under mathematical laws; and consciousness is one of the aspects or characters of the living organism. There is, then, no separate substantive soul or spirit as the dualists declare.

Further, sensation is the one conscious event, and upon it knowledge is founded. Sensation is based upon physiological processes, stirred up by external stimulation. Hobbes describes these organic processes, making the heart the centre.

By the compounding of sensations—the process so greatly developed by later sensationalists and associationists—all the modes of intelligence are produced. With sensation goes an original form of impulse—identified with the preservation of life—and also feelings of pleasure and pain. These, like the sensations, are compounded under the laws of association. The whole results in a conception thoroughly naturalistic

and mechanical in spirit, but its carrying out is inadequate and sketchy. It served as programme, however, for the later more deailed attacks upon rationalism, which carried the warfare into the special fields of innate ideas and the theory of knowledge.

The verve of Hobbes' philosophy was directed toward political theory; and in this he established the bond between sensationalism and political individualism, which remained vital and persistent during the development of eighteenth-century British thought.[1]

[1] This showed itself in the union of philosophy and "civil polity" in the chairs of instruction in the universities. In T. H. Green at Oxford, and H. Sidgwick at Cambridge, in the last quarter of the nineteenth century, the two interests still showed themselves closely united.

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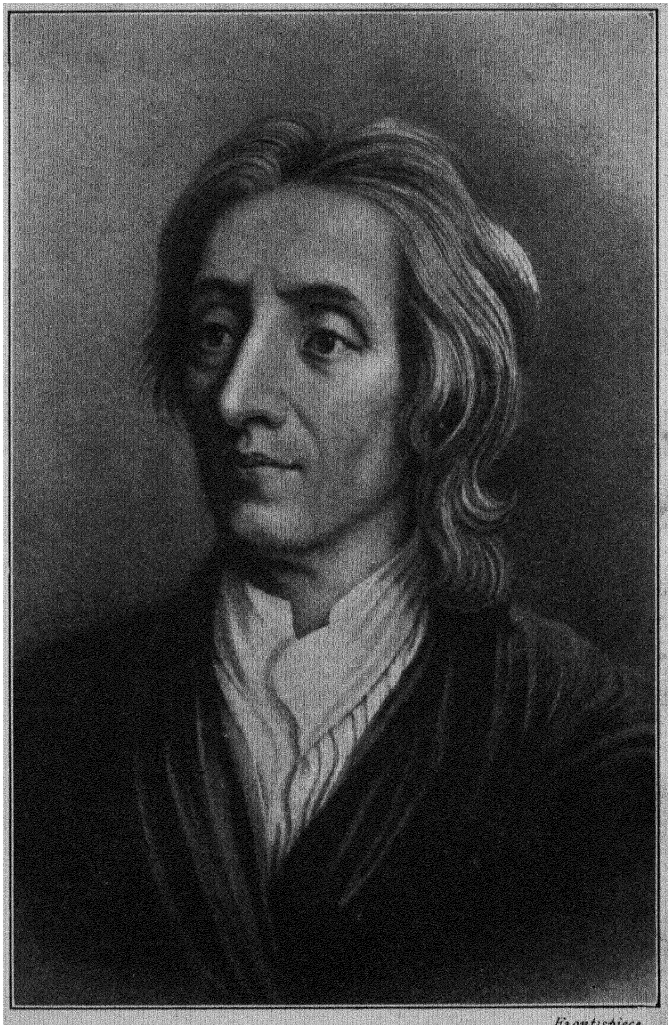

Frontispiece.

JOHN LOCKE.

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HISTORY OF PSYCHOLOGY

A SKETCH AND AN INTERPRETATION

BY

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MODERN PSYCHOLOGY. FIRST PERIOD, TO THE NINETEENTH CENTURY

CHAPTER I.

Early Empiricism, Naturalism, Materialism.

Psychology as Empirical Theory of Knowledge.— In *John Locke* (1632–1704) the full empirical point of view revealed itself. Locke limits the problem to the events of the inner life; and uses the method of observation and induction. He attempts to treat of the actual sources of knowledge by a scientific method, as proposed by Francis Bacon.[1]

Moreover, he transferred the problem of the origin of knowledge, of all knowledge, from metaphysics to fact; from theories of divine illumination, pre-established harmony, and innate ideas, to hypotheses based on children, animals, and primitive men. Passing from this examination of actual knowledge, he proceeds to the more critical and epistemological questions of its validity and applications.

Pursuing what he describes as this "sober method of investigating the origin and connection of our ideas," Locke distinguishes between "simple" and "complex ideas." Simple ideas, which are those of immediate

[1] Locke's great work is entitled *An Essay concerning Human Understanding* (1690).

perception, are distinguished as coming either through the "external sense"—and belonging to the external world—or through the "internal sense," and belonging to the inner world of the mind itself. This latter, the sphere of the internal sense, is that of "thought" as defined in the system of Descartes; the external corresponds to the system of nature or "extension."

In this conception of simple, underived, original elements or data of consciousness, the basis is laid for the work of qualitative and analytic psychology, one of the problems of which has remained that of determining these original elements.

In this general position, certain other problems were raised. The mind is conceived of as having certain "powers" native to it. But there is only the one agent or person, who has ideas through the use of all the powers or faculties. These latter are simply its ways of acting. It may be aroused in the way of sensation and perception, in the way of memory, of imagination, of will, etc. This is Locke's refutation of the "faculty psychology" of Scholasticism, afterwards continued by Wolff.

Judged by their internal characters, the simple ideas of the external sense show different marks. They have "primary" and "secondary qualities," both attributed to the external object.[1] The primary qualities are those which reproduce essentially external conditions—extension, resistance, movement, etc. These are the qualities by reason of which the external object is what it is, as independent of perception. The secondary qualities, on the other hand, are those in which the

[1] For a note on the history of the distinction, and of the terms primary and secondary qualities, see Klemm, *loc. cit.*, p. 282, who cites Baumke.

process of perception itself has a part—such as colour, taste, position. In the primary qualities the reality of the "extension" of Descartes is vindicated. In the secondary, the variations arise which produce relativity and illusion.

Locke does not stop, with Hobbes, at a mechanical view of the play of ideas. He finds a further and higher power of the mind: that of "reflecting upon the course of ideas." Beyond ideation there is reflection. Ideas are the "objects of the understanding *when it thinks*."

Reflection is the source of a new series of ideas—general, abstract, universal—which involve relations between and among simpler ideas. Such are the ideas of cause, substance, relation itself. Locke's distinction between sensation and reflection reminds us of that of Leibnitz between perception and apperception; and it is likely that the latter is a revision of the former, for Leibnitz kept Locke's *Essay* constantly in mind.

The ideas of reflection are not innate; there are no innate ideas. This Locke argues with great wealth of inductive proof; but by innate ideas he generally means actual conscious presentations or images. He shows that children lack innate ideas in this sense. This Leibnitz was able to meet by postulating "unconscious presentations," which slumber in obscure form and in the undeveloped psychic modes, but are still essentially innate. The admission by Locke of certain inherent "powers" or functions would seem to leave open the door for the later critical distinction between the *a posteriori* or experiential content, and the *a priori* or native form, in the structure of knowledge.

The motive of Locke is clear, however: it is the

general refutation of rationalism. For to all rationalism it is essential that the reason be not dependent upon purely sensational or empirical data, either in its origin or in its products. Locke's aim was to establish empiricism.

To Locke, further, reflection was largely a passive power; it was reflection *upon* the course or flow of our ideas, not reflection as itself determining this flow or course to be what it is. Reflection is an "inner sense." The actual flow of ideas is due to the laws of association, a term first used, though in a special reference, by Locke. So while the mind reserved the power of thought or reflection, still all other contents, together with the laws of organisation of these contents in complex ideas, were due to sensations and their interaction. As over against rationalism, the programme of a mental mechanics, a pure "presentationism," was suggested in anticipation; and at the hands of Hume and the Associationists, this programme was to be speedily realised.

Locke's *Essay* contains a wealth of sound psychological observation. His analysis of the ideas of reflection, the categories, is the first of its sort: analytic, empirical, psychological. He accepts the certainty of the existence of the mind, immediately given, as Descartes declared. The existence of the external world, on the contrary, was derived; it depended upon the character of "liveliness" attaching to certain sensations.

The active powers, feeling and will, have scant notice. They have not the importance that cognition has in a polemic against rationalism. Pleasure and pain are simple ideas or sensations. Will is an original movement of the mind, an effort motived by

"uneasiness." Both feelings and conations, or efforts, like other simple ideas, are involved in the processes of association.

Locke focused certain problems by means of experiment also. His proof of the relativity of temperature is classical: he pointed out that the two hands feel the same water as of different temperatures when they themselves are. He also demonstrated the limited area or span of consciousness, by showing the inability of the attention to take in more than a certain number of items or units exposed simultaneously to the eye.

Locke's significance for psychology, in sum, resides primarily in the empiricism of his point of view. This made possible an analytical method, as expounders of Locke generally recognise. But it is not so generally remarked that Locke's research was one of origins also. He aimed to show the nature and validity of ideas as dependent upon their origin and development. This is the point of view, in so far, of modern genetic psychology. The analytical empiricism of Locke was taken up and carried forward by his successors; but the genetic factor remained undeveloped until the theory of evolution came to reveal its true value.

Sensationalism and Associationism.—David Hume (1711–1776), the greatest of the Scottish philosophers, developed Locke's position in the two directions in which empiricism still retained rationalistic features.

First, the distinction between sensation and reflection, sense and reason, was abolished; even in the functional form of it that Locke's theory of mental "powers" had retained. Second, a thorough-going "associationism," essentially mechanical in character, took the place of Locke's Cartesian theory of self-

consciousness. The synthetic activity of the mind was replaced by the association of ideas.

Hume entirely denied any effective rôle to mental function or process as such. He distinguished in mental contents two grades, "impressions" and "ideas." But he distinguished among impressions, the first data of experience, "inner" and "outer" impressions. Inner impressions were those of the inner sphere itself, such as pleasures, pains, efforts, etc.; and outer impressions were those received by the senses and having the imprint of externality. All possible materials of knowledge, of experience throughout, arise in impressions; and since the term sensation is commonly used for such first data of knowledge, "sensationalism" became the term applied to the resulting theory of knowledge. Rationalism asserts the originality of reason, and explains away or ignores sensation; sensationalism asserts the originality of sensation, and explains away or derives the reason.

The term "idea" is confined by Hume to the derivatives or revived contents of mind in which impressions reappear. They take on various forms of revival and composition. In general, the "idea" of Hume corresponds to the "complex idea" of Locke, and "impression" to Locke's "simple idea." In the use of the term impression itself, the passivity of the mind, its mere impressiveness, is emphasised. As a *tabula rasa*, it receives or suffers impressions.

Ideas, the contents of imagination, differ from impressions, the contents of sensation, in vividness or intensity. According to Hume the most vivid idea is less so than the least vivid impression. This difference is, therefore, the distinguishing one.

The course of ideas—their flow, connection, composi-

tion—was ruled by the principle of association. In this, a mental principle was substituted for the material inertia of the brain, postulated by Hobbes. It also replaced, as we have already seen, the active principle of thought of Descartes. For the first time, a psychological mode of organisation was suggested to justify a naturalistic view of conscious process. Association came to be recognised by a great school of thinkers as the one principle of mental change and movement, somewhat as attraction was found to be in the domain of the physical.

Hume recognised three cases of association, generalised in laws: the cases of "resemblance," "contiguity" in space and time, and "cause and effect." As compared with Aristotle's classification, this omits "contrast," and includes the new case of "cause and effect." In the tracing out, the detection as it were, of association in the more complex and synthetic products of the mental life—such as the ideas of the self, the external world, etc.—Hume showed his analytical ability and consistency. He was the first, and remains one of the greatest, of those psychological naturalists who have consistently applied a positive method. Association seemed to supply the hint to the process of progressive mental accommodation, as natural selection subsequently supplied the hint to that of organic adaptation. It gave to naturalism a positive weapon, to mental process a positive lawfulness. And it remains the resort of all those psychologists who find in apperception, mental causation, subjective synthesis, etc., the resort to new modes of obscurantism, such as the natural selectionist finds in the newer modifications of vitalism. It was not until the conception of a structural psychology, based upon the analogy of the

mechanical processes of physics, was succeeded by that of a functional and truly genetic psychology, to which mechanism was not the last word, that association was finally assigned a more modest rôle. The "mechanics of ideas" of Herbart and the radical "composition theory" of mind of Spencer were first to have their development, both based upon the principle of association.

Hume worked out, in detail, association theories of the higher ideas or concepts of thought, classed by him under the terms "relations," "modes," and "substances." The "self" became a "bundle" of associated ideas; in this the "presentation" theories were anticipated, which were later on brought into direct opposition to "activity" theories. The belief in reality, both external and internal, is ascribed to the vividness of certain impressions, whose force is transferred to associated ideas or memories; these latter are thus distinguished from mere ideas of fancy. Judgments of reality involve a similar reference to impressions. The grounds of belief in reality are in this way carried back to the characters or coefficients of sense-impressions. The persistent character of external reality—looked upon as having continuing existence apart from perception—is due to the imagination, which connects recurrent impressions in an experience equivalent to that of an identical persistent object.[1] The logical relations, so-called, such as that involved in the universal, are also brought under association. The quality white, for example, is not a logical universal, but an "abstract idea," due to the association by resemblance of many white objects. In this procedure,

[1] Later thinkers fall back upon much the same psychological factors; cf. the writer's *Thought and Things*, Chap. X, Vol. I.

Hume foreshadows the development of what is known as "psychologism" in logic.

In Hume the emphasis continues to rest upon cognition, upon ideas, and upon the theory of knowledge. His interest, like that of Locke, was in the refutation of rationalism. Accordingly, we find scant notice of feeling and will. Hume developed Locke's position that pleasure and pain were simple ideas or impressions —internal in character—subject to the laws of association. The emotions are impressions aroused by ideas, with which they become straitly associated. Acts of will are similar internal impressions aroused by feeling; they are capable of reproduction as ideas, and are subject to association with other ideas.

Much of the reasonableness of Hume's theory arises, however, from a further almost tacit assumption, by which he supplemented the principle of association. He assumes and employs to the utmost the principle of "custom" or "habit." Habit works wonders in his hands—just the wonders that the Lockian "inner sense," the Cartesian "reason," and later on the Kantian "formal categories," worked in turn. By habit, said Hume, the associated impressions and ideas are bound into aggregates and wholes, to which belief and custom attach; and in which the original details of structure and complexity are lost. The complex ideas, thus welded and fused by habit, have the unity and certainty of the "clear and distinct" ideas of reason described by Descartes and Leibnitz, and conceal their origin from impressions and presentations. Things repeatedly and invariably associated together become parts of one whole over which habit overflows, and to which habit gives the sanction of a universal and necessary connection. All necessity attaching to the course

of events, either internal or external, is due to habit. What we are in the habit of finding we take to be true and necessary.

In this Hume struck upon one of the most fertile ideas of modern psychology and philosophy.[1] Its philosophical significance is seen in the development of empirical theories of knowledge and of morals in which the formal element in truth and duty is attributed to the consciousness of habit. Individual habit passed over into the "inherited habit" by which Spencer accounted for the *a priori* "forms" of Kant, and into the "social custom" by which the utilitarian moralists accounted for the imperative of the practical reason.

In this way, rational form, intuition, the innate idea, are accounted for by individual or racial habit, or by the two combined.

Its psychological significance, apart from the theory of knowledge, resides in the suggestion that in habit, considered as a tendency of a functional sort, the inner principle as such is in a sense located; it is to be sought in the active and synthetic side of consciousness. It brings this side of the mental life within the range of observation, and substitutes something actual in consciousness for the postulates of logical and metaphysical theory. The concept of habit has been developed enormously in a group of modern theories of

[1] Of the historians of psychology, Harms alone, I think, speaks of this (Harms, *loc. cit.*, pp. 311 ff.). Dessoir seems completely unaware of this part of Hume's psychology; and Klemm makes no note of it that I can find. In fact, however, the "habit" of Hume supplies a most interesting transition from the "inner sense" of Locke to the purely mechanical processes of Condillac. An acute exposition and criticism of Hume's view is to be found in T. H. Green's *Introduction to the Philosophy of David Hume.*

the "motor" or dynamic type, which account for the whole range of the synthetic function—attention, apperception, interest, generalisation, thought, the self—in terms of the consciousness of movement and activity.[1]

By way of summary we may say that Hume is to be considered, both by reason of his conception and because of his method, one of the prophets of modern psychology. In conception, he held to a naturalism which submitted the mind as a whole—the self as well as its knowledge—to investigation by the same right as other things in nature. In method, he was an experimentalist, a positivist, admitting no intrusions from metaphysics, no dogmatic assumptions. His results were, of course, in a measure personal to him, and as is the case with those of all pioneers, they have been criticised, developed, in part rejected. But in his principles of association and habit, no less than in his sensational theory of knowledge, Hume worked out views which have been and still are of enormous influence.

His psychology is one of those systems whose very radicalness and freedom from ambiguity make them typical and influential not only positively, but also as targets for the practice of riflemen generally. His soberness and homely clarity of style—qualities similar to those of Locke—gave his views universal currency; and it is to the reaction against Hume that the next great departure in rationalism, the Criticism of Kant, was directly due.[2]

[1] All the writers of the "motor" school are not, of course, so radical in their use of the principle. Ribot makes thorough-going use of it; Fouillée and Münsterberg employ it more incidentally. In the present writer's *Mental Development in the Child and the Race* (1st ed., 1895) it was given the wide scope indicated in the text.

[2] More than once has philosophical rationalism found it con-

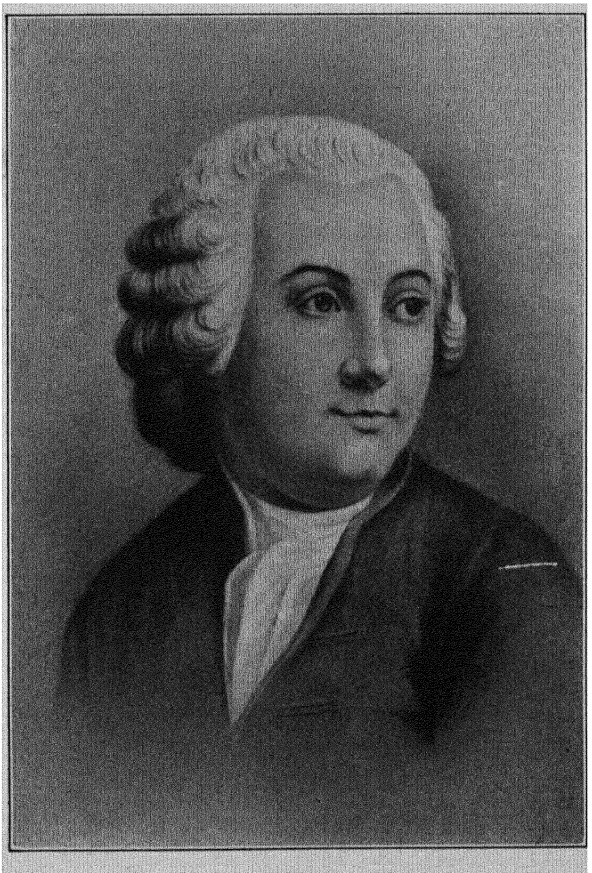
Condillac, Étienne (1715–1780).—In Condillac, the sensationalist theory was transferred to France. In Great Britain, especially in Scotland, a reaction toward spiritualism showed itself, as a protest against the materialistic consequences drawn from the premises of Hume.

Condillac pressed the sensationalistic analysis to its conclusion. He dropped Hume's principle of habit, and with it all effort to preserve mental synthesis as such. Sensations alone, accompanied by feeling, reproduced as ideas, and dominated by association, account for the entire mental life. All the so-called "rational" products of the mind are groupings of sensations, effected by association.

Condillac did not concede the legitimacy either of the supposition of an external world apart from sensation, or of an inner principle as such. These assumptions, said he, come from the needs of our practical life. We act upon a world, *or seem to,* and it is we who so act, or *seem to;* but there is nothing in knowledge to justify either of these assumptions—either the "we" or the "world." By the famous figure of a statue alive, but without experience, Condillac illustrated the development of the entire mental life, through the introduction into the statue merely of the senses and the rules of association.

Condillac has the importance that extremes usually have: that of isolating a view, and freeing it of all ambiguity. He also suggested the new lines of departure to be taken in the movements of phenomenalism and materialism. The first of these appeared when the "primary qualities" of matter—resistance, extension,

venient to "introduce" itself by a criticism of Hume. See T. H. Green's *Introduction to the Philosophy of David Hume.*



ÉTIENNE BONNOT DE CONDILLAC.

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etc.—were reduced to complexes of sensations and ideas, as the self had already been reduced by Hume. The conclusion is that the flow of states within consciousness is all that we really have—mere phenomena, appearances—and that there is no reality behind them. This sort of analysis was also made in England by Berkeley, an elder contemporary of Hume, to whom we are to return.

Further, impulse, and with it will, is the presence in mind of a dominant idea of advantage or pleasure; and attention is the presence in mind of an intense sensation or presentation.[1]

Such phenomenalism, it is clear, reinstated the point of view of the Sophistic dictum, *Homo mensura omnium*, but with the reinforcement that came from the intervening thought of centuries in defining and isolating the subjective point of view. The Sophists were pre-dualistic; the modern phenomenalists, post-dualistic. The Sophists were unable to pass to a clear distinction between mind and body, either by sense or by reason; ideas alone remained to them. The phenomenalist argues away the distinction by consciously denying both the substances mediated by ideas; to them also ideas alone remained. The difference shows itself, moreover, in the greater individualism of modern phenomenalism. The inner life had become that of the private and single self, the area of personal consciousness. Phenomena, thus restricted to the individual, had the greater relativity and the lesser value. One goes on logically to solipsism. As theory of the mental life, it supplied the psychology of agnosticism.

Pure phenomenalism, however, in the form of

[1] Both being positions made use of in the modern "presentational" and Herbartian theories.

solipsism, is rarely held. The tendency is to use this sort of analysis in the interest of a philosophy which denies one sort of reality, in order to reinforce its assertion of the other. In Berkeley, it was mind which profited by the subjective analysis of body; in the materialists, to whom we next turn, it is body which is retained at the expense of mind.

Eighteenth-century Materialism.—Among writers in England, *Hartley* (1704–1757), a contemporary of Hume, and *Priestley* (1733–1804) took the step from sensationalism to materialism; in France, it was taken by Lamettrie, a contemporary of Condillac.

Intelligence, comprising all the faculties of reflection and volition, having been reduced to sensations, and the self to a complex thereof, it was easy to substitute for the impression in the mind its cause in the brain. The brain state, the organic counterpart of the sensation, is part of the physical world; it reflects the physical excitation of the senses. The whole person then, not merely the body; the sensation, not merely the exciting cause, is part of the material system of nature.

It was natural, also, in order to give greater positiveness to the law-abiding character of mental phenomena, to ground the association of ideas in the material connections of the brain. Priestley especially developed the idea that the organisation of mental states reflected that of the brain centres. He explicitly taught the identity of mind and brain. For Hartley and Priestley, the continuity of mind was in principle that of brain processes; ideas as states of memory and imagination were due to the reinstatement of brain states according to this law. Thus the last shade of the distinction between sensation and idea disappeared.

The further development of materialism is mainly of philosophical interest. It was carried forward by Diderot, Holbach, and the French Encyclopædists.[1]

The aspect of their view that is of psychological significance is the supposed parallelism it suggested between mental and physical states, a suggestion developed into what is now known as "psycho-physical parallelism."[2] This principle does not associate itself necessarily with materialism; Spinoza and Leibnitz had already suggested it in their theories of correlated "attributes" and of "harmony." It allowed also of an interpretation of the mind in terms of the aggregation of psychic atoms—"least states" correlated with least physical changes or vibrations—by Diderot, which anticipated a new pan-psychism and a new positivism. Spencer, later on, postulated an "elementary sensation" correlated with an "elementary nervous shock," in much the same sense.[3] Materialists like Holbach went beyond this, teaching the positive identity of mind and body, and the metaphysical existence of matter and motion. In the neat phrasing of Harms, "mechanical physics supplied the metaphysics of materialism" (*loc. cit.*, p. 323).

[1] Baron von Holbach's *Système de la Nature* (1770) is one of the classical statements of Materialism. He postulated qualitatively different atoms, in the sense of chemical elements.

[2] See below, Chapter V, of this volume.

[3] So comparative psychology may assume in low organisms a "nervous analogue" to elementary states of pleasure and pain. See the writer's *Mental Development in the Child and the Race*, 1st ed. (1895).

Chapter II.

Subjective and Critical Idealism—Faith Philosophy.

We have seen, on an earlier page, that the philosophical interpretations taking their rise in the dualism of Descartes might be classed, for psychological purposes, as Dualistic, Naturalistic, Idealistic, and Mystical. We have traced out the history of the first two of these movements: Descartes to Wolff, and Locke to Condillac, respectively. We now turn to the idealistic movement, which arose as a protest against sensationalism. In its early manifestations it retained the intellectualistic character of a philosophy of knowledge; and only later did it take on the two contrasted forms of Intellectualism and Voluntarism.

The development of Intellectualism showed itself in two important figures: George Berkeley, Bishop of Cloyne, and Immanuel Kant, the "Sage of Königsberg."

George Berkeley (1685–1753).—In Berkeley's psychology we find the carrying out of what afterwards became the Humian analytic method, but with a different philosophical motive from that of the sensationalistic followers of Hume. The analysis of external reality into sensations did not mean logically a resort to materialism, although the intervention of the nervous system between the world and the mind suggested that construction. For the term that remains when the analysis is exhaustive is not a material term, nervous or physical, but a mental term, a sensation.

Berkeley demonstrated this. He carried the subjective analysis of the physical thing out to its logical issue. The primary qualities—extension, resistance, etc.—were mental states, no less than the secondary qualities. The external world of perception, he declared, has no separate existence: "To be is to be perceived," *esse est percipi.* This became part of Hume's case. If there be no further factors than those involved in sense perception, then the primacy of the inner realm, the subjectivity of all experience, is demonstrated. Berkeley thus met the materialists.

It was by an analysis of vision that he illustrated this. His *Theory of Vision* is famous. He demonstrated that visual space is relative and subjective. He derived the visual localisation of objects from association with sensations of touch. The eye of the child sees the object as located by the hand, and afterwards assigns the visual stimulation to the location thus established through association. Visual space is thus found to be relative, neither wholly innate nor wholly governed by external space relations.

Berkeley prepared the distinction of Hume between impression and idea by pointing out a variety of points of difference. Besides differing in intensity and liveliness, the idea is not dependent in its duration upon an external stimulus; and, moreover, it is part of an associated context or order of contents.

These points may suffice to show the thorough empiricism, as well as the accuracy, of Berkeley's procedure.

It was his philosophy, however, that spoke the last word. The soul, he said, is a simple active being, revealed to us through experience, but not perceived in any concrete experience. It is a concept drawn from

the mental life, rather than an idea found in the mental life. Nothing exists except spirits; the other existences, whose essence is to be perceived, are maintained by the perception of God, who is the true cause of their appearance to us. When perceiving, mind is reason; when acting, it is will.

We here reach a new spiritualism, making use of the subjective analysis that served also the purposes of materialism. For the one, subjectivism proved the non-existence of a spiritual principle; for the other, that of a material principle. So far as his theistic spiritualism is concerned, Berkeley belongs to the series of philosophers already described as rationalists. Logically he follows Malebranche, combining occasionalism with Leibnitzian monadism. But this should not lead us to misunderstand Berkeley's psychology and theory of knowledge. So far from deducing his psychology from spiritualism, he explains his psychological results by resorting to spiritualism. That is to say we have to see in Berkeley's psychology a legitimate advance in the direction of Hume's sensationalistic analysis.

Criticism: Immanuel Kant (1724–1804).—The principal problem of Kant is well set forth by the word used by him to indicate his method. He instituted a "critique" of the entire outcome of the mind's operations of knowledge (in the *Critique of Pure Reason*), practice (in the *Critique of Practical Reason*), and sentiment (in the *Critique of Æsthetic Judgment*): *reinen Vernunft, praktischen Vernunft,* and *Urteilskraft.* By this criticism he endeavoured to distinguish the universal element contributed by the mind to its experience, from the particular elements which experience offers to the mind. Starting from knowledge and

practice as we find them, he asked: How is experience possible?—what are its factors?—what are the logical conditions on which any experience whatever can arise?

His general result is that there are formal elements in all experience which cannot arise from the combination of mental contents, sensations, and ideas, mechanically combined by association; that is, there are elements which are not in themselves experiential or *a posteriori*. On the contrary, by these forms which are peculiar to thought as such, and *a priori*, the chaotic materials of knowledge are organised and become intelligible, good, and beautiful. All experience, in order to have meaning, must be ordered in certain categories natural to the mind itself; and it is the function of criticism to point out these categories or *a priori* forms severally and in detail. To these forms he applies the term "transcendental," as opposed to the empirical contents, which are "phenomenal."

He investigates sense-perception in the section on "transcendental æsthetic," discovering the forms of space and time, which belong respectively to the "outer sense" and the "inner sense"; and thought, in the "transcendental analytic" and "dialectic," discovering the categories of logical process (*Verstand*) and the transcendental "ideas of the reason" (*Vernunft*), God, freedom, and immortality. Similarly, he finds in the practical life the *a priori* form of duty, the categorical imperative; and in the life of sentiment the norms of æsthetic judgment, which are the forms of appreciation or "taste."

All these transcendental elements of knowledge, action, and appreciation are present in experience, organising the manifold of unordered data into a world of actual phenomenal objects. They do not have any

further application; since "reason without sense is empty, as sense without reason is blind." The supposed real world, the world *an sich*, independent of experience, although postulated by the reason, remains a "thought-world," *noumenal* as opposed to phenomenal, inaccessible, unknown. Thus the ideas of the reason, God, freedom, immortality, remain mere postulates or demands, instruments of organisation, so far as the reason is concerned. The attempt to apply them to a "noumenal" world leads to insoluble contradictions —the "antinomies of the pure reason."

This limitation upon the application of the forms of knowledge applies equally to the inner world, to the self. Knowledge stops with the empirical or phenomenal self; it does not reach the noumenal ego. The *a priori* forms are such only in the structure of knowledge, of which they are the logical conditions; they do not justify the assertion of a substantial self, any more than that of a substantial world.

The process of "transcendental apperception"—Kant's rendering of the synthetic and reflective function, called by Leibnitz "apperception"—does not escape the degradation to phenomenalism, due to its operation upon experiential data. The two sides of experience, the known world and the known self, coalesce in the one organised experience. On the right, but inaccessible, is a postulated real world; on the left, equally inaccessible, is a postulated real self. Knowledge is powerless to reach either the one or the other.

In this conclusion as to the nature and limitations of knowledge, Kant is both a powerful antagonist and a powerful ally of David Hume. His criticism—assuming its validity—refutes the sensational and associational theory of knowledge, simply by reverting, when

all is said, to the "inner sense" of Locke, a native function. But Kant differs from Locke in denying that the inner sense, or the outer either, reaches reality as such. The *a priori* principles of organisation are not causal or ontological grounds of objective construction, but merely its logical conditions. In this he brings logical justification to the agnosticism, present but undeveloped, in the sensationalism of Hume. If Kant had stopped, as Hume did, with the theory of cognition, he would have stood before the world, instead of the latter, as the father of modern agnosticism.

So far as experience itself is concerned, however, the inner sense, a subjective principle of apperception, is reinstated as over against all mechanical explanations of the composition of experience, both inner and outer alike. Here the two idealists, Kant and Berkeley, agree; logical criticism joins hands with psychological subjectivism. And the development of modern idealism in its various forms, proceeding from this point, is made possible. This is the gain, at any rate, accruing to psychology from Kant's criticism of the pure reason.

To the form of the practical reason, the categorical imperative, Kant attributes a different value. In the practical life, the ideas of the reason find their further justification. In the absolute imperative of duty, the postulates of God, freedom, and immortality, are found to be "constitutive," not merely "regulative"; and a world of values is revealed, absolute in character. In this way a sort of moral idealism, a Socratic justification of the true by the good, issues from the Kantian critiques; a justification not in a relative, pragmatic, or utilitarian, but in an absolute sense, since the good is the moral ideal, which with Kant, as with Plato, is

absolute. The soul as a reality is characterised as a free and immortal agent.

The third of the Kantian critiques, the *Critique of Judgment* (meaning judgment of appreciation, æsthetic in character), is less developed than the other two, but in the outcome it adds an important thought. The opposition found to exist between reason and practice does not amount to a theoretical contradiction. Reason is purely logical in its character and phenomenal in its function, while practice, although phenomenal in fact, is absolute in its ideal. How, it may be asked, can the universal ideal of conduct be guaranteed any more than the universal postulate of truth? If the former has application beyond experience, why has not the latter also?

In the *Critique of Judgment*, Kant finds, or at least intimates, a mode of reconciliation of logic and practice, of theoretical and practical reason, in the domain of feeling. Putting the matter in our own terms, which develop the idea Kant seems to have had rather obscurely in mind, we may explain as follows.

The purely formal postulates of the theoretical reason represent an ideal of organisation of contents or truths —a logical ideal—which, in view of its purely regulative character, as means and not end, has no right to go beyond phenomena: this in so far justifies the result of the *Critique of Pure Reason.* On the other hand, the formal postulate of the practical reason, the categorical imperative, represents a teleological ideal, not a logical one: it is an end, not a means. This in so far justifies the outcome of the *Critique of Practical Reason.* But the further question arises, how can the ideal end of the practical reason receive any content whereby it may become after all more than a formal

principle? The answer is that it can lose its formal character and become the ideal Good only as it is informed by the intelligence. This Kant agrees to. The practical ideal justifies the theoretical, the good supports the true; but it is for the sake of and because of the good. The true becomes absolute because an intelligible good requires that it should be so. God, freedom, immortality, postulated by practice, are *informed with meaning* by the intelligence.

Is there, it may be asked, any more intrinsic bond between the true and the good, between the theoretical and the practical reason, than this? And this is also to ask: Is there any bond between the formal or *a priori* as such, which the reason legislates, and the concrete facts and motives of life which sensible experience contains?

The more intrinsic bond in both these senses is to be found in the domain of feeling; this is what is intimated by Kant in the *Critique of Judgment*—the judgment of taste or appreciation. In appreciation, felt and judged, the universal loses its purely logical character, as mere rule of organisation, through the reinstatement, in imaginative or "semblant" form, of something concrete. The good, likewise, loses its purely teleological character as formal ideal of the will. Both become "as-if-actual" in the realisation that the judgment of appreciation discloses, according to its own rule of taste. The ideal of beauty is that of the immediate realisation of values of both sorts; and in the postulate of complete and final æsthetic fulfilment, the opposition between the ideals of intelligence and will, no less than that between particular and universal, is overcome.[1]

[1] Although to say that this can be rendered in "judgment,"

If Kant had worked this fully out, his kinship with Plato would have become more apparent. Plato also sought for the real union of the true and the good in love and contemplation, affective in character. Both were in this sense pancalists.[1] In Plato this issues in the absolute, while in Kant it secures merely the objective thing (not the thing in itself) of our imaginative faculty, which is disinterested and common to all individuals.

It is worth while to bring out this neglected and in itself undeveloped side of the Kantian philosophy; for it is of high psychological interest. Kant opposed the psychologising tendencies of Locke and Hume, claiming himself to take up the purely logical point of view of considering experience as a system of organised objective data. He distinguished the problem of the origin of knowledge from that of its validity. This did very well for the pure reason; and the method was in the main consistently maintained by him. But in the criticism of the norms of the practical reason a departure is noticeable in the direction of a hospitality to other than logical, to moral and psychological, grounds of validity. In the critique of æsthetic judgment the lapse from grace is complete. The judgment of taste is studied largely as a psychological process; it proceeds according to an *a priori* rule or norm, but it is not submitted to the rules of the concepts of the understanding. The "harmony" of the æsthetic object is due to the harmony or full agreement of the faculties.

strictly speaking, is in a way to let in the nose of the logical camel again.

[1] A term suggested by the present writer, *Thought and Things*, Vol. III, Chap. XV, for the developed view of this type. See the account of the more explicitly pancalistic views of Schelling, below.

In the result, the gain to psychology—or to "anthropology," as Kant would put it—is mainly in the treatment of the non-intellectual functions, will, moral judgment, and æsthetic appreciation. The *Critique of Pure Reason*, which contains the discussion of knowledge, is so run through with logical classifications and distinctions, and so permeated with *ex parte* argumentation, that psychology proper profits little from it. For example, the table of categories of the intelligence, showing symmetrical four-times-three headings, follows from the fourfold distinction of attributes of judgment —quantity, quality, relation, and modality—of the scholastic logic.[1]

Similarly, the arguments cited to prove the *a priori* character of space are deductive and lacking in experiential basis. Kant says that space is the native form in which alone the perception of extended objects is possible, because while we can think of space from which all objects have been removed, we cannot think of objects from which space as extension is removed. But why may not empty space be an abstract concept drawn from the property of extension in objects, the extension which, according to Descartes, was—for much the same reason as this of Kant—the very essence of body? Descartes maintained this on the ground that while other properties of external objects were relative,

[1] This tendency appears in high light in Kant's attempt to correlate the three fundamental functions, intellect, feeling, and will, with the three stages in the process of formal thinking as recognised in logic—concept (term), judgment (proposition), and conclusion. The concept corresponded to intellect, and the conclusion to will (seeing that will is merely formal, having no rational content); and judgment, being the only function left over, must correspond to feeling. It is on such grounds as this that Kant's third Critique is called *Kritik der Urteilskraft*. See Bernard's translation of the *Critique of Judgment*, Introduction (1892).

the spatial properties were necessary to the conception of body as such.

Kant's argument would apply equally to colour. We cannot think of empty space without some colour—grey, white, black, or what not. Colour must, then, be an *a priori* form of the external sense.

Kant entrenched the faculty-psychology more firmly by his sharp distinctions of sense, intelligence, and reason. These remind us of the different souls, or "parts" of the soul, of Plato. Sense gives order to objects in space and time, intelligence relates them in synthetic categories, and reason imposes the regulative ideals of all knowledge, And yet with all this formal apparatus, Kant also finds functional motives at work. He follows Tetens in the distinction of intellect, feeling, and will—the beginning of the modern threefold classification of the mental functions. Intellect and will refer to objects, feeling to the self.[1] He broadened the definition of apperception to include the synthesis effected *a priori* in perception; and he used the term "inner sense"[2] for the functional aspect of consciousness as a whole.

Kant's teaching in regard to imagination (*Einbildungskraft*), obscure as it is, shows his more direct psychological instinct at work. Imagination, he says, plays a part between perception and thought, throwing the manifold of sense, by a sort of first synthesis, into "schemata" for the work of the intelligence. He takes

[1] Tetens had distinguished intellect and will, as "active," from feeling, as "passive." This writer also distinguished sensation in the Kantian sense (*Empfindlichkeit*) as referring to an object, from feeling.

[2] In the *Anthropology*. Yet by the inner sense, Kant also sometimes means the mere ordering of the phenomena of self-consciousness in time (so in the transcendental æsthetic).

up, that is, the point made by the mystics of the Renaissance.[1]

This is, as we have pointed out elsewhere,[2] sufficiently close to the newer view of the imagination—considered as the function that entertains assumptions and hypotheses, suggests alternatives and proposes suggestions, preliminary to the formation of judgments—to justify the adoption of Kant's term "schema" (with "schematise") for this very vital function of cognition. In the *Critique of Judgment,* also, Kant gives the imagination the all-important place in æsthetic production, as Aristotle had done.

With it all, however, we must say that nothing short of the abandonment of the ultra-logical point of view could have integrated these and other bits of good psychology in the Kantian system.

Kant explicitly declared that a positive science of psychology was impossible. He contended that the matter was not amenable to mathematical treatment, and also that the relative and mobile character of mental states precluded exact observation. We cannot observe an emotion without altering it. Moreover, the flow of mental process has only one dimension, its order in time.

On the whole, we may observe that Kant's mind was so filled with the fact of unity in all the mind's products, especially in the objects of knowledge, and so convinced of the inadequacy of the mechanical explanations of the associationists, that he detected synthesis everywhere: synthesis logical and psycho-

[1] See above, Vol. I, Chap. VII.

[2] In *Thought and Things,* Vol. I, Chap. VIII, and Vol. II throughout. The work of Meinong, *Über Annahmen,* also emphasises this rôle of imagination, placing it, as Kant does, between perception and judgment.

logical, synthesis *a priori* and *a posteriori*, the syntheses effected by different faculties often duplicating one another. This gives him his place in history. He offered a new method and made fruitful co-ordinations which were made use of by his successors in a more constructive and synthetic idealism. His theory of knowledge revives Aristotle's doctrine of matter and form; but he applied it to organised experience instead of to vital organisms. This is in itself a suggestive commentary on the progress of the subjective and logical points of view.

The Faith Philosophy: Jacobi.—The extremes reached by Spinoza and Kant in rationalistic absolutism and scepticism, respectively, were the signal for a return to feeling. A movement sprang up, similar to the earlier developments in the direction of mysticism after periods of abstract logical thought—the early Greek Mystics, the Neo-Platonists, the German Mystics, those of the Renaissance. Kant's destructive criticism of logical dogmatism, Luther's return to justification by faith, the prevalence of quietistic and pietistic views, the reaction of the Roman Church to authority, in opposition to the Reformation—all conspired to produce a doctrine of immediate knowledge or intuition in opposition to mediate and discursive reason.

This doctrine found its exponent in *F. H. Jacobi* (1743–1819), a late contemporary of Kant. In him it issued in a conscious and critical attempt to justify faith, both as a substitute for rational or conceptual knowledge and as a method of philosophising, in the place of argumentation. As to the first of these, Jacobi declares that there can be no other outcome for rational philosophy than that of Spinoza, which is atheistic; and

as to the second, that there is no result from the use of argument save materialism. He attempts positively to define and justify faith as an organ of apprehension. It is immediate, not mediate; an act, not a process. Both sensible fact and supersensible reality are known immediately by faith. Faith may be produced through argument, and aroused by imagination; but it is different from both of these: it renders its results by a necessity of feeling.

Later on in life Jacobi identified faith with the pure reason (*Vernunft*), interpreting this, however, as feeling. He used the term intuition (*Anschauung*) for this mode of apprehension through feeling, and so made himself a forerunner of the Scottish[1] and other later philosophers of intuition.[2]

The faith philosophy, called "fideism," is noteworthy as an effort to justify feeling as an organ of immediate knowledge.[3] It does not attempt, with the older mysticism, to utilise feeling as exemplified in trance states merely, as the vehicle of aspiration and religious enthusiasm. On the contrary, it sees in faith a normal and universal mental attitude. In this it affords a further step—as the theory of imagination in Aristotle and the Renaissance mystics was one step, and the theory of practical reason in Kant, with which Jacobi

[1] The intuitions of the mind are described in J. McCosh's *Realistic Philosophy* as "primitive beliefs."

[2] "The understanding," says Jacobi, "produces notions, of notions, from notions," in a passage written quite in the spirit of the most modern a-logism.

[3] "There is a light in my heart, but it goes out whenever I attempt to bring it into the understanding. . . . Which of these two is the true luminary? . . . Can the human spirit grasp the truth unless it possesses these two luminaries united in one light?"—Quoted from Jacobi by Schwegler, *History of Philosophy in Epitome*, Eng. trans. (1886), p. 318.

himself connects his own view, was a second—towards a psychological and experiential doctrine of intuition.

We may say that the stream which embodied the affective motive—arising in primitive psychology and in the Greek and Oriental mysteries, and entering into philosophy in the divine Love of Plato—divided itself into two currents. One of these kept to the direct methods of absorption, ecstasy, negation of thought in pure feeling; the other showed a growing effort to justify feeling, along with, or in competition with, intellect and will, as an organ of the apprehension of reality. In Jacobi, the latter assumes the form of a reasoned affectivism, and takes its stand, along with intellectualism and voluntarism, as an alternative of reflection.

In the new interest in æsthetics and the growing enthusiasm for fine art, born of Romanticism and appearing at its highest in Goethe, Schiller, and Lessing, another current of affective psychology [1] was also gathering force. It was present in the same generation in the pancalistic suggestions of Kant's *Critique of Judgment*, already spoken of, and reappears, as we shall see, in Schelling and Lotze.

[1] See this heading in Chapter VI, below in this volume.

PART V.

NINETEENTH CENTURY PSYCHOLOGY

CHAPTER III.

Preliminary Survey—Philosophical Psychology since Kant.

Preliminary Survey.—The nineteenth century has been called the "century of science." This is pre-eminently true, for the physical sciences proper—physics, chemistry, and astronomy—came into their experimental heritage only in the first half of the century; and the biological sciences—zoology, botany, and physiology—acquired their independent position on receiving the impulse of the evolution theory in the second half. The motives already pointed out as naturalism and positivism came slowly into operation. The former involved the recognition of natural law in all the phenomena observed, and the latter the adoption of a strictly observational and experimental method. In the biological sciences the latter step was impossible as long as the "special creation" theory of species was entertained, making use, as it did, of logical principles of classification, and implying a philosophy of uncritical vitalism. The same influences held back the science of psychology—in this case strengthened by the traditional claim of philosophical speculation to solve the problem of the soul.

The nineteenth century opened at a natural pause in the development of theories about the mind. In the flow of the great currents, certain eddies had formed late in the eighteenth century. The dogmatic movement in Germany had passed over into the critical; and Kant had attempted a new æsthetic reconciliation of the dualisms of "reason and practice," and "inner and outer." The Kantian psychology or anthropology is essentially a renewed subjectivism—that is, so far as it is critical. Neither scientific naturalism, nor positivism in the sense defined above, profited greatly from the work of Kant. Indeed, the explicit attempt to refute Hume, in the spirit of the logical critique, throws the weight of Kant as authority—to go no deeper—on the side of an obscurantist attitude toward facts. Historically, also, Kant led the way to what has been called the "romantic movement" from Fichte to Hegel. In Fries and Beneke a reaction sprang up in the direction of the empirical observation of consciousness.[1]

Again, in France an impulse was asserting itself away from the materialism of the sensationalists toward the frank and vital naturalism of J. J. Rousseau. Rousseau's return to the mental life, in all its fulness and immediacy, involved a truer naturalism than the view which ignored the significance of ideas and of the emotional functions in favour of sense-processes.

In England a science of psychology was clearly emerging at the opening of the nineteenth century. Locke had broached his subjective naturalism, which the French sensationalists, as we have seen, developed on one side only. Hobbes was a positivist, in much the same sense for our purposes as Auguste Comte later on.

[1] On these two men see the notices given in Dessoir, *loc. cit.*, pp. 180 ff.

But it was in David Hume that the two requirements of a true science of psychology were consciously present. Hume treats mind as a part of nature: this is naturalism; and he also works at the problem of discovering the laws of mental change by actual observation: this is positivism. In both he is justified by his results; he is further justified by his extraordinary historical influence.

If, then, we are justified in saying that David Hume is one parent of the positive science of psychology—in the sense of the word that places this subject in line with the other natural sciences, both as to its material and as to its method—then we have to look for the other parent to France. Dropping the figure, we may say that Rousseau in France started an essential movement in the development of the science, vague and difficult of definition as Rousseau's personal influence is. Possibly, for reasons to be stated later on, this contribution should be called the Rousseau-Comte factor; as possibly, also, the British contribution should be called the Locke-Hume factor.

The influence of the Rousseau-Comte factor, to-day more undeveloped than the other but showing itself constantly more fertile, may be shown by a further appeal to the analogy with the individual's growth in personal self-consciousness. As an intimation of my meaning, I may refer to the Rousseau-Comte *motif* as the social or "collective," and the Locke-Hume *motif* as the personal or "individual."

Taking up the genetic parallel, we may remark that the positive method applied by Locke, Hume and the Mills *in an individualistic sense,* proved itself to be an inadequate instrument for the interpretation of the psychic material; since it not only neglected—and still

neglects—the social side of life, but by so doing distorted the normal individual mind. In the development of the individual the thought of a separate personal "self" is a late outcome of reflection. The early stages of dualistic thought are thoroughly social. The mind-body dualism is an abstraction in both its terms; "mind" means many minds, and "body" many bodies. The material of self is, in its origin, collective, not individual. The immature child thinks of the self as a term in a social situation, as part of a larger whole.

If this is true, the science of mind must be one in which the concept of an isolated individual mental life is used as a logical abstraction, as an instrument of method rather than as a truth of analysis and explanation. Psychology should be a science in which the material is, so to speak, social rather than individual. This point has been worked out only in recent literature, and still only inadequately; but we may find the source of this type of collectivism in the French thinkers, Rousseau and Comte.

Besides these two great movements, credited respectively to Great Britain and France, modern naturalistic psychology has felt other important impulses. One of these came about the middle of the century in the rise of the evolution theory, and from the side of biological science; another from German beginnings, and from the side of physical science. I shall speak of these respectively under the headings of Genetic Psychology, its pioneers being Lamarck and Darwin, and Mathematical and Experimental Psychology, founded by the Germans, Herbart, Fechner and Lotze.[1]

[1] An interesting work on the German group is G. S. Hall's *Founders of Modern Psychology*, 1912. See also Ribot's *German Psychology of To-Day*.

This properly scientific movement, however, did not supersede or discredit—for the philosophers at least—the rational type of interpretation. A new series of speculations, constituting the romantic movement following Kant, dominated German thought, and penetrated, in the form of Neo-Hegelianism, into England and the United States.[1] While the empirical and positivist movements of the nineteenth century have hallmarks of Franco-British origin, the new metaphysics of thought bears the label "made in Germany."

While these national distinctions are interesting, they cannot be made the headings of historical treatment; for it was the nineteenth century that saw the true internationalisation of science. We will, then, revert to the more intrinsic factors, using the national distinctions only incidentally, in treating of the nineteenth century development (not, however, always under these formal headings, which belong rather to the philosophical schools as such).

I. *Philosophical Psychology since Kant*—
   1. Post-Kantian Idealism and Voluntarism.
   2. Spiritualism, Realism, and Dualism.
   3. The New Monism and Agnosticism (touched upon incidentally only).
   4. Contemporary Immediatism: Æstheticism and Intuitionism (touched upon incidentally).

II. *Scientific Psychology in the Nineteenth Century*, comprising—

[1] In England it produced an extensive school—Green, Caird, Bosanquet, Bradley; in America its most prominent representatives are W. T. Harris and John Watson.

1. As to Method: Positive.
   a. Descriptive.
   b. Constructive.
   c. Genetic.
2. As to Subject-matter: Naturalistic.
   a. Physiological and Experimental Psychology.
   b. Animal and Comparative Psychology.
   c. Social Psychology.
   d. Affective, Æsthetic, and other Contemporary Movements.

I. *Philosophical Psychology since Kant.*—The flood of speculation immediately following Kant tended to subvert the empirical and scientific treatment of the mind. In this movement, however, the concept of the soul, considered as the self or "ego," underwent certain transformations. The recognition of reason as the synthetic and absolute principle asserted itself with variations in Fichte, Schelling, and Hegel.

The pre-eminence assigned to the practical reason, by the author of the *Critiques,* led to the development of voluntarism in Schopenhauer and von Hartmann. In Schleiermacher and Schelling we see the affective motive struggling to assert itself. We have space only to single out the essential psychological conception of each of these philosophers, and state it in a few sentences.[1]

Fichte, J. G. (1762–1814), asserted the immanent, active, and teleological character of the self. It is immanent in all the empirical processes of the mind. This led to a rejection of the faculty conception of the

[1] Among general works, Höffding's *History of Philosophy,* Vol. II, is a late and able exposition.

mental powers, a functional conception being entertained in its stead; to the rejection of the association of ideas as adequate to explain the organisation of mental contents, an active synthetic process being substituted for it; and to the introduction of the genetic idea, interpreted in the sense of a teleological movement. The progress of mind was considered as the active working out of the absolute self-consciousness.

But this absolute self-consciousness is not individual; it is universal, *Bewusstsein überhaupt.* Its movement includes nature as a whole. Nature is a manifestation of free creative self-consciousness. *Im Anfang war die Tat.* The personal soul owes its individual character to the accidental nature of the relation of mind and body. The history of mental development is that of a series of oppositions between the self and the not-self, or "other," which the self posits. The other is a limitation set up over against self-expansion and self-realisation. This opposition shows itself in a series of stages issuing out of the unconscious—sensation, intuition, imaging, thought, and reason. In the active life there is a similar series of stages, from blind impulse up to free and absolute will. Body is the form which the limiting "other" takes on at the stage of sense-intuition. The original term, the *fons et origo* of all, is action, will. Fichte substitutes "I act" for the "I think" of Descartes and the "I feel"[1] of Hume.

In this we discern a psychological doctrine which allows for the results of observation and comprises a genuine genetic movement in the development of consciousness; but only, it is true, as the outcome of the rational presuppositions of absolute voluntarism. It has been called a psychology "from above," as that

[1] Understood as "I sense," or "I have a sensation."

of the materialists is a psychology "from below." Mental processes are not observed, in the first instance, as facts, as scientific data; but as illustrations and evidences of the movement of a metaphysical principle of reality. As to its historical antecedents, we find here a renewal of the voluntarism of St. Augustine and Duns Scotus, and the development of the suggestion contained in the *Critique of Practical Reason.*

The same holds of the psychological views of Schelling and Hegel. They interpreted psychological processes heroically, romantically; life is an incident in the epic of the Absolute.

Schelling, F. W. J. (1775–1854), places greater emphasis on the evolution of nature, which is a sort of prehistoric chapter in the history. Unconscious spirit (*Seele*) has not yet passed into free and conscious mind (*Geist*): it slumbers in nature. The inorganic has in it the principle of self-consciousness, which goes on to be realised as consciousness in the organic and in man. The series of stages in the development of the mental principle are, with minor variations, those pointed out by Fichte.

The outcome of the teleological process of self-consciousness is, however, for Schelling, not thought or will, but their union in æsthetic construction and contemplation. Schelling carries further the hint given by Kant in the *Urteilskraft,* and which we have described above, using the term "pancalism." Art production to Schelling unites the theoretical motives of science and logic with the practical motives of life and conduct. Artistic creation goes beyond the mere reproductive and schematising imagination, and produces a work which fulfils at once all the partial ideals of the more special functions of the self. In it the oppositions of

nature and mind, self and not-self, are overcome. Schelling gives to this æsthetic reconciliation an ontological value, rather in the spirit of Plato than in that of the experiential objectivity of Kant.[1]

In brief, Schelling teaches the radically functional nature of mental process. The inner life is a ceaseless movement of change, becoming (*Werden*). To this process the movement of the absolute self-consciousness gives teleological character: here is the refutation of all mechanical analogies and explanations. The consummation of the process, for psychology, is the production and appreciation of art.

In *Hegel, G. W. F.* (1770–1831), psychology both gains and loses ground. It loses by the development of absolutism into a theory of an impersonal rational principle. Mind interpreted as thought (*Geist*) objectifies itself in the world, and shows itself subjective in the individual mind. Objective mind, subjective mind, and absolute mind are the forms that the one principle takes on in the course of its evolution. For the interpretation of human history and natural history alike, a dialectical process of thought replaces the empirical laws of nature and mind. The saying of Schelling that

[1] Dessoir (*loc. cit.*, p. 65 f.) gives a full note on this position of Schelling; he says: "The theoretical and the practical, reason and sense, nature and mind, unconscious and conscious, lose their oppositions in art, which is the highest activity of the self. Above and beyond theoretical knowledge and practical need is the spiritual enjoyment of beauty, just as beyond both forms of striving, the artistic phantasy proceeds, a heavenly faculty, which has nothing in common with the prosaic 'imagination' of the old psychology." In the present writer's volume, *Interest and Art* (Vol. III of *Thought and Things*), a detailed research is instituted in the psychology of the æsthetic experience, and the results are interpreted in an empirical pancalistic theory (to be developed in Vol. IV) which gives support to these speculative conclusions of Schelling. Cf. also *The Psychological Review*, May 1908.

the phenomenal event or law of consciousness is "only the monument and record" (*Denkmal and Dokument*) of the real, is literally carried out in the theory of Hegel.

Psychology loses by this in the sense that rational oppositions and logical rules are read into all the processes of the mind: the event means thought, whether or not it shows itself to be thought. The lower functions, even those of sense, are interpreted as embodying —potentially, if not in actual form; implicitly, if not explicitly—the character of logical process. Feeling to Hegel, as to Leibnitz, is a mode of obscure knowledge. This tendency has been brought out, free from all ambiguity, in the writings of the Neo-Hegelian school in England, led by T. H. Green of Oxford, who makes the essence of the real a "standing in relations" which are constituted by thought as well as cognised by it. Pre-logical consciousness is informed with self-consciousness. Sensation is immature thought.[1]

On this view, a genuine evolution, a creative evolution, in the historical development of the mind or in that of nature, is impossible. There can be merely a "becoming," which means a *becoming explicit,* an *energeia* already assumed to be present in *dunamis.*

But psychology gained through the work of Hegel as compared with that of Fichte. The very abstractness and absoluteness of Hegel's principle of thought renders it comparatively innocuous. Like Spinoza's substance, being incapable of definition, it is susceptible of all possible predications. A notion that becomes infinitely thin in intension becomes also infinitely broad in exten-

[1] The works of Edward Caird in philosophy and of Hobhouse in psychology show this rationalising of the lower functions of consciousness.

sion. This shows itself *en germe* in Hegel's psychology as well as in his exposition of history. He works out, in the *Phenomenology of Mind*,[1] a genetic psychology in the sense of the schemes of Fichte and Schelling; but it is more free from the intrusion of rationalistic assumptions. He is able to recognise the results of empirical research—the laws of association, the modes of origin and development of thought, etc.—since the presuppositions of the entire movement are not material, but formal and teleological.[2]

Once acknowledge that, whatever may happen, thought is realising itself by an inner dialectical law of its own nature—and anything may happen![3] Hegel himself was more hospitable to scientific and positive psychology than are many of his followers, who are unable to tolerate the suggestion of an actual empirical derivation of the forms of thought. With them, as with Fichte and Schelling, thought has not entered into its full Hegelian heritage of abstractness.

Nevertheless, Hegel held that such a psychology, anthropological and phenomenal, was in no sense explanatory.[4] The teleological movement of thought,

[1] Hegel, *Die Phenomenologie des Geistes.*

[2] Schelling, on the contrary, considered the soul as material, no less than formal and final cause (cf. Harms, *loc. cit.*, p. 360) of the entire cosmic process, of which it became the "microcosmus," a picture of the whole.

[3] If in accordance with the famous saying of Hegel, *Sein gleicht Nichts*, "being equals nothing," then no "something," no phenomenal fact, can contradict being. But this is to say that, for scientific and psychological purposes, the *pure Hegel equals Hume.* This tendency of absolutism to become abstract appears in later forms of voluntarism also (as in Rickert and Münsterberg), in which full dominion over the world of fact is given to science, the philosophical reservation of an absolute value not interfering with it.

[4] *Anthropologie* was for Hegel the science of the mind as interpreting the first level, that of feeling, which included all that

through the entire series of modes of mental process, is for him the only explanation. No third alternative exists between the purely mechanical and the teleological interpretations. The theory of radical evolution, according to which novelties may be produced, new genetic creations, in the course of a purely natural movement of development, was not then in evidence. To Hegel and his followers formal cause—using the terms of Aristotle—is necessarily associated with final cause. The only explanatory psychology to Hegel was that which deals with the third and highest stage of mental development, the stage of freedom, which is the synthesis of idea and will. In this the absolute principle of thought, the immanent cause of the entire movement, achieves its end.

In the modern psychology of "form-quality" and "complexes," [1] however, and in the recent development of genetic logic, the problems of the nature and origins of form are isolated from those of finality. In biology, also, morphology is no longer committed in advance to a teleological view of the life-process. So also in the "opposition" made the motive of advance from mode to mode of mental life in the Hegelian dialectic, we may

feeling might imply individually and in racial culture (the mind in its relation to body). *Phenomenologie* was the theory of mind in the second stage, that of "subjective mind," *i. e.*, consciousness, together with its explicit mode self-consciousness, and the functions of intelligence, knowledge, and reason. The third stage, that of freedom, is the matter of *Psychologie*, as is noted further on in the text. Over against all this, the history of "subjective mind," there is that of "objective mind," active in nature and embodied in social institutions, in morality, in the state, etc. Finally, we come to "absolute mind," realising itself in art and religion, and in their synthesis in absolute knowledge. This last is the domain of the free development of science and philosophy.

[1] Developed by the Austrian school of psychologists in recent years. See Höfler, *Psychologie.*

see a formal rendering of the experiences of embarrassment, perplexity and urgency of adaptation, made much of in the modern genetic theories.

In short, Hegel's psychology presents to us a sort of shadowy, abstract and formal simulacrum of the positive genetic movement of the mental life. It permits science, but it hardly advances it. The kinship of Hegel's genetic view to Aristotle's is plain[1]; but to many minds there is no question that the latter's biological interpretation of the relation of matter and form is more fruitful than the purely logical one of Hegel.

Throughout this, the heroic period of German speculation, certain psychological points of view were incidentally placed in evidence. The genetic conception came to supersede the theory of faculties in both its forms, critical and dogmatic. The conception of the one ultimate and irreducible psychic function replaced the notion of an original "element" or content. For Fichte, this function was will; for Schelling, synthetic intuition or feeling; for Hegel, thought. Thus the alternatives of later functional theory were all suggested—those of intellectualism, voluntarism and affectivism.

The theory of unconscious mind anticipated later views, both psychological and metaphysical.

Moreover, the teleological conception went with the functional, in opposition to the mechanical and structural. In this the modern issue between apperceptionism, in its various forms, and presentationism, also in many forms, was clearly drawn. But these questions were not discussed for themselves. They were resolved incidentally in the development of deductive systems.

Schleiermacher, F. E. D. (1768–1834). Later German

[1] Cf. the citation from Hegel (*Encyclopädie*, Par. 378) made by Klemm, *loc. cit.*, p. 70.

views consisted largely of re-statements of these positions. Schleiermacher drew attention again to the actual concomitance of mind and body, and founded the distinction between receptive and active or "spontaneous" functions upon the physiological distinction between excitation and movement. In tracing the two sides of the mental life, knowledge and practice, he distinguished in each the aspect which refers to external objects from that which refers to the self; and under the latter heading gave an important place to feeling and sentiment. Sentiment is the sphere in which the powers are no longer held to concrete objects, but establish the ideals of art, morals, and religion. Art production is a free autotelic development on the side of the spontaneous powers. The analysis of religious emotion into feelings of dependence and feelings of awe or reverence has remained a contribution to the psychology of religion.

In *Arthur Schopenhauer* (1788–1860) the priority of will becomes fixed in a metaphysical system of voluntarism. Unconscious will is the active principle of nature. Intelligence enters into consciousness as an accompaniment of brain organisation. It is only in *E. von Hartmann* (1842–1906), however, that the voluntaristic theory allies itself positively with science, seeking systematic confirmation of the presence of will in nature. It is found in the show of instinct and animal impulse throughout the living world. With von Hartmann, as with Schopenhauer, the doctrines of will and the unconscious go hand in hand.

Spiritualism in England.—While in Germany the Kantian criticism dominated thought, being the weapon of the opposition to Hume, in England and France this opposition took on the form of a new spiritualism.

The "moral philosophy" of England, the "natural realism" of Scotland, and "psychological voluntarism" of France, all made use of a spiritual concept of the mind. The soul was a personal principle, not a mere bundle of states.

The English moral philosophy took up the problem from the point of view of ethics, attempting to point out the original springs of action and to define certain native "instincts" and "propensities." This set a new fashion: it brought into disfavour the treatment of the moral life in a subordinate way and as secondary to the intellectual. The questions of the moral end, the moral motive and sanction, moral sympathy, etc., suggested an investigation of passion and sentiment in all its range. In the writings of Shaftesbury, Hutcheson, Clarke, and Adam Smith this investigation was conducted with fruitful results for psychology no less than ethics. By this examination of the practical and emotional life the foundations were laid in psychology for the utilitarian and intuitional ethics. For both of these moral systems are empirical and psychological, in contrast with the rational and formal theories which had been developed in Germany.

Anthony Ashley Cooper, Earl of *Shaftesbury* (1671–1713), met the adversary by a direct mental analysis. He showed, as against Hobbes, that sensation was not the only source of knowledge; and as against the disciples of Hobbes, that all action was not prompted by self-love. On the other hand, the analysis of sympathy and of the altruistic impulses by the utilitarian thinkers (Adam Smith, Bentham) carried on the tradition of self-love descended from Hobbes. In later utilitarianism (Spencer, L. Stephen) the moral imperative was grounded in habit and racial custom, by an

analysis which made a beginning in the direction of social psychology.

The same interest in the practical life led to the distinction of the moral from the æsthetic and intellectual sentiments. Home pointed out the contemplative character of æsthetic enjoyment, by which it was contrasted with the active movements of the passions; and Hutcheson worked out a theory of the beautiful. The resort to immediate intuition corresponded, in the intellectual life, to the recognition of these original instincts and tendencies in the affective life, practical and sentimental, and became, under the name of "common sense," the catch-word of the Scottish school of spiritualistic dualists.

Scottish Natural Realism.—The Scottish realists restored, in a sense, the "faculty conception" in psychology, by their doctrine of common sense or mental "instinct"; for the multiplication of the sources of original intuition, primitive knowledge, direct apprehension, etc., closed the door to more thorough analysis, and left each "power" or faculty standing on its own feet. The direct appeal to consciousness, however superficial the scrutiny of consciousness might be, came to have the value of finality. Only the most compelling results of preceding analysis—such as the distinction between the primary and secondary qualities of matter—were reckoned with. The Scots gained a certain breadth and liberality of observation from this; but at the cost of being led to take things for what they seem, and of running the risk of the pitfall of superficiality —the one crime in philosophy![1]

[1] It appears that the theological interest in natural realism and the philosophy of common sense had much to do with their currency. Dogmatic spiritualism was the theory of the soul

Thomas Reid (1710–1796), the founder of this school, has the significance of having restored—for a considerable career—a dogmatic dualism. Psychology profited by this in that it awoke from its dream of extreme subjectivism. One immediate result was the further extension of the theory of association of ideas. In the works of Thomas Brown and Dugald Stewart, together with those of James Mill and his son John Stuart Mill, not to go further, the laws of association were extended in detail to feelings and states of activity. It was brought out in the course of refined and fruitful analyses of the "cognitive powers" and "motive powers"—a two-fold classification of functions which restored that of Aristotle. Brown, treating association under the heading of "suggestion," made common elements of feeling the link between associated ideas.

Later Associationism in England.—James Mill (1773–1836) developed a systematic psychology on the basis of sensation, the single original mental element; and association, the single principle of organisation, of which contiguity was the fundamental form. In this James Mill supported the sensationalism of Condillac with great breadth and accuracy of observation.

Sir William Hamilton (1788–1856)[1] reduced the laws of association to one, that of "redintegration"; the parts of an original whole tend to be re-integrated again, or restored to their original form, on being

taught by Christian theology. This appears especially in the form in which philosophy and psychology were imported from Scotland to America and maintained there up to about 1880. Noah Porter and James McCosh were exponents of official psychology in the Universities, and both were Reformed clergymen.

[1] Hamilton's erudition was remarkable. His pages retain a further value by reason of their very full—if not always accurate—historical summaries and citations.

separately revived; each part calls up other parts. This is substantially a repetition of the formula of Christian Wolff. Hamilton, also, having a knowledge of the German idealists, recognised more adequately than others of the Scottish school, to which he belonged, the subjective factors of perception and knowledge.

In *John Stuart Mill* (1806–1873) a new departure appears in British thought, inasmuch as in him the influence of Comte began to show itself. Stuart Mill absorbed the philosophical agnosticism of the Comtean view, and led the British Positivist movement; but his psychology failed—more than his logic and ethics—to absorb the social or collectivist motive with which the teaching of Comte was informed. The influence of Stuart Mill upon English thought has been enormous—perhaps second only to that of Hume—but his positive theories are in the realms of scientific method and inductive logic, and of the utilitarian ethics; not in that of psychology proper.[1]

French Spiritualism.—The movement in France took on at first a more original form than in England—that of a voluntarism proceeding upon the psychology of the active life.

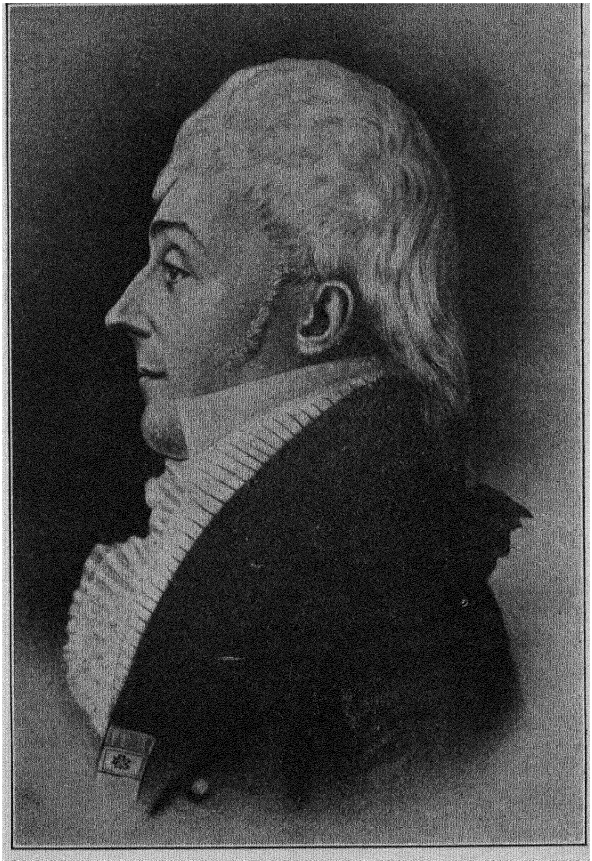
[1] It is a sorry fact for psychology in Britain that both the movements of philosophical thought by which speculative and practical interests have been recently directed—Comteism and Neo-Hegelianism—were foreign importations, which obscured for the time the clear British psychological vision and deadened its sound tradition. Only just now, after much travail, has psychology found a place in the universities, and it still lives on the crumbs that fall from the table of logic and metaphysics. It is extraordinary that the country of Bacon, Locke, and Hume should not have been the first to welcome the experimental treatment of the mind. The empirical tradition in its descriptive form was, however, maintained by Bain and Shadworth Hodgson, both referred to again.

Pierre Laromiguière, Maine de Biran, and T. S. Jouffroy analysed volition and found a primitive "sense of effort," much in the sense of that pointed out by Locke. With this weapon they combated the sensationalistic analyses of Condillac and Berkeley, and opposed the prevalent agnosticism.

Laromiguière (1756–1837) supplemented the narrower view of sensation by the recognition of feeling, which extended, as he said, to the consciousness of cognitive and volitional processes. He isolated "feelings of relation" and "moral feelings." The sense of mental activity resided in the attention, on the intellectual side, as well as in the original effort or impulse, on the voluntary side. It is in the attention that the cognitive processes of comparison and judgment take place.

The beginning of the study of the attention by Condillac and Laromiguière is noteworthy. The attention is the citadel of spiritual and activity theories of mental process in modern psychology; and it is astonishing that it remained so long outside the range of interest. Condillac interpreted the attention in terms of the inhibition of other sensations by the high intensity of the one attented to; an anticipation of the "intensity" theory of attention as held to-day. Laromiguière, on the contrary, asserted the active character of attention, giving the cue to later functional and "motor" theories. From these beginnings the rôle of attention has become one of the central problems of modern philosophical and descriptive psychology.

Maine de Biran (1776–1824) followed with a definite psychological voluntarism. He proceeded from the Augustinian postulate *volens sum*, founding this intuition upon the opposition felt in experiences of voluntary effort against resistance. He went further than Laro-



MAINE DE BIRAN.

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miguière in developing what have been called the "dynamic categories" [1]—force, cause, substance, etc. —from these original experiences of personal activity. This is, in its results, in sharp contrast with the Humian derivation of these ideas; but it employs the weapons of Hume, since it reposes upon the activities which Hume summarised in his theory of habit. If we say with Hume that habit is that element by which psychic contents are bound together in unity and connection, then we may go on to a further analysis of habit on the functional side. This is the procedure of certain modern psychologists who agree with Hume that habit results in a solidification of contents; by these psychologists, habit in turn is analysed into modes of synergy and assimilation in "motor processes," to which perhaps the attention itself is originally due.

In *Jouffroy* (1796–1842) a further development followed, not so much in the way of increased system as in that of increased vitality, through the presence of a certain romanticism and impressionism. Jouffroy might be called the Rousseau of spiritualism, so similar is his call "back to life" to that of the great thinker of Geneva. Both uttered the sentimental equivalent of the logical demand of the formalists, "back to Kant." And the two movements, sentimental and formal, stirred up the positive spirit of science in the person of Auguste Comte. The same spirit had been stirred up similarly in the person of Francis Bacon.

In this interesting departure of French voluntarism, a contribution was made to psychology different from that made by the British moral philosophers, although they have points in common. Both emphasise the

[1] Cf. Ormond, *The Foundations of Knowledge*, Chaps. V and VIII, who carries out the same sort of analysis with great power.

affective and volitional life, both suggest functional considerations over against structural, and each implies in a certain way a faculty theory. But the French development was perhaps more profound and lasting in its influence, since it issued in points of view more important for psychology than those of natural instinct and common sense. The most fruitful result, indeed, of the moral-sense movement in England was the laying of the psychological foundation of utilitarianism; but this was a departure from the spiritualistic assumption in the direction of naturalism.

In France the period closed with an Eclecticism [1] which borrowed directly from the natural realism of Scotland. In France, too, as in England, this was made the ecclesiastical weapon against free thought.

[1] Imposed with authority upon official French thought by Victor Cousin and Paul Janet until the rebirth of speculation in Renouvier.

CHAPTER IV.

Scientific Psychology in the Nineteenth Century. General Points of View.

I. *The Positive Method.*—We have now followed the development of the philosophical views which arose in opposition to the naturalistic interpretation of the mind: the speculative theories of Germany, and the psychological theories of England and France. The speculative theories allowed greater liberty to science as such, since they gave themselves to the interpretation of facts in a larger world-view, not to the observing or selecting of facts in the pursuit of special interests. On the other hand, such special interests—the interests of spiritualism, morals, theology—were controlling in the English and French movements; and for that reason their opposition to a thorough-going psychological naturalism was sharper and more persistent.

Understanding that these special motives were in a large sense practical, we may say that in France such practical interests, especially in their vested forms, ecclesiastical and political, suffered a destructive shock in the Revolution. As a consequence, radically new possibilities of reconstruction were opened up in science as in other lines of endeavour. The victory of psychological naturalism was accordingly more rapid in France than in England or Germany. The impulse given to thought in France by the subjectivism and romantic

naturalism of Rousseau was lacking elsewhere. If we take the theological interest as typical for our purposes, we are not slow to observe this national difference in high relief. In France, the theological bias and restraint were done away with in scientific circles through the violent reaction from the Roman Church to free-thought; and positive methods of reconstruction were in demand. The Church survived as a practical cult—a conventional and æsthetic instrument—not as a theory nor as a restraint upon thought. Positive solutions were sought for everywhere, even substitutes for the deposed theology. Witness Comte's proposal of the Religion of Humanity.

In England, Germany and America, however, the relative satisfaction of the need of freedom of mind and conscience, achieved in the Reformation, left the citadel of theological interest still standing and still manned by defenders to whom the spiritual attributes of the soul were dear. Consequently the spirited and sustained opposition in these countries to naturalistic conceptions which seemed to endanger this view of the soul. The biological sciences encountered it in the form of an alliance of theology with vitalism in the interest of teleology; and in the opposition made to Darwinism in the interest of the dogma of "special creation." [1] How much the more did psychology have to fight its battles for a science of mind considered as a natural thing, found in the body, and subject to psycho-physical laws!

In *Jean Jacques Rousseau* (1712–1778) two motives

[1] Mr. A. W. Benn makes the suggestion that it was an analogous influence, the currency of the theogony of Hesiod, that prevented the spread of the evolution theory after its early start among the Greeks (*History of Ancient Philosophy*, p. 38).

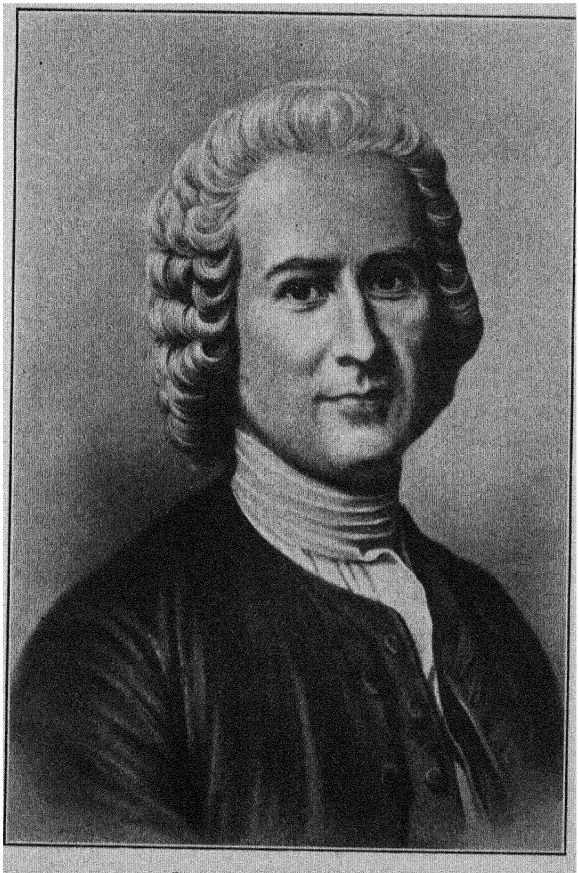
appear which are in a certain opposition to each other. The one is that of personal freedom, individualism, the larger naturalism of a full and unrestrained life. This is the dominant note of the "liberty, equality, fraternity," of the French Revolution. It showed itself in the *Émile* and the *Confessions*. The second motive is a distinctly social and collectivistic one, represented in the *Social Contract* and the theory of the "general will." It is the latter of these motives, the social, that remained so long undeveloped. To bring out its import was, and is, the task of later men.

In *Auguste Comte* (1798–1857) positivism of method reached its full statement. He called his first great work *Cours de Philosophie positive,* conceiving philosophy as the systematisation of "positive" or experimental science. Nothing beyond this, no metaphysics[1] as such, was possible. Philosophy being thus limited to the recognition of those sciences in which an experimental method could be employed, psychology considered as an independent science was excluded.[2]

Comte did not intend, however, to exclude the facts of psychology; he only insisted on their being referred to a science in which the positive method was possible. This led him to objectivise the inner world for scientific treatment, and to look upon it as it may be observed

[1] The epoch of positive science follows that of metaphysics, as this in turn follows that of theology, according to Comte's "law of the three stages" in the evolution of thought. Metaphysics is a premature, and in its results abortive, effort to interpret the world. In this, Comte gave to later Positivists a sort of excuse, but not a reason, for the shallow verbal anathemas directed by some of them against speculative thought. See the *Biographical History of Philosophy,* by G. H. Lewes, for an example of this attitude.

[2] We cannot dwell upon Comte's famous classification of the sciences. He had the advantage of knowing Bacon's scheme, which had been adopted by the editors of the *Encyclopædia.*



JEAN JACQUES ROUSSEAU.

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in its actual operation in the social life. "Sociology" —a word due to Comte—was to comprise all the sciences of the intercourse and interaction of men, their minds being the centre of such interaction. Thus the mental as such, while not presenting a sphere open to positive treatment, nevertheless offered its data to the science of sociology.

In this programme of a sociology, we may forsee the re-establishment of the collective values jeopardised by the individualism of Rousseau. Humanity was to be the summary of these values and sociology its theory.

An analogy of interests suggests itself between this procedure of Comte and the somewhat similar objective way of treating mental facts by Aristotle. The latter associated the mind not with society, but with the physical organism, in such a way that while the subjective point of view was not lost, it was still merged theoretically in the objective, in his case, the biological. Mental functions were classed with physiological. Comte treats the mind similarly, except that it is the social body, rather than the physical body, in which he finds the sufficient objective and positive support for the events of consciousness.

In Comte as in Bacon the practical and the methodological were prominent; and he was urged on to justify the sort of naturalism in which these two motives issued. This led him to assert the essential fragmentariness and capriciousness of the psychic as such;[1] while he should have held to a larger natural-

[1] His inconsistency is seen in his appeal to Kant's relativism of knowledge to refute metaphysics, while using the objective order to refute the subjective point of view of Condillac and the spiritualists.

ism, within the conception of which the external and the psychic might develop each its own positive method. Of course, it is no reconciliation of two terms to deny one of them; and such a procedure has not the merit of the æsthetic synthesis which we find in the great monistic systems. Nevertheless, the assertion of the universal range of positive method was of the first importance. It carried forward one of the great motives of the history of science.

The gain of the Positivism—now technically so named—of Comte, accrued to science in general, not directly to psychology. The spirit of his teaching awaited its working out in a later generation. It was to the profit of sociology; for the negative answer to the question of a positive psychology went with the affirmative answer to that of a social science. The "positive" bearing of Positivism comes out, therefore, in two ways: first, as announcing a general method; and second, as preparing the way for a social science including social psychology. Comte was original mainly on the latter point, since in the former he followed Francis Bacon, suggesting for his own time the method that Bacon had described as that necessary for the "restoration of science."

II. *Psycho-physical Parallelism.*—It is evident that no permanent adjustment of interests as between spiritualism and materialism is possible so long as a theory of causal interaction between mind and body prevails. If pure spiritualism is right, a science of uniformities in mental process is impossible—as is also a physiology of the brain. The capricious interferences of the soul could not be reduced to law. But on the other hand, if brain states and their laws of organisation are to

impose their mode of necessity upon the inner life, then psychology may at once close its doors. Mental phenomena would vacate their claim to any characters or procedures worth investigating. Why observe them?—why not go directly to the brain? The automaton theory of Descartes is extended to the entire human animal.

The only possible way, therefore, to secure a truce, in which psychology may retain a strip of neutral territory for its own independent use, is that which adopts, or pretends to adopt, complete agnosticism on the question of the psycho-physical relation. Giving up or ignoring altogether the question of cause as between mind and body, we may investigate the mental and the physiological each for itself, grounding the two sciences respectively in the two distinct points of view.

This is the positive programme of which the theory of psycho-physical parallelism is a part. The mental life runs parallel to the cerebral, term for term in a "one to one correspondence," so to speak; but intercourse across the line is limited to a fraternal handshake.

This principle has taken on various forms of statement. The "double-aspect theory" of the English positivists, Clifford, Lewes, H. Spencer, makes the empty reservation that after all the basis of the parallelism is a substantial unity of some sort, itself perhaps unknowable—a reservation that "saves the face" of Positivism by seeming to ward off the charge of materialism. This charge is frankly accepted, on the other hand, by those, such as Maudsley, who accept the "epiphenomenon" theory of consciousness; to them consciousness is merely a by-product, a spark thrown

off by the engine, the brain.[1] Later phases of scientific monism—seen in K. Pearson, Mach, Poincaré—reduce all science to formulas of phenomenal and instrumental value. The data of psychology and physiology alike are merged in a larger whole of relative and utilitarian import.

With the evolution theory, involving a racial descent of mind and body together in the tree of life, the demand has come for the extension of the principle of parallelism to the entire series of animal forms, each type of brain having just and only the mind that goes with that brain. So evolution becomes psycho-physical in its character. Darwin and Romanes proceeded upon this assumption, which has since had explicit formulation.[2]

In such a parallelism, psychology avails itself of the liberty allowed by the old doctrine of "occasionalism" of Malebranche, and that of the identity of modes of the theory of Spinoza. Other late philosophical attempts to interpret the principle are those of Herbart and Lotze, the one in the spirit of Leibnitz, the other in the interest of a refined spiritualism.

Herbart, J. F. (1776–1831), worked out a doctrine which, superficially considered, suggests a new eclecticism. But this is only on the surface; for in the result his psychological views became of great influence. Adopting an atomistic point of view, similar to that of the monad theory of Leibnitz, Herbart postulated what

[1] H. Maudsley, *Physiology and Pathology of Mind* (1867): "The unity of the mind is merely the organic unity of the brain." See also Maudsley in *Mind*, No. 54, examined by the present writer in *Mind*, Oct., 1889.

[2] Cf. the writer's *Development and Evolution* (1902), Chap. I.

he called "reals" or first elements. The soul is a "real," whose original active inertia (*Selbsterhaltung*) shows itself in presentation. The entire phenomenal world is one of presentation (*Vorstellen*). Having thus a common character, nature and mind are subject to the same system of laws and principles of organisation. From this it follows that strictly mechanical processes —cause and effect, composition and resolution of forces, etc.—are operative in the play of presentations or ideas (*Vorstellungen*). We thus reach a somewhat surprising result—surprising considering the nature of the "reals"—a "mechanics of ideas," developed mathematically, which has become the typical case of pure "presentationism" in modern psychology. The apparent inconsequence is due, of course, to Herbart's having gone to mechanical science for the method and principle of organisation, while advocating the point of view of the psychical in the theory of the matter of the science.

It is in its view of the method of mental organisation, therefore, that the psychology of Herbart has its great interest. It is the legitimate successor of associationism. But it "goes the associationists one better," since it brings into the play of ideas a dynamic and quantitative factor. Like associationism, it also bears destructively on all forms of the faculty psychology; the one "mechanics" replaces the different powers and activities of the mind. Memory, for example, is only the reappearance of presentations under dynamic and mechanical conditions. Herbart passed a destructive criticism upon the faculty theory.

On this conception, ideas become "forces" that push and pull. When forced out of the lime-light of the attention—the focus of greatest intensity—an idea still

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remains active, exerting its force and ready to appear when the inhibitions from other ideas are released and a new equilibrium is established. No experience is ever lost; all presentations are persistent (*selbsterhaltend*) in the unconscious, the dark cavern of the soul. The state of mind of the moment is one of relative equilibrium among these "idea-forces;"[1] it may be, will be, changed by any new experience that modifies the equilibrium. Some other idea will be reinforced, a new set of tensions and inhibitions set up, and the process will again repeat itself. The mental life is thus a constant play of forces in action.

The principles operative, according to Herbart, in this play of ideas are those of "persistence," or inertia (*Selbsterhaltung*), "fusion" (*Verschmelzung*), and "inhibition" (*Hemmung*). Under the rule of these principles the ideas form systems, which cohere in masses (*Apperceptionsmassen*) in the mental life, and assimilate to themselves incoming ideas. The higher states are complexes, showing varying degrees of fusion among their constituent parts. A new idea, entering into a mass to reinforce it, is said to be "apperceived" by that mass. By this mechanical view, Herbart replaces the functional conception of apperception of Leibnitz and Kant; it is now not the "self" or mental principle that apperceives a content, but one content that apperceives another.

The other great feature of Herbartianism is its strict "intellectualism." By presentation or idea (*Vorstellung*) Herbart means, as German psychology always means, a cognitive unit, image, or idea; something

[1] The expression used by Fouillée, *La Psychologie des Idées-forces*, a writer who interpreted the dynamics of ideas less mechanically and also less intellectualistically than Herbart.

presented to the mind, having objective character, not something felt or willed. These latter aspects of the mental life, covered in German by the term *Gemüth*, are for Herbart derived, not original: they are functions of the play of presentations and depend upon that. Will is the consciousness of the dynamic side of the play of ideas—the tension of the idea toward clear presentation, its reaction against inhibition. When such a tension exists below the "threshold" of consciousness, there is "impulse" (*Streben*); when the idea is consciously inhibited, there is "desire" (*Begehren*); when it is released by the idea of the end of satisfaction, desire passes into "volition" (*Wollen*).

Feeling is the consciousness of the resulting conditions—of success, failure, equilibrium, compromise or balance, in this continuous rivalry of ideas. The functions of feeling and will have no laws of independent movement and organisation; they merely reflect the stage of movement, the *status quo*, of the intellectual forces at work. Here we see the extreme rationalising of feeling and emotion from which modern psychology is only just now freeing itself, through the organic and autonomous theories of James and Ribot spoken of below.

Consciousness becomes again, as in British empiricism, the mere theatre or *Lokal* of the mechanical play of presentations. It has a high degree of clearness in the conditions of intensity attaching to the presentation mass at the time in the focus of attention; it is relatively obscure at the margin, where presentations are held in check; and it has a threshold [1]—a sort of "stoop"—below which presentations sink into the un-

[1] A conception made more definite in later experimental research.

conscious. Consciousness is not functional; it is not a character of an active self. On the contrary, the self —the empirical self known in consciousness—is a complex like other complexes, a mass of contents, a system of presentations, acting like other systems. Attention to this mass gives it standing in the limelight, like attention to other masses; but attention itself is merely evidence of the dynamic activity of the mass attended to. Here we find Hume's "bundle of ideas" consciously and deliberately tied up with the mechanical cord.[1]

Among the special theories of Herbart, that of the empirical origin of space perception (a case of fusion of spaceless data) is important; it leads on to the genetic and local-sign theories of Helmholtz and Lotze.

With Herbart, a school was founded—its members called Herbartians—in whose writings the systematic exposition of empirical psychology in general textbooks began to be made. George, Waitz, Drobisch, Volkmann,[2] and from a modified point of view Lipps, published important works going systematically over the field of psychology. With them—as with Bain in English and Taine in French[3]—the domain of the descriptive science becomes so broad, and its details so complex, that a brief summary is impossible. We

[1] The presentationist view of to-day—as seen for example in the theory of the self of F. H. Bradley—essentially restates Herbart's view, leaving out, however, the terms of the strictly mechanical conception. See F. H. Bradley, *Appearance and Reality*, 2nd ed. (1897), Chaps. IX, X.

[2] The *Lehrbuch der Psychologie* of Volkmann von Volkmar (4th ed., 1894–5) has an additional element of permanent value in its rich literary citations and book lists.

[3] Both are associationists and empiricists. See H. Taine, *L'Intelligence* (1870), and A. Bain, *Senses and Intellect* (1855), and *Emotions and Will* (1859).

accordingly confine ourselves—as in other cases to be mentioned below—to the summary indication of the general characteristics of the school.

Herbart's psychology has become influential also in educational theory. A large group of writers have followed his leading in applying the theory of apperception as he conceived it to pedagogy. Within the Herbartian circle also—particularly in the writings of Waitz [1] and Steinthal—an early attempt was made to isolate the problem of racial psychology (*Völkerpsychologie*).

Hermann Lotze (1817–1881) represents the form taken on by modern spiritualism when founded upon inductive and analytic psychology.[2] He discusses the alternative solutions of the great problems of interpretation raised by scientific knowledge and method with remarkable balance, fairness, and judicial acumen: space, time, cause, substance, the self. His philosophical conclusions are those of a man who has not only contributed to scientific psychology, but who emphasises its rôle as the fundamental science. His book on *Logic* is one of the classics of the new "psychologistic" treatment of thought.

Lotze's work on "medical psychology" [3] entitled him to be called one of the founders of physiological psychology. He held to a theory of the relation be-

[1] Th. Waitz, *Anthropologie der Naturvölker*, 6 vols. (1870–1877).

[2] It is the beginning of the series of attempts to construct a spiritualist metaphysics upon empirical psychology—as those of James Ward (*Naturalism and Agnosticism*, 1899) in England, and those of G. T. Ladd (*Philosophy of Mind*, 1895), and A. T. Ormond (*Foundations of Knowledge*, 1900), in the United States.

[3] H. Lotze, *Die medizinische Psychologie, oder die Physiologie der Seele* (1852).

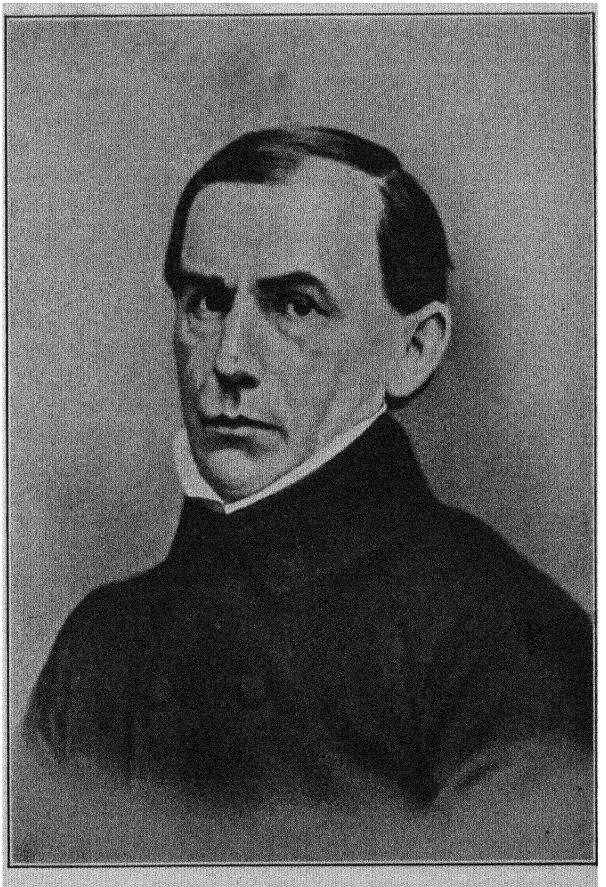
tween mind and body by which, as he thought, the criticisms brought against the interaction theory could be met without adopting a strict parallelism. The act of will was causally effective in voluntary movement, as was the stimulation of sense upon the mind; but both were limited in their effects to the restricted system of psycho-physical changes.

In a noteworthy analysis of cause and effect, including all change in the physical world,[1] he showed the impossibility of purely mechanical action, that is, action due to impact as such. The mere contact of two spatially separated bodies cannot result in the transfer of anything from one to the other; and the same is true of the ultimate organisation of the elements or atoms which constitutes physical mass. All physical action requires the assumption of some bond of union or organisation already established. The only analogy available for the interpretation of physical change is that drawn from the organisation of mental contents, especially in the form it assumes in social relations.

Lotze thus reaches—or at least suggests—a new point of view; that according to which the monads of which the world is made up are in their intrinsic nature psycho-social. On the basis of this view, to be described as a pan-psychic atomism, Lotze develops the psychological theories of his important work, *The Microcosm.*[2] It is evident that he reverses Herbart's essential procedure. Instead of finding in mechanical laws the ultimate ground of mental change, he makes the mental the ground of the physical.

Of his original psychological views, one of the most

[1] Lotze, *Metaphysik.* [2] *Der Mikrokosmus* (1856–1864).



RUDOLPH HERMANN LOTZE.

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important is the theory of "local signs." According to this theory visual space, while native to the mind, is provoked by means of qualitatively different "signs" or marks attaching to or stimulated with the retinal elements which are locally distributed. The sensational equivalent of each such sign—whether considered as something intrinsic to vision or as a muscular factor—comes to be referred to its proper optical element. The retina, as thus plotted out in its entire area, becomes the organ of discrimination of external spatial position and arrangement. Similarly for tactile space perceived through the skin, where the local signs are circles of radiation. This theory led on to the "extensity" theory of James and Ward, according to which the local signs were themselves extensive, not merely intensive or qualitative, marks of visual (or other) sensation.

This important idea of signs was later on extended to time-perception, in the theory of "temporal signs"; which were qualitative marks attaching to the passing events in consciousness, whereby they were redistributed in time-order and arranged as before and after. As in the case of local signs, these qualitative marks were replaced by temporal. Each instant or "now," looked upon as a section of conscious content, was considered as having a certain temporal thickness or duration.

Lotze's judicious spiritualism sharpened the opposition between the mechanical interpretation of consciousness of Herbart and the functional, which was still to have its full development. Presentationism, the purely structural psychology of content, was opposed by apperceptionism in the functional form, which recognised a synthetic function or activity of mind.

Put on the defensive in the matter of determining the fundamental functions or faculties, Lotze accepted the consequences of his view. Herbart and Brentano had argued that if once we admit different faculties, there is no stopping anywhere; every distinguishable mode of mental process may be ascribed to a separate faculty: colour-perception and piano-playing no less than feeling and will. Lotze did not deny this, but claimed that certain generalisations were possible which permitted the valid demarcation of the great functions recognised in the Kantian threefold division. He was one of the few Germans who opposed the current untempered claims made on behalf of "unconscious" presentations, the existence of which he denied.

CHAPTER V.

Scientific Psychology in the Nineteenth Century. II. Special Lines of Work.

Physiological and Experimental Psychology.—The idea that lies at the basis of physiological psychology,[1] properly so called, is that of a regular and uniform connection between the internal functional conditions of the body, especially the brain, and states of consciousness. The method consists in observing or modifying the physiological, with a view to noting, altering, or producing mental conditions—sensational, emotional, active, etc. Lotze's book on *Medical Psychology* was a pioneer work in this direction, as we have already said. The method has been productive in researches on sensation, emotion, and movement; and also notably in the domain of medical diagnosis and surgical treatment. The theory of "localisation of brain functions" rests upon facts observed and experiments made in the pursuit of this method. The development of knowledge and of medicine in the

[1] On these topics the reader may consult the writer's more detailed but untechnical expositions to be found in the work *Fragments of Philosophy and Science*, Chaps. VI and VII. The last edition of Wundt's *Grundzüge der physiologischen Psychologie*, Titchener's *Experimental Psychology*, and Ladd and Woodworth's *Outlines of Physiological Psychology* (2nd ed. 1911), are to be recommended for further study. An admirable early English work, written from the medical point of view, is W. B. Carpenter's *Principles of Mental Physiology* (1876).

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domain of "aphasia," since the discovery of the speech centre by Broca,[1] illustrates its enormous possibilities.

In the domain of sensation, the work of *Helmholtz*[2] on vision and hearing was epoch-making. It illustrates the extension of the method by means of external stimulation of the senses and experiments upon them, whereby "experimental psychology" came in to enlarge the scope of physiological psychology, understood in the narrower sense.

Researches in physiological psychology go back to the Arabian physicians, to Alhacen especially, and its body of results includes observations and discoveries made by many; but its establishment as a well-defined and well-controlled method of research is one of the notable achievements of the late nineteenth century.[3]

Experimental psychology, as distinguished from physiological, resorts to the external stimulation of the normal senses and to the direct experimental observation of the mind, the physiological conditions within the organisation remaining constant and normal.

In *psycho-physics,* the psycho-physical relation was experimentally investigated. It was founded by *G. T. Fechner* (1801–1887), who was led by his pan-psychic theory of the relation of mind and body to the attempt to discover the law of their mutual influence. The outcome of his experiments, in which he utilised results

[1] Called Broca's convolution; it is the third frontal gyre of the left hemisphere. See the article "Speech and its Defects," in the writer's *Dictionary of Philosophy and Psychology.*

[2] H. Helmholtz, *Die Lehre von den Tonempfindungen* (1863), and *Handbuch der physiologischen Optik* (1867).

[3] From the medical side, the works of Charlton Bastian, *The Brain as an Organ of Mind* (1880), and H. Maudsley, *Physiology* and *Pathology of Mind* (1862), have been very influential.

reached by the physiologist E. H. Weber, were stated in a quantitative formula known as "Fechner's psycho-physical law." The quantity or intensity of sensation varies with the quantity or intensity of the stimulation; but not in the same direct ratio. An increase in stimulation does not result in a proportionate increase in sensation; but in order that the latter may increase arithmetically, the former must increase geometrically. Put mathematically, this is equivalent to saying that the sensation increases as the logarithm of the stimulation.[1] This bears out the observation of daily life that two candles do not illuminate a page twice as much as one; that two violins, pitched in the same key, do not double the sound of one. It is a matter of ordinary observation that as the intensity of the excitation increases by well-marked variations, very slight changes are produced in the corresponding sensation.

Fechner's title to recognition as the founder of psycho-physics—as this special line of quantitative research has been designated—rests as much, however, upon his careful working out of the "psycho-physical measurement methods." These methods, which provided the code of experimental procedure upon which, with modifications, later investigation has proceeded, are expounded in the special works on psycho-physics.

The Weber-Fechner law, although found applicable

[1] The idea of a "sensational equivalent"—that there is a definite equivalence between mental manifestations and physical forces, the same as between the physical forces themselves"—is stated by Bain, "Correlation of Nervous and Mental Force," in Stewart's *Conservation of Energy*. Weber had already stated that in order to produce a noticeable increase in sensation, the stimulation must be increased by a constant proportion. Fechner (*Elemente der Psychophysik*, 1860) called his deduction the "law of quantity or intensity" (*Massgesetz*).

in a variety of cases, and employed with considerable licence of speculation in others—as in the theory of supply and demand in political economy—has not proved of great value. The interpretation of the psycho-physical formula is uncertain. On Fechner's view, the "inner" psycho-physical bond—that between the intrinsic brain process and the "soul"—was one of direct proportion or cause and effect. Others think that the facts of psychological relativity and physical inertia account for the apparent discrepancy between the stimulation, considered as cause, and the sensation, considered as effect. It does, however, go far to confirm the postulates upon which the experimental treatment of the mind proceeds: it proves that the mind-body connection is constant and uniform.

Mental Chronometry.[1]—Another relatively distinct line of experimental research is that which inquires into the time taken up by psycho-physical and mental processes.

Underlying mental chronometry is the idea that since brain processes and mental processes occur together, and brain processes take time, the time of the central occurrence as a whole may be separated off from that of the other parts of a reaction. The time of the entire reaction from sense to muscle—as when I press a key as soon as I see a light[2]—may be divided into three parts: that of the sensory transmission by the optic nerve, that of the central or brain process, and that

[1] The older term "psychometry" has been abandoned; it is badly applied in this case, and it has also been appropriated to certain occult uses.

[2] An experiment that reproduces the conditions of an astronomer's observation of a transit; this case, indeed, actually presented one of the early practical problems in reaction time work.

of the motor transmission to the muscles of the hand. Subtracting from the entire time that required for the first and third parts—quantities known through the researches of Helmholtz and others, on the velocity of the nervous impulse—or keeping them constant and negligible, the time taken up by the psycho-physical and mental processes may be reached by simple calculation.

A vast amount of detailed research has been carried out in refinements on this experiment. "Times" have been determined for perception, discrimination, memory, association, etc. Broadly considered, however, the results are disappointing. As is the case with psycho-physics, besides plotting in a curve and listing in figures, extending to several decimal points, the results already reached by rough daily observation, there has been little gain.

An important difference, however, has been established between "sensory" and "motor" times—cases in which the attention is fixed beforehand, respectively, in the direction of the stimulus or of the muscle used. The "motor" reaction is quicker. It has also been held that pronounced differences shown by individuals in their mental type, as being visual, auditory, muscular, etc., in their preferred mental imagery, show themselves in differences of reaction time.[1] Characteristic variations in reaction-time, occurring in abnormal cases and in nervous diseases, are useful adjuncts to diagnosis.

[1] This "type-theory" of differences in reaction time is presented and discussed in the writer's *Fragments in Philosophy and Science*, Chaps. XVI–XVIII—a citation made, however, for the further purpose of adding that the enthusiasm shown in the researches and discussions on this subject in that volume does not appear in the present text. In this dampening of ardour the writer by no means stands alone: cf. James, *Principles of Psychology*.

More important than these special researches in intensity and duration are the results obtained through experiments planned with reference to special problems. Here physiology and psychology go hand in hand. In the fields of sensation, memory, imaging, movement, emotion, attention, association, æsthetic judgment, thought, a mass of valuable facts and inferences have been accumulated: the variety and detail can only be understood by a reference to such handbooks as those of Helmholtz and Wundt already cited, and to the original papers in which the results are reported.[1]

Genetic Psychology.—With the coming of the evolution theory, especially in the form of the "natural selection" hypothesis of Darwin, considerations of origin, development, and growth came systematically into the natural sciences. Psychology in time felt the impulse; and gradually the genetic concept and method became current. The progress of Darwinism in the mental and moral sciences shows itself in certain of the departments of psychology in which specialisation has recently taken place: normal genetic psychology, child-psychology, animal or comparative psychology, race-psychology.

Jean Baptiste Lamarck (1774–1829), *Charles Robert Darwin* (1809–1882), and *Alfred Russel Wallace.*—Both Darwin and Wallace, the English co-discoverers of natural selection, the latter still living, were in spirit psychologists, so generously did their instinct for nature in all its aspects extend itself. Lamarck, their French predecessor, had recognised as one of the factors of

[1] Results in certain lines of recent investigation are reported and discussed in E. B. Titchener's books, *Feeling and Attention* and *The Experimental Psychology of the Thought Processes.*

evolution the "efforts," psychological in their character, made by animals in accommodating themselves to their environment. The effects of these efforts, no less than the direct effects of the environment itself upon the animal, were inherited and accumulated from generation to generation, according to the well-known "Lamarckian" theory. In this Lamarck showed that he breathed the atmosphere of the new voluntarism of Maine de Biran and Jouffroy, founded upon the sense of effort.

Charles Darwin recognised this principle of Lamarck, as well as the latter's view of inheritance. But Darwin showed the broadest interest in the facts of the mind itself; [1] and his theories and observations warrant our classing him among the naturalistic psychologists. The problems that exercised him were originally those of the animal kind—instinct, sexual preference, recognition markings, emotional expression, adaptation, etc.—all of which he discussed in the light of the theory of natural selection. But in his later work, *The Descent of Man,* he developed the full bearings of his views in their application to human faculty.

In it all we must recognise the founding of a new and thorough-going naturalistic psychology. The new and permanent element was the suggestion of a genetic morphology of the human faculties whose working out is one of the great tasks of the future. The mind in all its functions is a growth, its natural stages are those of the animal tree of life, its innate powers and *a priori* forms are inherited accretions which have been

[1] He observed the human baby ("Biographical Sketch of an Infant," in *Mind*, II. pp. 285 ff) and the garden plant with the same interest.

selected and accumulated from indeterminate variations. The formal or morphological factor in our equipment, no less than the content or filling given to it by experience, is the outcome of racial adaptation and selection in the physical and social conditions of man's pre-historical life.

In this we see a radical racial empiricism and naturalism, not only in point of view, but in the actual mechanism as disclosed in the principle of natural selection. Darwin not only proposed for the race what the associationists had suggested for the individual, the natural derivation of mental form; but his proposal took the problem of "matter and form" altogether out of the hands of the psychologist who treats of the individual, and made it again the genetic and historical problem that it had been to Aristotle and his Greek predecessors. The Kantian critique of experience asks: "How is the individual endowed to have the experience he has?" The Darwinian genetic naturalist asks: "What are the stages of racial history through which the individual has acquired his endowment?" It was the ring of mechanism and accidentalism in a theory founded upon "fortuitous variations" that made Darwin's views seem ultra-naturalistic in contrast with Lamarck's. But Darwin held also to the principle of the "inheritance of acquired characters" of Lamarck, although giving it a subordinate place.

Alfred Russel Wallace discarded, from the first, the Lamarckian view. In all his subsequent writings he has affirmed the sufficiency of natural selection. Like Darwin, he has an open mind for mental facts and sees their bearings on evolution.[1] He has made many

[1] Both Darwin and Wallace recognised the rôle played by consciousness in animal adaptations; such as the cunning employed

observations of psychological value—on imitation, courtship and mating habits, play, recognition of fellows, etc., among the animals. In one important respect, however, Wallace restricts the Darwinian principle outright. He holds that the rational and spiritual faculties of man could not have had a natural origin;[1] and in his further view he seems to go over to a form of spiritualism understood in the narrower sense of the reality and separateness of spirits, sometimes called "spiritism."

Herbert Spencer (1820–1903).—The psychologist's debt to Spencer has been grudgingly paid.[2] The reason

in flight, the taste and preference of the female, the warning given by colours and cries, the emotion shown in defence, the consciously social and gregarious actions; as well as imitation, rivalry, maternal and family affection, etc. In certain developments of Darwinian theory, consciousness plays an essential part; note the facts supporting the theory of mimicry, as reported in the writings of E. B. Poulton and others.

[1] A limitation of the same sort was set upon natural selection by the staunch Darwinian, Huxley, who held (Huxley, *Romanes Lecture, on Evolution and Ethics*) that the moral sense could not have been produced under conditions involving the "struggle for existence." A criticism of this view is to be found in the present writer's *Darwin and the Humanities*. See Wallace's *Darwinism*, for his strictly biological theories, and the *Studies, Scientific and Social*, for his more general views.

[2] H. Spencer, *Principles of Psychology* (1855). It is strange, but it is true, that many British writers find it impossible to do any sort of justice to Spencer. And yet where is there the British writer, save Darwin, whose name and theories are to be found in the whole world's literature of a half-dozen great subjects, since 1850, as Spencer's are? We hear it said that half the world now-a-days thinks in terms of Darwinism: but it is truer to say, "in terms of evolutionism"; for half of the half thinks its evolutionism in terms, not of Darwinism, but of Spencerism. Moreover, in the Latin countries and in the United States, it was the leaven of Spencer's evolutionism that first worked its way through the lump. Why not, then, recognise Spencer as what he was, one of the greatest intellectual influences of modern times, a glory to British thought? In psychology this is specially worth insisting upon,

is, perhaps, this, that with an unexampled programme for the science, and an equally unexampled wealth of plausible and research-exciting hypotheses, in this as in other sciences, Spencer combined a semi-deductive method, a speculative and ultra-logical manner, and a dry unattractive style.

Spencer applied consciously and directly the principles of psychological morphology, which were also implicit in Darwin. The native, *a priori*, forms of the mind are looked upon as solidified social experience—acquired, stiffened, transmitted by heredity. To the individual they are native; but by the race they have been acquired. Innate ideas are the petrified deposits of race experience. Here is a reconciliation in principle of the empiricist and the rationalist: the principle is that of racial experience; it is substituted for individual experience.

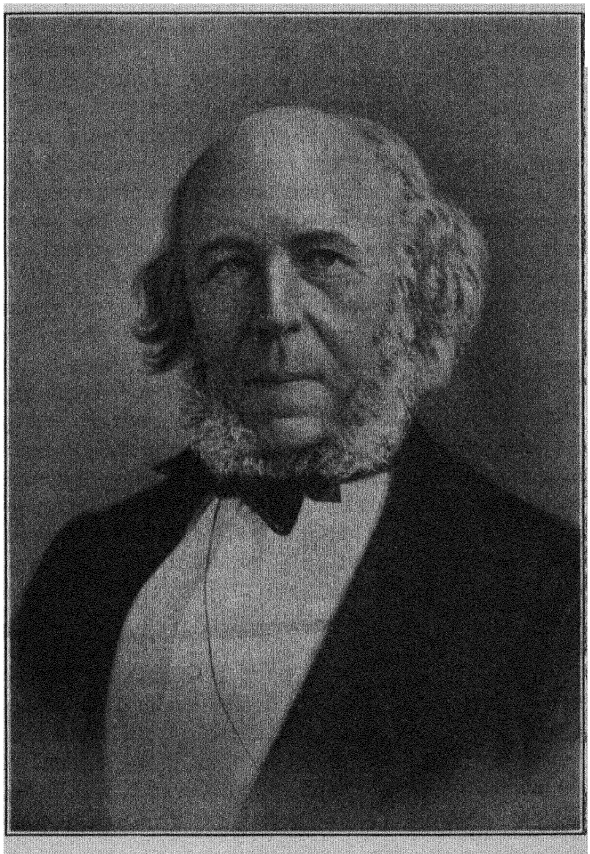
Spencer made Lamarckian inheritance an intrinsic link in the chain; but that is not necessary. Substitute for it the Darwinian conception of the continued selection of variations—especially as guided in its course by "coincident"[1] individual experience and social custom and habit—and the result remains the same.

To the psychologist, Spencer is an advance upon Darwin,[2] however, in that he discusses the alternatives

since Spencer came just at a time of surprising barrenness in this department in England.

[1] A term due to C. Lloyd Morgan, one of the discoverers of the supplement to Darwinism, known as "organic selection," indicated in the text between the dashes: Ll. Morgan, *Habit and Instinct* (1896), pp. 322 ff.; see also H. F. Osborn, *Science*, Oct. 15, 1897, and the present writer's *Development and Evolution*, Chaps. VIII ff., and *Darwin and the Humanities*, Chap. I.

[2] It is a question how far Spencer was influenced by Darwin. The dates of publication would indicate that Spencer's thought was, in the main, independent of Darwin's. Moreover, the



HERBERT SPENCER.

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ad hoc, and brings out their bearings fully. The transfer of emphasis to racial experience introduced once for all the social way of looking at mental states. No doubt in this Spencer was influenced by Comte.[1]

The genetic point of view, thus placed on a racial basis, remained somewhat formal with Spencer; in this he is in contrast with the extreme concreteness and empiricism of Darwin. In interpreting the actual mental life, Spencer retained the purely structural and associationist point of view. He extended the structural and analytic conceptions—the theory of mental "elements"—to a general "composition theory of mind," replacing Condillac's individual human statue by a racial animal colossus, so to speak. Beginning with a primitive sensation or "feeling," accompanied by an elementary nervous process or "shock," a series of compositions takes place, resulting in more and more compound states. All concrete mental states are compounds resolvable by analysis. The first departure from simple feeling is a feeling of the relation of feelings; the presentative passes into the representative, the representative into the re-representative, etc. Thus the process goes on.

The additional principle invoked is that of association. Here again Spencer simply transfers the recognised pattern of individual psychology to the larger canvas of race history. Association is the cement of the mind; it binds the elements into wholes, and makes of the compositions permanent complexes and com-

theory of natural selection, to which Darwin's *Origin of Species* was devoted, would hardly have appealed at once to one imbued, as Spencer was, with Lamarckism. This is confirmed, too, by Spencer's subsequent attitude toward natural selection.

[1] Spencer (*Principles of Sociology*) attempted to work out a system of sociology in the spirit of Comte's suggestion.

pounds. In thus rendering the mechanics of ideas in terms of association, Spencer remained true to the British tradition.

Spencer differed from the structural psychologist of to-day principally in being more thoroughgoing: he needed only one primitive element, they require generally two or three. With them he, too, used the analysis of chemical and biological synthesis to replace the looser union suggested by the laws of mechanics. But in this there is no real gain. In what we may call "the H_2O theory"—the chemical analogy—there is no recognition of a functional reaction of consciousness or of the self upon the mental content; no real progression or genesis is reached in the growing complexity of the compounds produced. The mental process, like its mechanical and chemical analogues, might as well move backwards. The modern choice of phrasing—"so much intellection, so much conation, and so much affection"—does not help the case. In their criticisms, the functional psychologists have shown the inadequacy of association, working on "elements," to accomplish mental synthesis. It is a poor sort of cement. Even those who eulogise it are prone to smuggle in, after the example of Hume, some disguised functional principle like habit.[1]

[1] In its result the composition theory and structural views in general, which seek to decompose mental states into elements lead to an analysis based upon the simpler conditions found in other sciences. In Spencer, this procedure was a habit of mind. Through his influence, mechanical analogies plagued biology, and biological analogies plagued sociology. It results everywhere in the "illusion of simplicity." The very flower and fruit of synthesis are lost in the counting of the *disjecta membra* of "elements." . . . Certain of Spencer's more special theories are noticed in the sections on Comparative and Affective Psychology just below.

It should be noted, however, that Spencer, a confessed Positivist, essentially revised the programme of Comte in respect to psychology. The independence and scientific integrity of psychology are recognised. The science is freed from the leading-strings of biology on the one hand, and from its service to sociology on the other; and stands in its true place between the sciences of life and those of society. This step the later history has fully justified; for psychology has since made more real and noteworthy scientific progress than sociology.

Animal and Comparative Psychology.[1]—It was natural to suppose that under the inspiration of the theory of evolution, various lines of observation would take on new interest; that the leading afforded by genuinely organising genetic principles, like those of Lamarck and Darwin, would result in directed scientific effort. This has been the case in animal psychology. The study of animals passed first from the "anecdotal stage" to that of close observation, that is, from mere story to "natural hsitory"; it then passed from observation to actual experiment.

The literature of the observation of animal habits and characters is rich and varied. The great naturalists, Buffon, Darwin, Wallace, lead off, following the lead of Aristotle. The works of Brehm, Romanes, Fabre, Hudson,[2] are among the best on the general habits of animals, considered from the psychological

[1] In this and the following sections dealing with special topics, it will be impossible to cite authorities in detail; apart from earlier writers, only works which give summaries will be cited, to guide the reader's further study.

[2] Brehm, *Das Tierleben*; Romanes, *Mental Evolution in Animals*; Hudson, *The Naturalist in La Plata.*

side; those of Espinas, Groos, Lloyd Morgan,[1] on special functions, interpreted by theories of psychological and social value. The new experimental method, pursued especially in the United States, raises the problems of comparative psychology, understood in the broadest sense. It attempts to apply actual experimentation to animals, from the lowest to the highest organisms—from the micro-organism to the monkey. Its results are, of course, of enhanced interest when the comparative point of view is extended from the animals to man.[2]

Leaving to the text-books the recital of the details of methods and results, we may point out the progress made toward the solution of certain of the older and more important problems.

Instinct.—The problem of instinct gave to the new genetic theories a bone to exercise their teeth upon. Instinct had been looked upon as conclusive evidence of the "special creation," each after its own kind, of the different species of animals; the instincts are common to species, and diverse from one species to another. Further, instinct was taken to prove "design" in nature. Nowhere else were devices to be found so cunning in their construction, and so apt for their

[1] Espinas, *Les Sociétés animales* (1877); Groos, *Die Spiele der Tiere* (1896); Ll. Morgan, *Animal Intelligence* and *Habit and Instinct* (1896).

[2] The need of objectivity and control has led to the emphasis of behaviour as such, and the "science of animal behaviour" tends to replace "animal psychology." Such a science would be in principle natural history over again—made experimental—much as Aristotle conceived it. If such a method is to yield psychological results, it must be made a means, a method of securing data for a true comparative psychology. For example, the object of experiments on the colour vision of animals is sensation, not behaviour.

purpose, as those brought into play by the animal instincts.

With the rise of the Lamarckian view of evolution the first "natural" and genetic account of instinct came forward.[1] It was held that with the passing down of acquired habits from generation to generation, these became fixed in the nervous structure; that is, they became instinctive. The bird builds its nest as it does because its ancestors learned consciously how to do so in the first instance. This function, acquired by experience, has been inherited and improved upon by countless generations, and has thus become native or innate. Finally, it has become a purely nervous function, requiring no antecedent experience on the part of the individual bird.

In this way all sorts of ancestral experiences were made available to later generations by the simple bridge of heredity, thrown across the chasm between parent and child. Reflex acts, the adaptations due to the "efforts" pointed out by Lamarck, the actual accommodations acquired by the intelligence and preserved by the experience of the forbears—all these are preserved in solid nervous connections, in the organisms of the individuals of the species. In this way, the individuals are endowed with instincts.

This is the psychological or Lamarckian account of instinct, called by Spencer, to whom its fullest statement is due, the "lapsed intelligence" theory. The instincts seem so intelligent because they once *were* intelligent; they were acquired by the aid of intelligence. It is only their nervous apparatus that has

[1] For a brief account of earlier observations on instinct see Miall, *History of Biology* (in this series), pp. 69 ff.

been conserved in the form of instinct; the intelligence, at first required, has lapsed, disappeared.

To this, the strict Darwinian theory, based on natural selection and denying the inheritance of acquired functions, opposes the theory of accumulated "variations." It is evident that if Lamarckian inheritance be disproved, or if it even remain unproved, the lapsed intelligence theory collapses completely. Apart from all questions of plausibility, this has been the result: recent biologists have almost unanimously discarded the inheritance of acquired actions, or so curtailed its scope that it is highly unsafe to give it any important place. Accordingly, except for vitalistic theories, such as that recently formulated by Bergson [1]—theories supposing in some form an intrinsic internal directive force in the life-process, by which functions are determined wholly or largely in independence of the action of the environment—the Darwinian theory is the only resource.

Recent advances due to fuller observation and experiment make an essentially Darwinian view less difficult to accept. The principle of social heredity or tradition, recently formulated,[2] rests upon observations which show the union of inherited and social activities in many functions formerly considered purely instinctive. By imitative or other processes of learning, the young of the various kinds acquire what has become a "social

[1] H. Bergson, *Évolution créatrice* (1907); Bergson holds that instinct is a sort of direct or "sympathetic" knowledge on the part of the animal, being in contrast with the "logical" form of knowledge seen in the intelligence.

[2] Spoken of again below in the section on Social Psychology; its recognition in animal activities was made by Wallace (*Darwinism*), Ll. Morgan (*Habit and Instinct*), and Weismann (*Studies in Heredity*).

tradition" in the species, thus supplementing the rudiments which are inborn. In many of the cries of animals, their special activities of feeding, play, nesting, etc., an inherited but incomplete impulse or tendency is perfected and made effective by acquired tradition, which is handed down from generation to generation, not as a physical but as a social heritage.

It results from this—and it is confirmed by independent observations—that animal instincts are in many instances not perfect and invariable functions, as the older observers supposed. There are many partial instincts—functions partially inborn—which owe their effective exercise to the supplementing and perfecting due to teaching, exercise, and experience. The influence of the presence of parents, family, and companions on the growing young of animals extends to some of the most vital functions of their life; and few instincts are entirely free from it.

These considerations relieve considerably the strain put upon natural selection in the Darwinian theory of instinct; since it is no longer called upon in such instances to account for the perfect, invariable, and precisely adapted instincts described by the older naturalists. Instead, its operation need extend only to that factor or part of the instinct which is actually inherited. Tradition, the social factor, does the rest.[1]

A further selectionist theory of instinct is made

[1] This is made the more evident, if it be true, as the theory of "organic selection" mentioned above maintains, that the accommodations resulting from learning, exercise, tradition, etc., screen and keep alive variations coincident in direction with themselves. In this case, the course of natural selection would be directly in the lines first marked out by intelligent, social, and other adaptations; and any stage of development of the innate factor would be effective if supplemented by acquired modifications, as the circumstances of the case might require.

possible—though it has not yet to my knowledge been suggested—by the new view of the nature and rôle of variations due to de Vries.[1] Instead of the minute variations supposed by Darwin, "fluctuating" in every direction, upon which natural selection was held to act, de Vries discovers in plants occasional marked variations or "mutations," which breed true, and seem to establish stable departures from type analogous to new varieties. If this should prove to be true in the animal world generally, it would be possible to suppose that instincts, or some of them, arose as mutations or wide variations—adaptive in character, and permanent in inheritance—kept alive by selection.

The late definitions of instinct hold to its distinguishing character as being an actual performance or act, not a mere innate impulse or disposition.[2] Impulses or dispositions may be "instinctive," in the broad sense of inborn; but an instinct, properly speaking, is an action, partly at least inherited, relatively complex, adaptive in character, and common to the members of a species. Or, defined negatively, it is a function which is not entirely learned from experience, not a simple reflex, not accidental or inadaptive, and not an individual performance.

Special Functions: Imitation.—Among the functions closely investigated of late is that of imitation. The older and vague view was that certain animals, such as the monkey and the mocking-bird, were given to capricious imitation; and that the child was notoriously imitative. Recent investigations have treated the func-

[1] M. de Vries, *Die Mutationslehre* (1901–1903).

[2] W. James uses the term instinct, however, somewhat loosely for all inherited impulses or propensities.

tion by observation, as it appears in the social life, and by experiment, as it is found in animals and children. In the result, the range of imitative activities has been both extended and restricted, as a clearer definition of the function itself has emerged.

If imitation be defined from the point of view of the mechanism of the imitative reaction, it takes on a very wide range. It may then be considered as a "circular" or self-repeating function; as when the young child repeats endlessly the "Ma-ma" sound that he hears himself make. This conception of imitation has an important place in pathology under the heading of "mimetism"; it appears in many pathological conditions, such as "echolalia," or mimetism of speech. The distinguishing point in this definition is that the stimulation which the act of imitation reproduces need not come from another individual. So far as the act is concerned, the result is the same if the stimulus is due to the action, or arises in the imagination, of the imitator himself. This opens the way for the inclusion of all sorts of auto-mimetic or self-imitative functions. Thus the notion of imitation is broadened. It extends to actions in low organisms which are circular or self-repeating, and also to conscious volitions, in which the imitation is directed toward an end set up in one's own mind. It thus becomes a unifying genetic principle of importance.[1]

The other extreme definition of imitation makes it essentially social, a "copying" of one individual by another. In this form, the function is emphasised in theories of social organisation and inter-psychology.[2]

[1] Cf. the writer's *Mental Development in the Child and the Race* (1895), Chap. IX ff.

[2] A term used by Tarde, *Les Lois de l'imitation* and *Les*

But this cannot be called either a psychological or a biological conception; since neither the point of view of consciousness nor that of organic behaviour discriminates the character of the source whence a stimulation proceeds. It is rather a sociological conception, and a concession to the popular idea of imitation as an act of personal copying.

The two conceptions may, of course, be held together, one marking a special case under the other. It is necessary, however, to indicate clearly the usage one adopts. In experiments on animals the second or sociological conception is usually adopted, such experiments turning upon the behaviour of one animal in the presence of another. Many experiments have been made on animal imitation as thus defined. The result has been to establish the fact that imitation varies remarkably with the species; also that whether it enters essentially into the animal's learning process—one animal profiting by what he sees or hears another do—varies with the grade of the animal's intelligence and with the complexity of the act. In many cases it is so obscured by gregarious habits and social instincts that its signs are very ambiguous. In the higher forms it is especially marked in functions peculiar to the species, in which a rudiment of native impulse in the direction of the function in question may well be supposed. An animal imitates another of his own species, where he would not imitate one of a different kind.[1]

Lois sociales (1898), both translated into English, for a restricted social psychology. Tarde upholds an extreme imitation theory of social organisation : see below, section on Social Psychology in Chapter VI.

[1] The literature of imitation gives many distinctions, such as "conscious," "unconscious," "subconscious," "plastic," "per-

As to its origin, the "instinct" theory of imitation accounts for it, as the instincts generally are accounted for, Lamarck-wise or Darwin-wise. It is opposed by those, among them Bain,[1] who consider the function acquired. The social or copying mode of imitation is considered by Wundt and others as a case of kinæsthesis—the prompting of a movement by the idea of that movement—since the copy may be looked upon as an idea which stirs up a kinæsthetic equivalent of the actual movement. The imitative type of reaction, however, psychologically and biologically considered as one that repeats itself through the reproduction of its own stimulation, is rooted more profoundly in organic conditions. It is seen in organic reaction to pleasurable and painful stimulation; the former being self-repeating, and the latter self-suppressing. On this view, as developed in the "circular reaction" theory, imitation has arisen from pleasure-pain or hedonic reactions which are fundamental to life.

Play.—Another function, common to animals and man, which has been taken out of the category of mere incidental action and shown to be a function of great utility, is that of play. Principally through the

sistent" imitation, etc. A curious phenomenon is that of "deferred" imitation, an example of which I may note here from a body of unpublished observations on West African gray parrots. The parrot seems to make no response whatever to a word repeated in his hearing, for his learning, for days or weeks; when suddenly he is heard uttering the word aloud, or mumbling it over to himself, when there is no copy given him. The stimulus, repeated so often, has a sort of cumulative effect, and after a period of incubation, so to speak, the imitation appears. This may well be called "deferred imitation." A peculiarity of it is that the fairly successful imitation is not preceded by grossly bungling attempts, although there may be a sort of internal practice before the articulate sound is made.

[1] Alexander Bain, *Senses and Intellect*, 3rd ed., pp. 413 ff.

important work of Gross,[1] the topic has become one of interest both to biology and to psychology.

Earlier theories regarded play as a sort of luxury of life, a bit of by-play. The theory of "recreation" gave play a certain utility, that of providing recuperation to exhausted faculties during the game; and the "surplus energy" theory worked out by Spencer, which made play a sort of "escape" or vent for stored-up animal energies, also gave it a certain value. But no theory till that of Gross assigned to it a really important genetic rôle in the economy of animal growth.

The "practice" theory of Gross considers play a mode of preliminary exercise of the powers of mind and body, which gives them essential practice under conditions free from the storm and stress of their serious exercise. The kitten teasing the ball of yarn is preparing itself to be the cat teasing the mouse. The dog playing at fighting and biting is exercising himself to be the victor in encounters in which dogs really fight and bite. This extends throughout all the playful activities of an animal species; curiously,[2] but on this theory reasonably, they show bungling and tentative imitations of the adult habits of the species. When all reserve as to details and minor qualifications are made, this theory seems likely to remain a permanent contribution to the list of real explanations.

Thus considered, play is a function of high utility. It may have—and probably does have, as other writers have shown—other utilities. It is socialising, it is purging of the energies, it is run through with dramatic

[1] K. Gross, *Die Spiele der Tiere* (1896), and *Die Spiele der Menschen* (1899), both translated into English.

[2] Sometimes a ludicrous exhibition, as the hopping and *kicking forward* of young kangaroos.

and æsthetic meaning. Moreover, it serves the purpose of the exhibition and testing of the powers and character of the individual person or self, in a remarkable way. It gives scope to the imagination, allows the free play of fancy. All these psychological utilities go with the biological, as described in the practice theory, and in no way contradict it.

The theory of play which thus describes its rôle and utility makes of it, along with imitation, a native impulse. The theories of its origin are those of imitation over again; and play and imitation are found together. Most plays are imitative, many consciously so. The connection would seem to have its own utility also; for if play is to have its rôle in practising adult activities, it must be directed in the line of those activities. This could be done only by the production of an instinct to play each function before using it seriously, or by a more general method of bringing the immature functions, all alike, under the dominion of the play impulse. The latter is nature's method, and imitation seems to be the means adopted. By imitating their adults, their own activities are practised by the young; and by playing naturally as their powers develop, they imitate the strenuous life. Gross sums the matter up in these words: "Instead of saying, the animals play because they are young, we must say, the animals have a youth in order that they may play." [1]

Play has also become the starting-point for new observations and theories in the psychology of æsthetic appreciation and art production. In play the rudiments

[1] It is on such correlations as this, and the truths they are based upon, that a new and "natural" pedagogy must be based. Educational theory and practice are already profiting by the recent advances in genetic psychology.

of self-exhibition, decoration, make-believe or semblance, and imaginative dramatisation appear, which grow up and flower in the æsthetic consciousness. Of this a further word below.[1]

Accommodation and Learning.—The process by which a new act is learned, a new accommodation effected, has been under very diligent investigation. The older theories were, here as elsewhere, lacking in experimental control; but they hit upon the theoretical alternatives which the newer work is placing in the light.

Apart from the purely "causal" theory—according to which the mind simply causes the movement of the body as it wishes, without having to learn how to do so—the "reflex" theory seemed the natural resort: the movement is always a reflex, or a compound of reflexes, brought out by the stimulus. Both in its amount and in its direction and character, the movement is the effect of a definite cause. This is the Cartesian "automaton" theory reinstated in physiological terms.

Opposed to this mechanical view various vitalistic solutions have been proposed. They all assume something in the life processes added to the mechanical response to the environment: certain internal processes which initiate, regulate, or, at the very least, complicate and delay, the responses made by the organism to stimulation.[2]

These three words—initiate, regulate, and complicate

[1] In the section on "Æsthetic Psychology," in Chapter VI.

[2] An elaborate defence of vitalism, based on general biological considerations, is to be found in H. Driesch, *Science and Philosophy of the Organism* (1907-1908).

—are used in this order with the intent to bring out the stages of gradual retreat of vitalistic conceptions, in view of the results of experimental research. Few hold to-day that the will or the soul can initiate a movement of the muscles in an absolute sense. No movement can be made outright, without learning and practice; to be made, it *must have been made.*[1] Accordingly it is held that a directive control over the energies released by the stimulus is exercised by the mind in its psycho-physical function; voluntary and even semi-automatic[2] movements have a degree of variability and uncertainty[3] that differentiates them, and removes them from the category of direct effects of given mechanical causes.

Not stopping to rehearse again the controversy on the mind-body relation, we may state the results of recent work. Experiments on low organisms have done little more than sharpen the issue and give it a new terminology, in spite of the evident extension of the scope of the mechanical point of view and the accumulation of many facts. The theory of tropisms[4] reduces the higher responses to complications of simple

[1] According to the principle of "kinæsthetic equivalents" established in brain-physiology and pathology, no movement can be made unless and until there is in the mind a memory, image, thought or other symbol equivalent to the movement, due to earlier experience of making it. Cf. the writer's *Dictionary of Philosophy and Psychology*, sub verbo. The term "kinæsthesis" ("feeling of movement") was first used by C. Bastian, *Brain as an Organ of Mind* (1880).

[2] A term due to Priestley, who used it to designate acts at first voluntary which have become habitual.

[3] The early distinction made by Avicenna between definite invariable and uncertain variable movements will be recalled. The latter were ascribed to the rational soul.

[4] A term suggested by J. Loeb to indicate a direct "turning" response of an organism or cell in response to external stimulation.

ones, mechanical in character. Except for new evidence, it amounts to a re-statement of the reflex theory, and the utility of the new word is not entirely evident.[1]

The opposition to this theory, made articulate in the work of Jennings,[2] points to the complicated internal processes, chemical and vital, which lie between the stimulus and the response, even in the simplest organisms; and holds that this central network of processes is the seat of the directive and complicating factor, whatever it may be. It is also the seat of consciousness, which seems to vary in degree and positive function with the apparent indeterminism of movement. The natural inference is that, whatever its final meaning may turn out to be, the presence of consciousness makes this link in the chain "psycho-physical," rather than purely "physical"; and this makes a difference. What difference?—just the difference we see between voluntary and reflex movements, between movements intended and directed as well as caused, and movements merely caused.

While, therefore, a remarkable showing of positive results has been made by experimental research on organisms high and low,[3] the outcome for general theory is so far a re-statement of the old theoretical alternatives. With this difference, however: it grows more and more difficult to hold to either alternative, mechanical or vitalistic, as being final. Hence it is

[1] Certain authors have rejected the term "tropism" on account of variation and ambiguity in its meaning.

[2] Jennings, *The Behaviour of Lower Organisms* (1906).

[3] Summaries of researches are to be found in Washburn's *The Animal Mind*, and Bohn's *La Naissance de l'Intelligence*. See also the reviews given annually in the "Comparative Psychology" issue of the *Psychological Bulletin*.

held by the advocates of a radical genetic point of view that the solution lies in the recognition of "genetic modes" or stages in the process of nature, which are *sui generis,* and each of which is a real advance, to be understood only in terms of its own characters or processes, not in terms of a simpler mode or by means of the scientific abstractions made to fit the simpler. The mechanical reading proceeds by the use of physical analogies; the vitalistic, by those drawn from consciousness and volition. Nature, however, achieves a union of the two which is psycho-physical; and our daily observation teaches us that neither the one analogy nor the other is adequate to symbolise it.

In the investigations, however, made on accommodation and learning, in the province of movement, a noteworthy advance has been made. It has been shown that the actual new adjustments which constitute the learning of a movement are, certainly in many cases, subject to the law of "trial and error" or "selection from over-produced movements." The animal tries with more or less success—actually less and then more —until he learns. The history of this principle, now probably safely proved, may be briefly indicated.[1]

In principle, as its early proposers recognised, it is an application of Darwin's law of selection. The movements of trial or "try-try again," varying in force and direction, are "cases"; and with the multiplication of cases, the chance of "happy hits"—a phrase used by Bain in discussing this topic—is increased. So looked upon, the problem was ably but somewhat abstractly discussed by Spencer, who postulated diffused discharges from the nervous centres, giving an over-

[1] Its antecedents are overlooked, as is often the case in the first flush of experimental success.

production of "random" movements in great variety —"fortuitous," in the Darwinian phrasing—of which certain are adaptive. These are subsequently carried out by a wave of "heightened nervous energy," which fixes a path of least resistance in the organism. In order to this, another important factor is necessary, and Spencer recognised it: a feeling of pleasure is connected with such successful and adaptive movements, which, by association with the pleasure, are repeated and made permanent.

Bain brought to the problem the idea of "native spontaneity," a primitive tendency to movement with which, on his view, all life is endowed. Movement precedes sensation. It is from this store of original, restless, overflowing activities that adaptive movements are selected. He adopted the idea that pleasure and pain regulated the selection. In his phrase, pleasure "clinches" the adaptive action and by association makes it permanent through repetition. The order of the factors, in the view of Bain, is as follows: "random movement, pleasure, memory of pleasure with memory of movement, adapted movement." [1] Bain recognised [2] that all the essential factors of his theory had been named by Spencer; but Bain's treatment is more concrete and convincing.

It is upon this background of theory that the law of "trial and error" emerges from experimental research.

[1] Quoted from the writer's summing up of a more detailed exposition in another place (*Mental Development in the Child and the Race*), Chap. VII, 3rd ed., p. 173, where it is pointed out that it is the pleasure that is the original term—if not the first in time —since it is not a repetition of the movement as such, but of the pleasure and its conditions, that gives utility to the reaction and furnishes evidence of the adaptation.

[2] Bain, *Emotions and Will*, 3rd ed. (1888), pp. 318 f.

It re-states, so far as the method of performing and singling out the successful movement is concerned, the law of "functional or excess selection from over-produced movements." It brings the learning process into line with other cases of the production of apparently directed results selected from ill-assorted data. "Trial and error" is a phrase used in the mathematical treatment of chances. Experimental research, however, has not yet answered the other questions involved: what is it that constitutes the act an adaptation?—and what clinches or preserves such movements rather than those which are suppressed? To these questions, the Spencer-Bain theory in some form still supplies the only answer—pleasure and pain.

The proof of this law through experiment, however, carries the application of Darwinian selection into a new and unexpected field. Its application is possible and has been made to voluntary no less than to merely responsive movements.[1]

Experiments have been made upon various aspects of learning, understood in the larger pedagogical sense. They extend from the conditions of memorising to those of conscious relating and apperceiving. A much disputed question is as to whether the discipline of one faculty improves others—the old question of "formal training"—and more generally as to what are the laws ruling the correlation of the faculties.[2]

Experiments on children have come to supplement observation, in the pursuit of Child Study, another line

[1] "The Origin of Volition in Childhood," *Proc. Inter. Cong. of Psychol.*, London, 1902, reproduced in the author's *Fragments in Philosophy and Science*, Chap. VIII.

[2] See P. Barth, *Die Elemente der Erziehungs- und Unterrichtslehre* (1906).

of genetic work. Biographies, diaries, "questionnaires," experimental studies, theoretical interpretations, have all taken on a more serious and scientific look since the day of the publication of Darwin's and Preyer's careful observations.[1] While not of startling theoretical importance, the results have justified the genetic method and reinforced its data.[2] Serious treatment of certain of the larger questions involved in the psychology and biology of the growing individual are to be found in such works as that of Hall on adolescence.[3]

[1] Ch. Darwin, "Biographical Sketch of an Infant," *Mind*, O.S., II, pp. 285 ff.; W. Preyer, *Die Seele des Kindes* (4th ed., 1895).

[2] For a recent setting together of results see the work of Claparède, *La Psychologie de l'enfant et la Pédagogie expérimentale* (1908).

[3] G. S. Hall, *Adolescence* (1905).

Chapter VI.

Scientific Psychology in the Nineteenth Century and Beyond. III. Special Lines of Work (concluded).

I. *Social Psychology.*—Psychology has reflected the collectivistic tendency generally noticeable in late nineteenth-century thought. This tendency showed itself in certain well-marked movements. It appeared in evolution theory—as Darwinism worked its way beyond the biological sciences as such—in the substitution of the group for the individual, in cases of selection in which the utility subserved was collective. It was seen that social utility may replace individual advantage; that group competition may succeed to personal rivalry; that the "good of the whole" may be better than the "good of all." It appeared further in political theory in Hegel's view of the State,[1] in the stirring of the ferment of Rousseau's doctrines, and in the beginnings of Socialism.[2] In the matter of scientific method, Comte's Positivism was its vehicle; and the science of sociology, as projected by Comte, was to explain the theory, as well as apply the method, in the domains represented by social science and psychology.

In psychology, it became potent in consequence of the criticism of theories based on the concept of an isolated individual. The English "moral philosophy" had pointed out the power of sympathy and altruism,

[1] Hegel, *Die Philosophie des Rechts* (1833).

[2] The first edition of Vol. I of Marx's *Das Kapital* appeared in 1867.

as against self-love, and the inherent strength of the collective instincts and springs of action. The affective motives were shown to run athwart the intellectual, as represented by the law of association of ideas, which had been formulated as a principle working within the individual mind. Meanwhile the sociologists were meeting with downright failure and suffering discredit, in their attempts to found a social science upon an un-social psychology. The "sociology" of the biological analogy, that of the struggle for existence, that of imitation, opposition, and repetition, that of the compounding of sensations, desires, and beliefs,[1] that of the association of ideas used to explain the association of human beings —all these more or less futile sociologies put in evidence the need of a psychological theory of the social individual. The motives of collectivism clearly expressed in Darwin's theories of instinct, emotion, and morals were held in check by Spencer's ambitious pre-emption of the field of social science with a construction motived by individualism and founded on association. Moreover, the disciples of Comte, in England at least, spent their energies on practical questions and measures and on the negative criticism of metaphysics.

In England, too, the hindering influence of the theory of association was seen at work in the Oxford school of anthropologists. In Tylor[2] and Max Müller alike, dissimilar as they are, the psychology of primitive man is read in terms of that of the civilised; and this largely by means of the common and universal operation of association.

[1] The search for the "elementary social fact" has been analogous in sociology to that for the original "element" in psychology.

[2] E. B. Tylor, *Primitive Culture* (1871); M. Müller, *Science of Religion* (1870).

The need became apparent for a genetic and social psychology, which would reveal the state of the individual mind in given social conditions; the relation, that is, between individual and collective "representation," to extend somewhat the phraseology of the French writers referred to in the discussion of primitive thought.[1]

Put in Kantian form, the question of social psychology is this: How is a social subject or self possible? Is he a socialised individual self, or is he an individualised social self? The outcome of social psychology until now points plainly to a negative answer to the first, and a positive answer to the second, of these questions. It thus reverses the point of view of historical individualism, and gives collectivism its *point d'appui* in the processes of mental development itself.

The larger results upon which this verdict is based may be stated in order; in this way the present status and programme of social psychology will be brought out.

(1) The matter of "tradition" has been cleared up. It has already been pointed out that a true social heredity is to be recognised among animals, running parallel to physical heredity and supplementing it. In human groups this is enormously developed in what we call "culture," a body of beliefs, usages, and sanctions transmitted entirely by social means, and administered to growing individuals by example, precept, and discipline.[2] This constitutes the social store, the collective

[1] Chapter II. of Vol. I.

[2] In certain extreme statements of this view, society is made an organ of constraint, a sort of new Leviathan, by which individuality as such is crushed out. See Durkheim, *Le Suicide*, and cf. Maudsley, *Physiology* and *Pathology of Mind*.

wealth of the group, its moral heritage. It constitutes the *milieu,* a body of influences which are necessary to the development of the individual mind. Such functions as language, spoken and written, play and art; such inventions as fire, building, and weaving, are not only conveniences of life; they are necessary means of growth. What sort of a being would develop without them? Just the primitive truncated being we actually find in the rudest men, only worse. The analogy of the immature child, born physically before its period, is more than a figure.

The society into which the child is born is, therefore, not to be conceived merely as a loose aggregate, made up of a number of biological individuals. It is rather a body of mental products, an established network of psychical relationships. By this the new person is moulded and shaped to his maturity. He enters into this network as a new cell in the social tissue,[1] joining in its movement, revealing its nature, and contributing to its growth.[2] It is literally a tissue, psychological

[1] A phrase used by L. Stephen in *Science of Ethics.*

[2] Certain of the books in which this and the following points are discussed from different points of view are Bosanquet, *Philosophical Theory of the State* (2nd ed.); G. Simmel, *Soziologie* (1908); P. Barth, *Die Philosophie der Geschichte als Soziologie* (1906); Lacombe, *De l'Histoire considérée comme science* (1894); Tarde, *La Logique sociale* (1893), and *Études de psychologie sociale* (1898); Ribot, *La Logique des Sentiments;* Guyau, *Éducation et Hérédité* and *Esquisse d'une Morale.* The point of view of collective psychology was carried into ethical discussion in England by S. Alexander, *Moral Order and Progress* (1889), and L. Stephen, *The Science of Ethics* (1882); see also Ormond, *The Foundations of Knowledge* (1900), and Dewey and Tufts, *Ethics* (1908). The terminology in this field is not well developed. I follow that employed in my work *Social and Ethical Interpretations* (1897); certain of the terms—such as "socius," "social heredity," "social situation," "social dialectic," etc., have now been widely adopted. There are no general summaries of

in character, in the development of which the new individual is differentiated. He does not *enter into it* as an individual; on the contrary, he is only an individual when he *comes out of it*—by a process of "budding" or "cell-division," to pursue the physiological analogy. Society is a mass of mental and moral states and values, which perpetuates itself in individual persons. In the personal self, the social is individualised.

(2) The more specific task of social psychology then appears. It is that of tracing out the internal development of the individual mind, its progressive endowment with individuality, under the constant stimulation of its *entourage*, and with nourishment drawn from it. A constant give-and-take process—a "social dialectic"—is found between the individual and his social fellows. By this process the materials of self-hood are absorbed and assimilated. The "self" is a gradually forming nucleus within the mind; a mass of feeling, effort, and knowledge. It grows in feeling by contagion, in knowledge by imitation, in will by opposition and obedience. The outline of the individual gradually appears, and at every stage it shows the pattern of the social situation in which it becomes constantly a more and more adequate and competent unit. This process the social psychologist has patiently traced out; and apart from details, on which opinions differ, it constitutes a positive gain to our knowledge.

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results; the *Introduction to Social Psychology* by McDougall (1908) comes perhaps nearest to it, though it is also a first-hand study of the problems. See also Ellwood, *Sociology in its Psychological Aspects* (1912). The annual "Social Psychology" issues of the *Psycholog. Bulletin* may be consulted; and the select lists of titles given in the *Dict. of Philos. and Psych., sub verbis.*

The consciousness of the self, thus developed, carries with it that of the "alter"-selves, the other "socii," who are also determinations of the same social matter. The bond, therefore, that binds the members of the group together is reflected in the self-consciousness of each member. The external social organisation in which each has a certain *status* is reinstated in the thought of the individual. It becomes for each a psychological situation constituted by selves or agents, in which each shares the duties and rights common to the group. Upon the background of commonness of nature and community of interests the specific motives of reflective individuality—self-assertion, rivalry, altruism—are projected; but they are fruits of self-consciousness, they are not the motives that exclusively determine its form.[1] All through its history, individualism is tempered by the collective conditions of its origin.

When the self has become a conscious and active person, we may say that the mental individual as such is born. But the individual remains part of the whole out of which he has arisen, a whole that is collective in character and of which he is a specification. He lives and moves and has his being still in a system of collective facts and values. He is a "socius," an element in a social network or situation; only by this can his individuality and independence become possible or have any meaning. In this new sense is the Aristotelian dictum confirmed—"man is a social animal." But we may express the whole truth more adequately by saying that man is *a society individualised;* for in the new

[1] Of course, the instinctive self-seeking and egoistic motives are present along with the social from the start.

individual society comes always to a new expression of itself.[1]

(3) Once introduced, the inch develops into the ell. The social strain in the normal working of most of the mental functions has been made out. Biological intimations of social conditions have been pointed out in bashfulness, organic sympathy, gregarious impulses, etc. Apart from the specific means by which the processes of socialising and training go on—contagion, imitation,[2] play, sympathy, obedience, language, moral sense, etc.—the element of "community" has been found to extend to the operations considered by earlier thinkers the most individualistic. Self-love is never free from a colouring of sympathy, invention rests upon imitation, rebellion involves the recognition of the rights of others, rivalry is a form of co-operation. Thought no less than life is shot through with the motive of collectivism. Opinion is formed on social models, social authority precedes logical validity, private judgment is never really private. Even in the processes of deductive reasoning, funda-

[1] There is room here for a great diversity in philosophical interpretation. The Positivist, seeing his collectivism confirmed, rests with satisfaction upon his oars, or seeks to carry out a socialistic programme. The Spiritualist finds the social dialectic merely a drawing out or education of the social "faculties" of the soul, born with the body. The Hegelian finds in it empirical evidence of the wider dialectic of the absolute Self coming to consciousness in man. To one who holds the radically genetic point of view it is a process of new formation, a formative process *sui generis*. The self is made out of social ingredients. Without them the inherited mental characters would have no chance to complete themselves in a person. As in other cases of radical genesis, the outcome cannot be reduced to its elements or explained by them; it is a new "genetic mode" of reality.

[2] An early anticipation of the place of imitation in social life is to be found in Bagehot, *Physics and Politics* (1872).

mental social conditions of genesis are never wholly concealed: the "proposition" is a social "proposal" or suggestion; the conclusion is held to be valid for all persons as well as for all cases; even the constructive categories of thought are founded on racial experience ingrained in individual endowment. There is a synnomic force in all reflective thought, in all science.[1]

II. *Affective Psychology.*—Under this heading we may place for our present purposes the psychology of the functions which are included under the "motive powers" of the Scottish writers and the *Gemüth* of the Germans: the general phenomena of feeling and will.

[1] This has become more and more plain as the "psychologising" of logic has gone on in a series of works in which thought has been treated not merely formally, as of old, but as an actual instrument: the "Logics" of Lotze, Sigwart, Erdmann, Wundt, Bradley. In English this movement has been contributed to by Venn, *Empirical Logic* (1889), and Jevons, *Principles of Science* (1873). See also R. Adamson, *The Development of Modern Philosophy*, Vol. II (1903). Psychologies which show this tendency are those of Jodl, *Lehrbuch der Psychologie* (1896); Brentano, *Psychologie*, Vol. I (1874); James, *Principles of Psychology* (1901), and Baldwin, *Handbook of Psychology*, Vol. I (1889) and *Experimental Logic*, Vol. II of *Thought and Things* (1908). The theory of judgment has become the storm centre, since Brentano announced his view that judgment is an original function. In the outcome, the Aristotelian logic has lost much of its importance; it has been driven to interpret the formal elements of thought either, on the one hand, as symbols of an absolute principle, with Hegel; or, on the other hand, as symbols of mere logical and mathematical relationship, with the "symbolic" and algebraic logicians. Symbolic logic in the latter sense was founded by Boole, *An Investigation of the Laws of Thought* (1854). The movement of "psychologism" has been further accentuated since the impulse of the genetic point of view has been added to that of the psychological, in the later treatises of the pragmatic school. A note on "Psychologismus" is to be found in Klemm, *Geschichte der Psychologie*, pp. 165 ff; the reaction against it in Germany is led by Husserl, *Logische Untersuchungen* (1901–1902).

The recent advances made in these subjects are important, but not surprising, seeing that in the historical development of theories they have been neglected. Knowledge and thought have had a "trust."

The Kinæsthetic Theory.—For Locke and the French spiritualists the "sense of effort" was the citadel of the inner life. It was connected with mental activity because it seemed to be the channel by which mental initiative expressed itself. The outgoing nervous currents were its agents in moving the muscles.

This was formulated in the "innervation theory" of effort. According to a group of writers, of whom Wundt[1] remained long the protagonist, the seat of physical effort was the centre of actual discharge of energy from the brain, the process being the "innervation" of this centre; in straining to move the arm, and succeeding, we feel the motor or "efferent" energy passing out, proportional in quantity to the effort made.

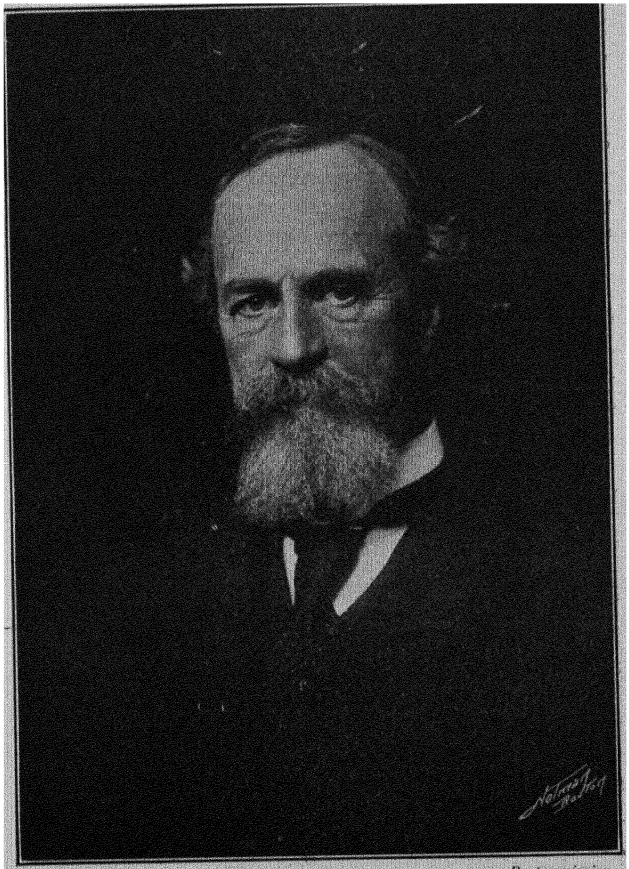
Bastian[2] and James radically disputed this theory. It was declared that effort was sensational, due, like other sensations, to "incoming" or "afferent" currents, to peripheral excitation. Various sensational accompaniments were pointed out in the muscles of the throat, scalp, and organs affected, without which the particular effort could not be made.

The experimental examination of muscular sensation in general came to reinforce this contention. It was confirmed also by phenomena observed in troubles of speech and writing.[3] This view, known as the kin-

[1] W. Wundt, *Grundzüge der physiologischen Psychologie*, 1st ed.; in later editions Wundt has gradually modified his view, attempting, however, to save his "terminology" (see 6th ed., 1908–1910).

[2] Charlton Bastian, *Brain as an Organ of Mind* (1880), who suggested the term "kinæsthesis"; W. James, *The Sense of Effort* (1880).

[3] See E. Stricker, *Über die Bewegungsvorstellungen* (1882), and



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WILLIAM JAMES.

æsthetic or peripheral theory, in opposition to the innervation or central theory, has gradually come to prevail. Effort is always directed in certain channels; and what we feel is the incipient stirring up of the sensational processes involved in the muscular action effected by means of these channels.

Late discussion, moreover, shows that the feeling of outgoing energy is not necessary for the grounding of spiritualism. The consciousness of effort remains the same in any case. The "outgoing" or discharge of energy is as much a physical process as the "incoming"; it amounts to what a group of recent sensationalist writers have called "centrally initiated sensation"[1] —the differences characteristic of central states being concealed under the term sensation.

The kinæsthetic point of view rapidly extended itself. Thanks largely to pathological cases and to medical research in aphasia, paralysis, hysteria, etc., it came to be applied to voluntary movement as a whole, as has been indicated above. In the theory of muscular movement, based on kinæsthesis, it is contended that a sign, image, or "cue" immediately or remotely[2] equivalent to sensations of movement must be in the mind before the will to move can take form in concrete effort or issue in movement. The effective "idea" of how the movement "feels" must be present to start the energies of actual movement. This equivalent "idea" is a mass of kinæsthetic reverberations due to earlier movements.

Über die Sprachvorstellungen (1880), and the literature of the "internal speech" and volition, summarised in the writer's *Mental Development in the Child and the Race*, Chaps. XIV (especially) and XIII.

[1] See Külpe, *Grundriss der Psychologie* (1893).

[2] See James' later discussion. *Principles of Psychology* (1890), chapter on "Will."

The applications of the principle were not yet finished, however. Two writers, C. Lange[1] and W. James, applied it about the same time to emotional expression and to emotion itself.

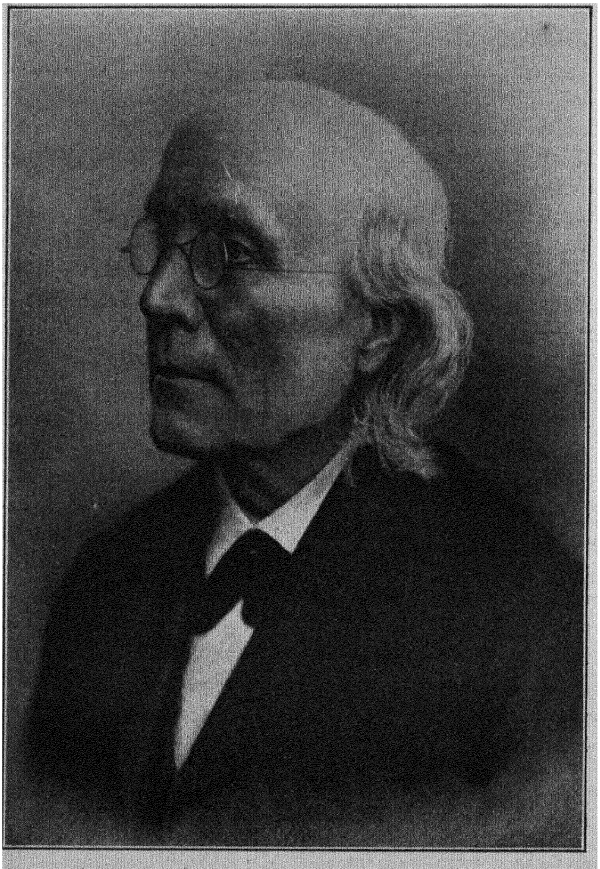
The theory of "emotional expression" announced by Darwin in his book on the subject[2] started new interest in the life of feeling. It established an important link in the Darwinian chain binding man to the animals. To Darwin all emotional expressions—seen at their best in facial expression—were either (1) survivals of "serviceable associated habits," (2) movements antithetic to these habits, (3) or movements resulting from "direct nervous discharge." On these three cases his three laws of expression were based. That of "serviceable associated habits" was the revolutionary one. It recognised, in the great fixed expressions accompanying emotion, useful defensive and offensive actions, acquired by the animal in crises involving high emotion. The expression of fear, for example, is what remains of actions found serviceable by the animals in conditions occasioning fear; that is, in danger of some kind. This principle was concretely demonstrated by Darwin, and is rarely disputed to-day.[3]

The further application of kinæsthesis consisted in saying that all consciousness of emotional expression, like that of effort, is kinæsthetic or afferent in its

[1] C. Lange, *Über Gemütsbewegungen* (German translation, 1887, from the Danish); James, *Mind*, ix, 1884, and *Principles of Psychology* (1890). James' later revised formulation is to be found in the *Psychological Review*, I, Sept. 1894.

[2] Ch. Darwin, *The Expression of Emotion in Man and Animals*. Other works on expression are Bell, *The Anatomy of Expression*; Mantegazza, *Physiognomy and Expression*; Mosso, *Fear*.

[3] Darwin's other laws are in dispute, especially that of "antithesis." The "direct" nervous discharges of a convulsive confused sort, produced in conditions of strong emotion, seem to be general phenomena of intensity and overflow of a kind



GUSTAV THEODOR FECHNER.

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nervous basis; and, further, that this consciousness is no more nor less than the emotion itself. In experiencing an emotion, we are conscious of the incipient stirring up of a mass of expression. This would mean that instead of having an emotion and acquiring its expression by the law of associated habits, one should say that the habits acquired by the animals in defence and offence have left after-effects which are felt as emotion.

This has been widely admitted for the "coarser" inherited expressions. James' last pronouncement tended to limit it to these. The higher emotions and sentiments, intellectual, æsthetic, etc., which have less evident expression, are in dispute.[1] It would seem that if the emotion is due to a previously established adaptive and serviceable action, some principle of direct excess-discharge, such as that supposed by Darwin and Bain, would have to be assumed to account for this adaptation; and in that case we may say that this discharge may be a factor which in its nervous seat, and possibly also in consciousness, is not kinæsthetic.[2]

The importance of the kinæsthetic principle, however, is undisputed. It results in handing over the entire body of movements, both voluntary and involuntary, and much of the life of feeling, to the sensationalist

which the principle of "dynamo-genesis" would lead us to expect. So far as this leads to new accommodations, it recalls the "excess discharges" and "overproduced movements" made use of in the Spencer-Bain theory explained above.

[1] A thorough discussion is to be found in Lehmann, *Die Hauptgesetze des menschlichen Gefühlslebens* (1892). Recent experimental results on feeling are discussed by Titchener, *Elementary Psychology of Feeling and Attention* (1908).

[2] Bastian, an English physician, the first kinæsthetic extremist, so to speak, does not generally receive due credit. He held that the brain-centres usually called "motor" are not discharge centres, but centres of "kinæsthesis."

theory. The motor consciousness becomes one of sensations of movement and their reinstatement; and sensations of movement are merely a special class, or number of classes, like those of sight and hearing.[1] The theory of mental activity and spiritual reality must find its claim elsewhere than in the superficial sense of activity which accompanies muscular movement.

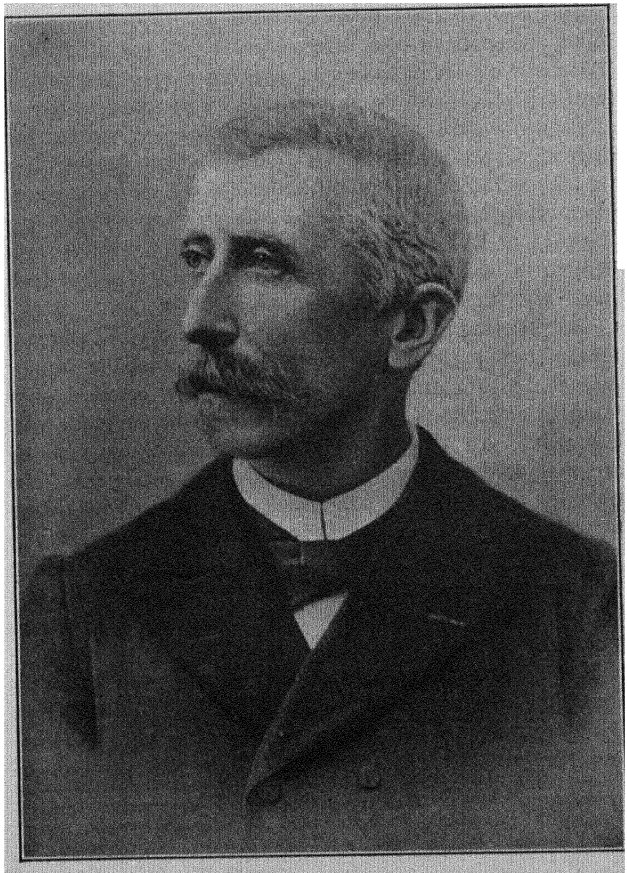
As further result, the theory that considers emotions as compounded of pleasures and pains receives its death-blow; as also does the intellectualist theory, according to which all emotion is due to the play of ideas.

Later analysis distinguished feeling from sensation. Physical pain has been isolated as a sensation; mental discomfort remains a feeling. Bain found feeling to reside in a certain ruffling or "exciting" effect upon consciousness. Mere consciousness itself is looked upon by many as feeling. One "feels," as Bradley holds, the operation of each and all the functions alike; feeling is then identified with "immediacy" to consciousness, or with mere subjectivity.

A broad formulation justifies the use of the terms "affection" and "affective" as applying both to concrete feelings or emotions (called "objective feelings") and to cases in which conditions of consciousness or the self are directly reflected ("subjective feelings"). Between these extremes lie the more vague qualitative sentiments, moods, etc., in which the objective conditions are less definite.[2]

[1] Experimental analysis has shown that the tactile-muscular group of sensations includes several sense-qualities which probably have distinct nervous elements, *i. e.*, "pressure" sensations, "joint" sensations, "temperature" sensations, as well as sensations of "touch" and "muscular contraction."

[2] So far from lending itself to a theory of an ultimate "element" known as "affection," this latter term is justified only



TH. RIBOT.

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[From Baldwin's *History of Psychology*, Watts & Co., 1913.]

Affective Revival and Affective Logic.—The movement away from the intellectualist theory of feeling has assumed the proportions of a thoroughgoing revolt, led by Ribot. Ribot asserted not only that feeling—emotion, sentiment, etc.—was an original state, not dependent on presentation; but also that feeling had its own independent revival (*mémoire affective*), association, and generalisation (*logique affective*). There is a "logic," a series of imaginative and subsumptive processes, in which feelings—not ideas nor "ideas of feeling," but feelings themselves—are the subject-matter.[1]

The bearing of this appears as soon as the current intellectualist theory of revival is recalled to mind. According to it only states of knowledge, consisting of images, cognitions, relations, etc., can be revived. All memories are cognitive; only presentations can be recalled as representations. This means that the memory of a feeling or emotion is never produced directly, but always by means of the memory of the thing, idea, or bit of knowledge to which the feeling was earlier attached. The feeling is, therefore, new, and not revived; it attaches to an old cognition; it is never the reproduction of an old feeling.

This seems on the surface artificial and unlikely enough; but it "went without saying" until Ribot challenged it. Since then a variety of analyses, facts, and arguments[2] have established, in the opinion of

by reason of its extreme abstractness and generality. Indeed, "affection" has about the same relation to concrete "affections" that "feeling" has to "feelings."

[1] This may well be called the "autonomous" theory of feeling, in contrast with "intellectual" and "organic" theories.

[2] Principally in French: see Ribot, *La Logique des Sentiments* (1904), and *Problèmes de la Psychologie affective* (1909); Paulhan, *La Fonction de la mémoire, etc.* (1904); Dauriac, *Essai sur l'esprit musical* (1904); various authors in the *Revue philosophique* for recent years.

many; the truth of affective revival; and its bearings are beginning to be worked out, with fruitful results, in a wide range of topics.[1] Those who accept it hold, in principle, (1) that feelings are directly remembered and associated; (2) that they are subject to a sort of "generalisation" in moods or sentiments; and (3) that in the general form they are available for more or less complex processes of description, intercourse, ejection, etc., in a way that presents analogies with the logic of concepts. Feeling has its "logic."

If this logic of feeling is founded in the active life, as some of its advocates hold, the theory joins hands with the motor and habit theories of generalisation, attention, synthesis, interest, etc., worked out by the functional psychologists.[2] In this wider movement, Ribot was also one of the pioneers.[3]

Animism and Ejective Processes.—The ghost of animism has haunted the psychological house ever since the corner-stone of the structure was laid by the Greeks. Beginning with mystic "participation" and

[1] Such as those of "valuation," "common" emotion, "community" in morals and art, etc.

[2] The extension of the idea of "affective memory," like that of the kinæsthetic, seems to be "destined." It is fit to survive; no doubt in part on account of the extreme unfitness of the intellectual theory, which breaks down in many fields. Musical phenomena, and those of fine art generally, furnish rich data, the more because these sentiments have never had any plausible theoretical treatment. The present writer feels free to say this because of his own conversion to the affective theory, occurring between the publication of the "theory of social matter" based on intellectualism (*Social and Ethical Interpretations*, 4th ed., 1906, Chap. XII), and that of the "logic of practice" (*Interest and Art*, Vol. III of *Thought and Things*, Chaps. VI and VII), where the logic of feeling and interest is accepted and extended. The literature, apart from the French writers cited, is not extensive: see Urban, *Valuation, Its Nature and Laws* (1909), and *Psychological Review*, VIII, Nos. 3 and 4, and the literature of Valuation (both *pro* and *con*).

[3] Ribot, *La Psychologie de l'attention* (1895).

occult "possession," as revealed by the anthropologists and students of human culture, it passed into the "pan-psychism" and "anthropomorphism" of early speculation, as narrated by the historians, and became popular in the religious dogmas of "transmigration" and "demon-worship," as recorded in many sacred books. The history of psychology down to Descartes shows, as we have seen, a prolonged effort to restrict the sphere of the mind-term of what became at last a strict dualism of substances.[1]

As with the other spontaneous solutions of the riddle of the world, animism recurred in the reflection of later philosophy, in the form of reasoned pan-psychism and psychic atomism. The grounding of such positions, however, had to be more secure than that given to animism in early social tradition and religious faith. The result took form both in attempts to account for the tendency to "animate" nature—to find the motive of animism in general—and in attempts to find out how much truth it really embodies. Allow to primitive man definite motives for believing in the soul-life, the *Beseelung*, of nature, how far, it is then asked, is he right in doing so?

This distinction of questions is brought out in one of the influential theories of recent times, the theory of "introjection" of Avenarius.[2] This writer finds in animism a necessary and universal procedure for the apprehension of the world, having its roots in social situations and extending to animal life. The dog that

[1] A historical account and appreciation of animism is given in W. McDougall's *Body and Mind, a History and a Defence of Animism* (1911).

[2] Richard Avenarius, *Der menschliche Weltbegriff* (1891); see also his *Kritik der reinen Erfahrung* (1888–1890).

sees another dog eyeing the same bone with himself acts in a manner to show that he finds in the second dog a sort of mind. In some crude way he apprehends the other dog as having the character we call mental. He is, then, in so far animistic. This appears in the jealousy of animals, sometimes directed even toward inanimate things. This is "introjection."

On this view, the presence of animism in early societies and in the earliest speculation is well-motived and necessary. Its universality as reported by the anthropologists would lead us to expect this. It is further supported by the fact that there is in social and individual thought, alike, a "projective" period in which the first panoramic apprehension of things sees them as in movement, as-if-animate, not as dead and still.[1] A sort of mind-meaning is projected into things.

Avenarius answers the second question also. He finds that although introjection or animism is necessary, in the development of thought, it is none the less mistaken. The world is not what the animistic interpretation takes it to be. It is the business of reflection to correct it, by a re-interpretation of the phenomena on which it is based. In other words, after the development of dualism there comes always historically the interpretation of dualism; an interpretation extending to the genetic motives by which the dualism itself was created.

One of these interpretations (not that supported by Avenarius, however[2]) looks upon animism as a stage

[1] The term "projective" is freer than "introjection" from positive implications, and also from the further special bearings given to introjection by Avenarius.

[2] Avenarius' interpretation is based upon an experiential criti-

in the evolution of thought, not necessarily wrong, certainly not illusional, but relatively crude; a first interpretation.

The vitality of the animistic position is seen in its recent history. It still lives in its mystic and occult forms as a psychosophy, no less than in philosophical and psychological theories. We have with us the emotional and mystical spiritists, as well as those who reach the same conclusion by way of "psychic research," the revelations of "telepathy," or other more or less serious methods. A remarkable outbreak of psychosophy or occultism, together with earnest attempts to deal with its problems scientifically, has marked the history of the last generation.[1]

Alterations of Personality and the Unconscious.— A departure of more evident scientific importance, bearing on the question of the unity of the mental principle, is found in research in the field of double and multiple personality. Beginning with the investigation of hysterical patients whose field of personal consciousness was much restricted, through the loss of

cism, *Empiriocriticismus*, of the whole of experience considered as a system; see the *Kritik der reinen Erfahrung*. This has been developed by Rehmke, Höfler, and other writers of the "immanental" school, who have emphasised the presence of "form" in mental operations. To them "form-quality" *Gestaltsqualität*, extends not merely to formal rules or norms, but exists in actual qualities in consciousness; such as the identical form of the same melody when rendered in different keys (J. Rehmke, *Lehrbuch der allgemeinen Psychologie*, 2nd ed., 1905; H. Höfler, *Psychologie*, 1897).

[1] As to the results, opinions differ from the negative of most of the professional psychologists to the more favourable verdict of those who think that the separate existence of the soul and its immortality have been scientifically demonstrated. See *Proceedings of the Society for Psychical Research* (1882 ff.); also Hyslop, *Problems of Psychical Research* (1909).

sensibility in localised areas of touch, vision, etc.,[1] it extended to the observation of trance conditions, in which alternating or simultaneous personalities appeared in the same living body. Among the most remarkable cases are those reported by Flournoy and Prince.[2] It has been shown that portions of the nervous system may function in relative isolation and detachment, the disturbance showing itself in the presence of partial mental aggregates which tend, in James' phrase, to "take on personal form." Interpretations of these parts vary from the purely physiological to the psychological and spiritistic. The advocates of pan-psychism explain it by the hypothesis of elementary psychic or "soul" properties, supposed to attach to each living cell or unit of the body. Materialists find in it evidence of a real disintegration or decomposition of mind, the normal unit personality giving evidence merely of the larger unity of organisation of the brain.[3] A radically functional view of mind sees in these phenomena merely the consequence of psycho-physical parallelism. If, it may be asked, binocular vision can be so deranged that the two eyes see "double," why may not the same be true of any more or less distinct portions of the nervous system?—assuming, that is, that each preserves its own functional integrity.

A secondary result appears in the new light these facts throw upon the question of the unconscious. In the cases cited, evidently, the sensations, memories,

[1] Binet and Féré, *Animal Magnetism* (1886); Binet, *Altérations de la personalité* (1892), in English translation; Janet, *L'Automatisme psychologique* (1889). In these investigations, hypnotism proved to be a valuable instrument.

[2] Flournoy, *From India to the Planet Mars* (3rd ed, 1910); M. Prince, *The Dissociation of a Personality* (1905).

[3] See H. Maudsley, *Body and Mind* (2nd ed., 1873).

etc., which are outside the "primary" or normal consciousness are not really unconscious; they are present in a subsidiary or "secondary" consciousness, so far as they remain mental at all.

Ejection and Semblance.—A new form taken on by the animistic concept has appeared in modern discussion of religion, in the theory of the "eject." The English positivist, Clifford,[1] defined God as the form in which the human mind "ejects" its own being or self out into the world. The human self, at each stage of culture, is idealised and set up as a personal object of worship. God becomes, in the phrase of Romanes, the "world-eject"; like the world-soul of the ancients, it is a projection on a larger canvas of the image of the human soul.[2] God is made in the image of man rather than man in the image of God.

The hypothesis of ejection has worked forward to suggest exact empirical research, as well as backward to confirm the studies of the anthropologists. In two recent departures we see its reinstatement: one in the statement of the process of individual growth in self-consciousness (already adverted to, and to be discussed more fully in the chapter on "Interpretation"[3]); the other, in the discovery of the facts of æsthetic "semblance" or "empathy."[4]

[1] W. K. Clifford, *Seeing and Thinking* (1879).

[2] A modern statement of the world-soul theory is to be found in Fechner's *Nana* (1849); see also his *Zend-Avesta* (2nd ed., 1900-1902).

[3] Chapter VII, below.

[4] A term suggested by Titchener and Ward as rendering for the German *Einfühlung*. "Æsthetic semblance" is the equivalent of "empathy." It is to be hoped the confusions may be avoided in English that have made the German term almost useless. It has become equivalent to "animism." Empathy is no doubt the best term for the strictly æsthetic movement, some other and more general word such as "semblance" being used for the entire group of analogous imaginative processes.

In spite of passing anticipations,[1] the credit belongs to Th. Lipps of having investigated the facts and formulated the rules of the sort of semblant or imaginative reading of the self into æsthetic objects which he calls *Einfühlung*.[2] In his important work, *Æsthetics*, the principle is made one of universal explanation.[3]

It appears to explain the fact that in æsthetic appreciation the spectator has a certain sympathy or "fellow-feeling" (Mitchell) for the object, apprehending it *as-if* it could itself feel; that is, as if it were animate. In this broad tendency, we see the kinship of the movement with those of animism and ejection, and this suffices to give to it its first classification.

But we find that the treatment of the æsthetic object as if it could feel, or as if it were a self or subject of feeling, involves the sort of mental movement that all *as-if* or "semblant" functions involve: a sense of "make-believe," "self-illusion" (Gross, *bewusste Selbsttäuschung*), willing deception (Paulhan, *mensonge*), *Schein*. We speak of the "illusions" of the theatre, the "make-believe" of play, the artificial conventions and "hypocrisies" of social life; all these contain alike an element of "as-if" or pretence, which we all agree to and allow to pass. This results in a second and narrower classification of the æsthetic phenomenon: it

[1] Notably that of Lotze in *Über den Begriff der Schönheit* (1845). See also his *Microcosmus* (1856).

[2] Th. Lipps, *Raumaesthetik* (1893–1897); *Aesthetische Einfühlung* (1900); *Aesthetik* (1903–1906).

[3] See also K. Gross, *Der ästhetische Genuss* (1902). In English the literature is not extensive: see Mitchell, *Structure and Growth of the Mind;* W. M. Urban, *Valuation, its Nature and Laws* (1902); Baldwin, *Interest and Art* (1911). For a full exposition of German discussions see V. Basch, *Revue Philosophique*, Vol. XXXVII, Nos. I and II, and for thoroughgoing criticism, Ch. Lalo, *Les Sentiments esthétiques*. Cf. also Paulhan, *Les Mensonges de l'art* (1906).

is a case of semblance. The æsthetic object simulates the real; it does not assert reality. It depicts; it does not narrate.

But we have not yet come to the differentia of *Einfühlung* or empathy. The æsthetic object is not only (1) a semblant object which (2) falls in the class of beings that feel; it is further (3) endowed with the human life and with the very feeling of the spectator himself. It is a process of ejection, of the semblant re-reading, *of the personal self;* it is an auto-projection of the self into the work of art or the beautiful thing.

Apart from other possible criteria or essential marks of æsthetic experience—such as idealisation—this, it is claimed, is one criterion and essential mark.

This discovery, apart from the unchastened use made of it in certain of the more speculative German treatises,[1] is recognised by many as a notable advance. It seems to include and to unify many of the partial insights of earlier writers on æsthetics. It is vigorously opposed, especially by the "intellectualist" [2] and "technical" theorists, who find æsthetic value respectively in a rational idea and in the technical sufficiency of the work of art. It constitutes, however, a notable advance in the understanding of the æsthetic sentiment as such.

The Attention.—As remarked above, the problem of attention was neglected until modern times. It was taken up by Condillac and the French spiritualists,

[1] The passage from the strict æsthetic mode of ejection to the broader meanings of semblance and animism has brought confusion into the discussion and opened the door to hostile criticism. Instead of the empirical meaning of the sense of self, of whatever grade, a metaphysical principle, "the Self," is invoked to explain the facts.

[2] For a presentation of the intellectualist theory, see B. Bosanquet, *History of Æsthetics* (1892), a work written from a very *ex parte* point of view.

notably Laromiguière, who found in it evidence of pure mental activity. Fries distinguished "involuntary" from "voluntary" attention.[1] Its growing importance in recent psychological theory is the result of several somewhat distinct causes.

In the first place, the discovery of hypnotism and its investigation brought the attention into critical notice. The two schools of Paris and Nancy, differing widely in theory, still agreed on the technique of hypnotism, as requiring the induction of a fixed or static state of attention, directed upon a single idea (*monoidëisme*). It was through this state that the sleep in which the "suggestion," essential to the Nancy view, was found to take place, and also the states of relative trance, considered characteristic of it by the Paris authorities, were alike induced.[2] This has remained perhaps the greatest gain from researches on hypnotism; for light was thrown upon the function and the effects of attention. In pathology, it has resulted in the resort to mental symptoms and diagnosis, as supplementary to physical, and to theories based upon a variety of disturbances of the attention, found in mental disorders.[3]

Again, investigations in both experimental and animal psychology have shown the attention to be of capital importance. States of distraction, preoccupation, over-concentration, etc., are matters of high importance in the control necessary to experimentation

[1] The former belonging to the "lower order" of processes, memory, habit, and association with imaging.

[2] The Paris school is represented by the authorities of the Salpêtrière hospital, led by Charcot; the Nancy school, by Liégeois and Bernheim.

[3] See especially the work, *Les Névroses, etc.* (1898), of P. Janet, who suggested the term "psychasthenia" as being more appropriate in many cases than "neurasthenia."

upon the mind; and the psychology of these different conditions is still to be worked out. In connection with reaction time, differences have been made out due to sorts or types of attention. In experiments on animals, the pre-requisite to any sound results—in investigation on learning, imitation, etc.—is that the attention be effectively attracted and normally engaged.[1]

These special indications converge upon the attention; and with them go indications given by the general psychology of effort and volition.

The result is a body of theories about attention and some experiments upon it. The theories are in general those which typical views of the mental life would respectively welcome. The "intensity," "inhibition," and "motor" or "dynamic" theories are the present-day alternatives. In the intensity theory one recognises the Herbartian and Humian notion that high intensity or vividness in a presentation is what is meant by attention; there is no function as such, called "the attention," which may be on occasion focused upon the presentation. This is, in short, a "content" theory, either sensational or presentational. In its sensational form it was stated by Condillac.

The "motor" theories are at the other extreme. They recognise a functional concentration or fixation of the mind upon the presentation, either drawn by the content or selective of it. For this theory it is "the attention," the "activity" of the spiritualist psychology identified with a mass of active or motor processes.

[1] The ever-present difficulty is to secure experimental conditions so natural that the animal is not distracted, confused, or made afraid. This is especially difficult when the natural gregarious habits are interrupted under conditions of isolation.

In the development of the mental life, the motor processes act as the adaptive and fixing agent; the attention is an organ of intellectual, as the muscles are of organic, accommodation. The actual motor elements involved have been variously described.[1]

The "inhibition" theory is, in a sense, a negative rendering of the intensity point of view. According to it, there is nothing intrinsic about a given presentation that it should be attended to; it is attended to, when it is, because of the inhibition or restraint of other contents, by reason of which these cease to be rivals to the former. The rival presentations fall away, or are held back, and the one left free stands in relative isolation, and so secures the vividness which we call attention.[2]

Contemporary Views of the Mind.[3]—The present

[1] See Ribot, *Psychologie de l'attention*. In the writer's scheme, for example, *Mental Development in the Child and the Race* (1886), the attention to a thing or idea may be analysed into elements, as shown in the following formula, $Att = A + a + \alpha$. A stands for the gross muscular and organic tensions of "getting ready," necessary to any act of attention; a for the more special processes of concentration to a class of things, as of the eye muscles in vision; and α for the most special processes of seizing upon and recognising the single thing or presentation. Every act of attention has "general" elements, "class" elements, and "individual" elements, all of them motor in character.

[2] Two recent summarising books are by E. B. Titchener, *The Elementary Psychology of Feeling and Attention* (1908), and W. B. Pillsbury, *Attention* (1908). Both these authors do scant justice to the "motor" theory.

[3] There are other special departures which might be noted before closing our brief exposition. Most important work has been done in mental pathology. The investigation of individual heredity and character was given a fruitful impulse by the works of F. Galton (*Natural Inheritance*, and *Enquiries into Human Faculty*), to whose initiation also—reinforced by the statistical methods used by K. Pearson on investigations on "bionomics"—it is due that the undertaking called "eugenics" starts out with promise for practical psychology and morals.

day sees the refined and reflective re-statement of older theories, but has its own preferences as well. The pendulum swung widely to the left in the late nineteenth century, when the "new" nerve physiology and pathology substituted the brain for the mind, and the advocates of the experimental method talked of a "new psychology without a soul." The middle point of the return swing was touched in the theory of psycho-physical parallelism and in the scientific agnosticism which professed a neutral attitude in respect to the nature of mental reality. This had the merit, at least, of silencing much of the philistinism of the "new" departures just referred to.

In the present decade the pendulum is moving to the right, toward a re-statement of the spiritual theory. It appears in the return to consciousness, considered as the first datum of knowledge—as in the movements of "neo-criticism," "immanentism," "radical empiricism."[1] The mind is said to be just what it seems to be, just what it shows itself doing and experiencing. The substance view of the soul is replaced by an "actuality"[2] view of the mind. Mind is what we actually find it to be; just as body is what the physicists find the properties of matter actually are. Psychology is as capable of dealing with mental changes and laws as physics is with physical.

This is supported also by thinkers whose interests are

[1] A phrase given currency by W. James. The point of view was explicitly taken up by Shadworth Hodgson (*Philosophy of Reflection*, 1878, and *Metaphysic of Experience*, 1898), in a sustained and original analysis of experience. As in Hume, the dualism of inner and external worlds is derived by this writer within the sphere of experience itself. With Bain and James, Hodgson (who died in 1912) takes his place as one of the foremost modern representatives of empiricism.

[2] See Paulsen, *Einleitung in die Philosophie* (1892).

moral. It permits the reassertion of the point of view of Lotze, according to which the mind has its own synthetic function, different from that of the brain, and possibly under some conditions—realised, it may be, in another life—independent of it.

This also appears in various forms of "intuitionism" and "immediatism." Of the former, the movement in France is especially noteworthy, where the revolt against the logical pretensions of the formal idealists is based upon a negative critique of conceptual knowledge. The resort is to immediate intuition, and to direct experience of life and the world.[1]

The immediatism which results from a critique of logical thought takes on various forms. Both feeling and will are resorted to, to make good the defects of knowledge. There is a new affectivism and a new voluntarism. The former takes shape in constructive æsthetic theory—a renewal of the pancalistic suggestions of Plato and Kant—and in thinly disguised mysticism. Voluntarism appears in forms varying from pragmatic relativism and psychological theories of value—considered as being more fundamental than truth—to the return to absolute will. Just now we have the day of feeling, passion, striving, as before the year nineteen hundred we had the day of reason, logic, conceptual knowledge.

[1] See Bergson, *Les Données immédiates de la conscience* (1890), and *l'Évolution créatrice* (1907).

PART VI.

GENETIC INTERPRETATION OF THE HISTORY

CHAPTER VII.

The Development of Individual Thought.

IN the Introduction it was stated that in our exposition we would note the bearing of the analogy between philosophical and individual interpretations of the mental principle: between the race's and the individual's progressive understanding of the self. In various places, accordingly, we have pointed out in passing the application of this thought, and our main division of the history into epochs has illustrated it. The epochs designated prelogical (primitive), spontaneous (Greek), and reflective (modern), belong to the history of thought and to the history of the person alike.

The interest attaching to the facts will be enhanced if we state the principle a little more succinctly, especially in view of deciding what it does not imply. This we will first attempt; and then give a brief sketch of the actual course of the individual's normal development, in which the main stages will be thrown into relief. The points of correspondence between the two movements will then become plainer.

The parallelism or concurrence in question is this: the course of human interpretation presents a series of progressive stages which bear analogy, both in

character and in order of appearance, to the stages of the individual's progressive understanding of the self.

The reason for considering this parallelism as more than an analogy has been intimated above.[1] There is an important sense in which the two series appear to be not really two, but only one. The racial progression is due to a series of assimilations, on the part of society, of the thoughts or interpretations of individuals. Social thought is a re-reading of individual thought. On the other hand, the results reached by individuals are re-interpretations of socially current material. Individual invention and originality always proceed by a re-reading of earlier knowledge, belief, or practice. So far as the mere facts go, therefore, we see some reason for saying that the two series cannot be radically different or dissimilar. How could society, represented by the series of racial thinkers, reach results which were not also normally achieved in typical individual points of view? On the other hand, the individual's capricious imaginings, his atypical and purely personal fancies, would not "set" in the social mould or appear in the historical movement.

This is clearly the case with the topic of our inquiry, the self, whatever may be said of the less fundamental and merely factual beliefs and opinions. The view entertained by the mind is an interpretation of one of the two parts of the great world-cleavage into self and things; and the movements of the individual's thought, like those of the race's thought, represent a very gradual growth in the course of the entire experience of life. The self is achieved; it must be constantly tested and found to hold good; it is the permanent

[1] Introduction in Vol. I.

centre of values, both individual and social. Its development, therefore, in the one case as in the other, can go forward only by a series of adaptations reached through struggle and achievement; it is the outcome of a continuous travail.[1]

I. *The Rise and Development of Dualism in the Individual.* We will now inquire into the series of interpretations of the self and the world reached in normal individual development.

Psychologists find that the child very early comes to recognise in himself a centre of the events taking place about him. That is to say, he is the centre of his own apprehension and experience. But his early self is his whole person, not his mind simply. The physical person is the seat of the self; but it differs, he soon learns, from the things which are not persons.

[1] This leaves untouched, of course, the question of the nature of the developing principle; to take that up would be only to add our own interpretation to the rest. We are dealing here simply with history.

It may be well also to point out certain other questions which remain over; to indicate certain things which the principle here announced does not imply. (1) We are not dealing with the history of culture as such, the social attainment of an epoch or people; but with the theory of the mind or soul which we find expressed in the writings of its representative thinkers. (2) It is, therefore, most frequently the advanced thought, not the average social belief that we have to consider. (3) We do not raise the question—touched upon on another page—as to the possible achievements of individuals, at this epoch or that, had they been born in some other environment or epoch: the question of a real progress in human endowment. On the other hand, the two valid applications of the analogy in question are these: (*a*) that which rests upon social historical progress rather than advance in individual endowment; and (*b*) that which finds in the recorded or reported outcome of progressive human thought about the self an advance parallel with that found by psychologists in the development of individual thought.

What it is that makes this difference—the something that is present in the body to make it a person—he is to learn only very slowly.[1] It is his gradual discovery and interpretation of the meaning of this difference that motives his growth in knowledge. If we designate any sort of distinction between these two factors of personality, between mind and body, that is, as dualism, we may say that at first experience is probably without dualism. In more technical terms, it is "a-dualistic." But the dualism of mind and body takes its rise and passes through certain well-marked stages of development, the details of which we cannot here relate.[2] The principal movements, however, are as follows—

(1) *The Projective Stage:* the interpretation of all nature as crudely animate, without distinction of living and dead, mental and physical. As giving a first advance toward a sense of the meaning of the self, it is called "projective." Although a-dualistic, still its striking feature, movement, agency, mysterious force, is on the side of what afterwards comes to characterise mind as the self. This character is simply projected forward, along with the other marks of nature; it is not in any sense reserved for the self. It is also, so far as human—that is as representing human values and beliefs—a collective or common mode of apprehension. The child accepts the traditional and conventional estimates, methods and sanctions. He cannot

[1] For the theory of the social origin of self-consciousness see the writer's *Social and Ethical Interpretations* (4th ed.). Cf. also Royce, *Studies in Good and Evil;* Ormond, *The Foundations of Knowledge;* Mezes, *Ethics, Descriptive and Explanatory;* McDougall, *Introduction to Social Psychology.*

[2] On the progressive development of the dualism of mind and body, see the writer's *Thought and Things*, Vol. I, "Functional Logic."

be independent or logical, not being yet a complete individual. He is developing in the social matrix. The larger interest, representing the essential moulding of his personality by society, is all-absorbing to his curiosity and all-imperative for his practice. It is his nature, not his will, that leads him to follow the social trend.

(2) *The First Differentiation: the apprehension of persons as different from things*, without, however, the apprehension or interpretation of the marks of subjectivity. There is merely the discovery of an actual but indefinite difference; the marks that indicate an inner centre of experience are not separately cognised. The character of this difference appears as the positive marks of the contrasted terms develop (as given just below).

(3) *The Rise of Subjectivity:* the experiences of the inner life itself, its pains, pleasures, efforts, etc., are apprehended as belonging peculiarly to the self, which is for this reason "subjective." Every person becomes in this sense a subjective centre of personal experience, having emotions and desires which are peculiarly his own. The merely projective marks of personality are taken over from others by imitative absorption and found to be marks of the private self. By his awareness of this he becomes conscious of the individual mental life as a circumscribed area. This is the period of the rise of the subjective.

At this stage, the dualism takes on more definite form, since the objects of the world are those things which do not have the subjective character. The objective exists over against the subjective, the outer over against the inner, dead things over against conscious persons.

The young child's interest does not pass easily over to external objects as such; he treats them as instruments of action, means to ends, tools for the carrying out of personal purposes. His concern attaches in preference to persons, whose acts and attitudes constitute, with his own, the continued and highly interesting panorama of life. The interest so aroused and developed continues to be, as at first, a collective one, a social one; since his distinction of persons from things does not yet amount to the radical separation of persons as individuals from one another. "Man is the measure of all things"; but the meaning of "man" is that connoted by the collective "we." This is the "subjective-objective" stage.

(4) *Ejection.* This last-named stage of dualism—the "subjective-objective" stage—is confirmed and hardened by the process known as "ejection." By this is meant the tendency to understand other persons, and personality in general, in terms of one's own experience; to take the outline sketch given in one's own subjective life as fit to be placed upon the similar life of others. "They feel," says one, "act, and desire, as I do or as I should in their places. I understand them because they are selves as I am; my growing experience enables me to interpret their conduct constantly more accurately. In short, in the words of the social psychologist, I 'eject' myself into the other person; and that which is thus common to us both and to all individuals is the social self, the *socius*, of the group. It connotes a self of personal values, sanctions, and duties, in which all individuals by their very nature participate."

It is for this reason that the interests and values of the early life continue to be so distinctly collective and

social, even after the objective world as such is fairly apprehended. Only gradually are the motives of individualism released. Even the knowledge of things, resting upon sense perception, and confirmed on occasion by individual observation, is socially tested and supplemented; it is a body of "collective representation," as the French sociologists phrase it. Besides what it merely is for recognition, an object means what it is for use as a social utensil or instrument; just as to us adults, while a lamp-post on the corner is a post, it means withal a system of good or bad city illumination: it is both a thing and a civic symbol. In all this, there is the further connotation which is due to the survival of earlier collective interests. A child accepts the say-so of parent or teacher, and does not reflect or judge independently. In matters at all removed from immediate apprehension, the social standard and tradition are final and obligatory upon his knowledge and conduct. And even in cases of direct sensation, the social interest so floods over and obscures his perception that an a-logical and mystical meaning may be imparted to the simplest and most commonplace things and events. A similar state of mind is often present in adults, as in the Christian communicant's attitude towards the Host or its elements. What Christian, even the sternest Protestant, sees in the Eucharist merely a morsel of bread? Although bread, it is also the Body of Christ.

While, therefore, the individual at this stage of his growth does understand persons as being subjective, it is a social and practical subjectivity that he reaches, not one in which the single personal self and its interests are fully isolated. The character, ends, and objects of thought and life are collective. Everything is

socially prescribed and socially judged. The family, the school, the social set, embody the *socius* which is the subjective principle, over against objective and inanimate things.

(5) *The Growth of Objectivism.* A similar hardening of the objective term of the dualism goes on, but much more slowly. The child only gradually comes to interest himself in things for themselves and in knowledge for itself, apart from the personal concerns to which they are instrumental. He has to be taught to observe things and describe them accurately, to report exactly what he sees and hears. His definitions are couched in terms of interest and practical use: a stone is "what you throw at birds," ice is "that which cools the water." It requires an enormous mental readjustment to effect the transition of interest to the objective pole of the world-dualism; and this even when all the pedagogical agencies of example, precept, and instruction are exerted to aid in the achievement of it. Never, in fact, do any of us completely emancipate ourselves from the subjective preference which is so largely of social origin. There remain always many of Bacon's "idols of the den": images of social origin and interest which we worship at the expense of the colourless forms of objective and neutral truth.

But the process of logical emancipation does go on. The factors of external reality, which we find to be foreign to us; the actual data of sensation, which restrict our activities; the requirements of accuracy in memory; the need of common results among ourselves in the details of knowledge—all these things lead to the establishment of a body of facts and truths by which the movements of personal interest and preference are controlled. The boy's knowledge of the topo-

graphy of the neighbourhood becomes accurate, just as does the savage's knowledge of the regions of the forest in which he lives. Truth comes to dominate and guide his activities in the direct affairs of life; although preferential interest may continue to lead in the further interpretation, and result in the contortion of truth as soon as these direct affairs are lost sight of. The child knows that "Dolly" is not alive, and treats her on occasion as a mere inanimate thing; "Dolly" is then the objective doll. But "Dolly" is also the dear child, the preferred playmate, the injured loved one. The larger personal and sentimental interest engulfs the mere objective thing; and the world of persons, subjective and preferential, asserts its superiority with overwhelming force. The two "Dollies," born of the two rival interests, objective and subjective, live together without discord in the one porcelain image. So to the adult the mere thing, which is real enough, disappears in the holy object, the familiar fact in the mystic presence it signifies. In the "legal-tender" note, the mere printed paper merges in the social instrument of exchange and profit.

This doubleness of meaning, attaching to things generally, remains in the mind of most men in civilised society. But the progress of thought in the individual is, nevertheless, not arrested at this point. Individuals may, and many do, learn to reflect upon life and mind, and to attempt to construct science, even though most men remain ignorant of such problems. The passage into what we may call a reflective or logical dualism shows certain further motives at work.

(6) *Immature Dualism.* A continued embarrassment arises in the presence and rôle of the body, the physical part of the self. It is at once a mere thing and also

the intimate seat of the subjective life. The two interpretations to which inanimate things are open, on occasion resting side by side without great inconvenience, now come into flagrant opposition. My friend's body, and even my dog's, can never be to me a mere thing, although it is an external physical object. I always have to treat it as a living or personal body, a centre of feeling and action. So with my own body. It is, of course, a thing; but for me it is not only the instrument, it is the very residence of my self.

One way of escaping from this dilemma is seen in a growing emphasis of the subjective. The agent asserts himself to the extent of seeking to dominate the physical and control the things of sense and fact by force of personal preference and will, or by ignoring the physical altogether.[1] So a pronounced individualism is born. The growing child manifests a series of resisting, aggressive, and "contrary" attitudes; he rebels against authority and refuses to recognise facts. We say he is wilful—which is true!

In this tendency, the individual subject and its interests tend to free themselves from the social matrix. The sturdy self-assertive person appears, ready to disregard for the time the mere things which he uses as instruments of his efforts and purposes. And he finds in other persons centres of power and individuality like himself. A fruitful opposition of wills arises.

Another direction of growth appears in a lapse from the binding conditions of the dualism itself, when resort is had to a temporising personal attitude: a

[1] The psychosophic counterpart of this is seen in the quasi-religious views which recognise certain aspects of the physical while ignoring others because they are disagreeable or painful or "evil."

sort of hedonism, opportunism, and scepticism. This appears more simply in the individual than these descriptive terms, drawn from the sphere of reflective thinking, would indicate. It is a state of surrender, impotence, *laisser faire*. "What's the use?" "I don't care," "No good," are its expressions.[1] It leads, however, to the step taken in advance when both terms of the opposition are given due force and a further development of the dualism itself becomes necessary.

(7) *Psycho-physical Dualism.* Such a development could have only one issue. The hardening of the mind and body terms—each assimilating to itself a wide range of experiences—leads to the separation of the two types of existence into two disparate control-factors or substances. The spiritualism of early religious instruction and of conventional social belief is the refuge of the individual's thought. He believes that he has a "soul," a spiritual substratum, which is nevertheless placed in a body which is in nature and in fact separate from it. The body has a different substratum. Thus a spiritual world and a physical world arise over against each other. Their actual meeting-place is in the personal body. Here the psycho-physical bond is established by which the soul can act through and upon the body for the realisation of the ends of minds.

The particular form of this view depends, of course, upon the social environment: upon the influences brought to bear upon the individual. But in essence it is always the same. It is a "substantive" dualism,

[1] It is characteristic also of the lapse from reflection after failure and discomfiture, or when the vigour of thought is succeeded by weariness. In old age vigorous sceptics often return to faith, and irreligious rationalists resume their pious practices.

a dualism of substances, of spirit and matter, irrespective of any further definition of either. Before this the problem was that of separating mind and body in view of their common characters. This problem is now treated as answered: they are two disparate and separate substances. The problem then becomes the reflective one, how this can be? How are the two substances related to each other? How can mind and body interact, one with the other? From the point of view of theory, we call it the psycho-physical problem.

This is the question—not urgently asked or asked at all perhaps by the individual—whose solution takes form in reflective and logical alternatives. Society to-day, and the ordinary mature individuals in it, are and generally remain what we have called substantive dualists. It is the task of logical thought to go further in the way which carries human interpretation on to its more refined issue. The individual has now passed from the childhood period; from the prelogical and spontaneous stages of self-consciousness into the fully logical.

II. *The Logical Interpretation of Dualism: the New Dualism of Reflection.* The movement by which the logical or reflective faculty comes into operation in the individual mind is on the whole fairly plain. It involves simply the recognition by the individual that all the objects of knowledge—percepts, images, notions, ideals—all are, whatever else may be said, *in his own mind;* all are ideas, whatever they may prove to be besides. Their relative value is that which he, the subject, is justified, for one reason or another, in attaching to them. He thus reflects upon his ideas, upon any or

all of them, and judges what they respectively are and mean, beyond being mere ideas. Dreams, for example, are judged to have no further value; images are treated with discrimination, some being accepted as true memories, convertible into facts, others discounted as mere fancies; concepts are judged true or false, ideals worthy or unworthy. There is now, in short, a critical attitude, a further belief or disbelief in the availability of mental states, as representing and mediating something beyond themselves.

In this distinction between the subject and the whole of experience considered as objective to it, we have the further statement of dualism in the form known as "reflection." It is called reflective as distinguished from prelogical and spontaneous. It involves a certain reserve of the self over against the entire body of contents in the mind.

In this sense it affords a new dualism: the self is distinguished from the entire body of its ideas or thoughts; upon these it passes judgment. They are its objects, its ideas, its experiences, no matter what differences of value may be assigned to them as the result of reflection. The dream, the fancy, the memory, the hypothesis—all come forward as objects of thought for the inspection and judgment of the self which is the subject. The dualism of reflection is a subject-object dualism.

With this the various modes of logical process proper, argumentation and reasoning in its various forms, come into play; and the mind is launched upon its career of more or less independent thinking, speculative construction, and scientific discovery. From now on, all sorts of theories of the mind, of the world, and of God are possible.

III. *The Development of Imaginative Interpretation.*[1] It is of the greatest interest to note that the growing mind does not rest content with the dualisms that its social and practical life constantly produce. On the contrary, even the form of dualism produced by reflection itself demands revision. Along with the early strenuous endeavour to cope with serious situations, we find the child indulging his imagination in various ways to rearrange and re-interpret the more superficial reports of fact.

First of all, the play functions present to him the world of things and persons in a sort of make-believe or semblance, producing an "as-if" world, in which there is a remarkable room for preference and readjustment. He delights also in imaginative and mythical stories and legends, in fairy tales and wonder-lore, finding in all this a more immediately satisfying world than that to which the rude laws of nature and life introduce him. This tendency grows stronger with the growing years. We find it constantly taking broader form and evoking wider interest; until the entire content of life is shot through with a re-reading of things in the light of ideals, schematic and assumptive in character, erected by the imagination, and serving as standards of what might be or of what ought to be. Both persons and things take on the meaning which makes them part of a further world

[1] Meinong, *Über Annahmen* (1902), pointed out explicitly the rôle of imaginative "assumption" (*Annahme*) and its place as lying between perception and judgment. The doctrine of the "schema," in Kant's *Critique of Pure Reason*, is an earlier insight into the rôle of the semblant imagination, justifying the use of the Kantian terms "schema" and "schematism" in the discussion of this function (cf. the writer's *Thought and Things*, Vol. I, Chap. VIII, and Vol. II, Chap. IV), as we have already remarked above.

in which the terms of dualism are reconciled and its conflicts abolished. In the personal realm, the ideal of duty arises; in the external world, the ideals of order and truth. All this is semblant in the sense that, while not realised in fact, yet it has the semblance of reality. It is "as-if" real: a sort of prophecy of reconciliation and unity. So far as such an ideal unity is assumed or postulated in the personal and social life, it combines the subjective and ejective in the postulate of God, taken to be a real personality, absolute in character. The child takes this over from his elders as a final solution of the dualism of things; "God made both persons and things," he is taught to say. In this a more or less reasoned mysticism of a religious character—involving emotional elements of dependence, awe, and love—identifies the individual's interest with the corresponding racial motives of religion.

These ideals become thus embodied in assumptions or postulates of various absolutes: absolute truth, absolute goodness, absolute beauty. On the objective side, it is in the æsthetic consciousness, in the apprehension and appreciation of beauty, that this movement toward ideal unity and value seems to reach its culmination. In the thing of beauty the individual finds both his personal demands and the requirements of truth realised for the time and in a semblant way. During his full enjoyment of the work of art, he finds the subject-self merged with the objective thing; and it is with a distinct sense of loss and of lessened apprehension of the inner meaning of things that he sees the old dualism of self and object, desire and fact, re-establish themselves when he returns to prosaic life again. He says to himself: "Oh, that things were

always beautiful, that satisfactions need not clash with facts, that ideals were universally realised, as the thing of beauty shows me they may be!" And when he reaches a state of reflection he may well ask: "May not the æsthetic point of view be, after all, the profoundest? May not the real come by an experience of unity and ideality—a real which the dualisms of life and logic only serve to mutilate or distort? May not a return to the immediacy of æsthetic contemplation be the true course for our reflection as it is the resort of the spontaneous mental life, when harassed by the perplexities of partial mediation in this direction and in that?"

Be this as it may, the facts are plain. The imagination insists upon setting up its semblant interpretations of things: its postulate, its ideals, its absolutes, its God. It supplements, stage by stage, the results of one-sided knowledge and the incomplete ends of will; it abolishes, at least in the imagination, the finality of any sort of dualism, indicating constantly the wider view and holding out the larger hope.

It appears, then, in the light of this brief account, that the course of normal individual development shows marked uniformity in two ways. First, the exigencies of life require and produce adaptations which result in dualism between selves and things, between mind and body, between subject and object. This dualism goes through a series of transformations which, while refining, nevertheless harden and intensify it, up to the rise of the logical and reflective period. It then takes on the most refined and varied forms in the crucible of reflection.

But with this goes, *pari passu*, the development of the imaginative function, which shows at each period

a return to a sort of semblant or ideal unity. At each stage the finality of the dualism of the period is denied; and an immediate intuition of things, as ideally complete and whole, is revealed, extending to the entire mental life. This reaches its fullest form in the æsthetic consciousness, which succeeds to the earlier, more mystic modes of intuition, and clarifies their results. A thing of beauty, whether in nature or in art, is for the time apprehended as being both ideal as a thing and ideal for the self. It is as if the Creator, in saying of the world "It is very good," had meant "It is completely reasonable and wholly satisfying, because, as embodying my very Self, it is entirely beautiful."

In the individual, in sum, the development of the theoretical reason or intelligence culminates in laws of Truth for him absolute, that of practical reason or will in norms of absolute Goodness, and that of the emotional life, with which the imagination is charged, in rules of absolute Beauty.

Chapter VIII.

Historical Résumé. Results of the Comparison of Individual and Racial Thought.

It remains only to throw into relief the progressive line of historical thought about the mind—its contour, so to speak—showing the peaks and valleys, from ancient to modern times. This will allow us to utilise the parallelism between the racial interpretation of the self and the individual development of thought, and see how far it holds good.

1. The prehistorical and primitive period represents the true infancy of the mind. Its two great features—its mystical or prelogical character and its collective or social character—are equally evident in the child before the rise of conscious individuality and the power of logical thought. If the child could express his thought, we should have the same difficulty in describing and analysing it that the anthropologist has with the thought of primitive peoples. It is in both cases an infantile reproduction of tradition, a mystic participation illuminated by imaginative and romantic elements, and charged with the most poignant emotional possibilities. The child, like the savage in the prelogical period, is a microcosm, reflecting the larger macrocosm of social values, beliefs, rites, and sanctions, and participating in the mysteries of religious belief.

For the race, it is the period of psychosophic representation; of the morally epic and mystical; of magic and fearful religion. For the child, it is the period of

heroes, wonders, quaint imaginative constructions and logical impossibilities.

In view of the distinction that comes later on to dominate thought and make it dualistic, this period is to be described as projective: with the rest of nature, the mental is projected before the gaze in a sort of panorama. The prime distinction is not that between spirit and matter, mind and body; but that between the seen and the unseen, the evident and the hidden, the clear and the mystic. Behind the curtain of nature which is projected before the eyes there is a seething body of agencies working for good and ill. For psychology, the period is a-dualistic both to the child whose self is the animated body, and to the savage whose entire world is a mass of animated things.

The transition from this period to that of spontaneous thought takes place through the use of the imagination. Anthropologists tell us that the "myth" represents the primitive man's attempt to bring some sort of logical or dramatic coherence into his knowledge. They also find a genuine attempt on the part of the savage to justify and explain his most obscure and illogical traditions.[1] There is a gradual rationalising of social institutions, of games, fêtes, religious and tribal rites, etc., with the beginning of speculative thought, and with the development of political freedom.[2] The child similarly passes out of his bondage to common values and social conventions by the assertion of his individuality and the power of personal judgment, and by the use and abuse of his imagination.[3]

[1] So Boas, *The Mind of Primitive Man.*

[2] A. W. Benn, *History of Ancient Philosophy*, Chap. I, notes the influence of the early Greeks' sense of justice upon their philosophy.

[3] This is to say that in the individual and the race alike the

II. The second great racial period is that of spontaneous thought. It appears in the Greek thinkers before Socrates. No better characterisation of its growing logical character can be given than that conveyed by the statement that it shows the rise and early development of dualism.

Dualism in this sense means a departure from the flat, curtain-like vision of the projective period in the direction of the apprehension of a cleft in nature between the dead and the living, between agencies and effects. It brings forward the agencies which were behind the curtain, and defines them as in some sense minds. A first sketch is made of the distinction between those things that have a self and those that have not.

With the earliest thinkers, the Ionians, this appears in attempts to refine away the cruder features of the elements which are taken to represent life and the soul. Air, warm air, heat, fire, are more subtle and thin than the other elements of nature. Anaxagoras went so far as to call this refined stuff "reason."

Pythagoras took the next important step by subordinating the mere matter of nature to its essential principle of form and order, identifying the latter with reason or the soul. This, however, remained merely a distinction within the one "nature," not a difference between the two sorts of nature.

In the "clearing-up" work of the Pre-socratic schools, the seed of "subjectivism" was sowed. But

assumptive or schematising imagination lies between perception and judgment. By its assumptions and semblant constructions, the imagination formulates the solutions and anticipates the confirmations of judgment and thought. The imagination is the *experimental faculty* among the mental powers.

it was a scattered and unintentional sowing. It was a reaction from attempts to launch the speculative boat, a return upon the beach, upon the thinking mind itself. The Sophists made ready for Socrates by clearing away the wreckage. They brought out the real meaning of the saying "the senses deceive," a saying common to Eleatics and Atomists alike in their attempts to account for the movement and plurality in nature. If the senses deceive, what we have left is merely the senses; not the objects of experience, but only experience. So the mind begins to be looked upon as something a little more certain than the external world; and a line of cleavage appears between mental nature and physical nature.

III. In Socrates the mental took on a more subjective character. This has been sufficiently remarked upon already. It has just the same capital significance in racial thought that the dawning of the sense of subjective personality has in that of the individual. Besides its positive character as a human attainment, it is the basis of the later and fuller achievements of thought. From the subjective soil grow the fairest blossoms of the mind.

In Socrates' thought the two marks of early individual self-consciousness appear; it is practical and it is social.[1] For Socrates, the subjective sphere in which truth defines itself is not individual but human, not private but social; and its end and criterion are not theoretical but practical, not logical but moral.

In the two great Socratics, Plato and Aristotle, the motives necessary—as shown in individual life—to the development of full self-consciousness, plainly appear. They have been designated in our account as "objec-

[1] See the preceding Chapter.

tive," "ejective," and imaginative or "semblant." Each of these had its explicit development.

Plato stands for the union of truth and goodness in the supreme idea of God. Plato's "ideas" give ejective rendering to the concepts of Socrates, which are thus taken out of the realm of the subjective and given metaphysical value. Moreover, the supreme idea is going on to be personal; it is God. The self becomes the "world eject," the absolute reason.

But God is also the *summum bonum*, the supreme good, the ideal of the practical life. Thus the moral demand of Socrates is also fulfilled.

Further, the emotional and imaginative cravings for completeness, unity and beauty, satisfied hitherto in the psychosophy of the time—the Orphic and Pythagorean mysteries, the popular legend of transmigration, etc.—and in the development of fine art and its folk-equivalent, the dramatic myth, becomes an intrinsic though inarticulate factor in speculative thought. The reconciliation of truth and goodness, the theoretical and the practical, in God, is reached by the exercise of the faculty of emotional intuition or love. In the ideals of feeling, the fully real, at once true and good, is seized by an act of mystic and æsthetic contemplation. By divine love, the human self overcomes all its dualisms of partial apprehension, in a contemplative oneness with God.

The self-consciousness of the individual is advanced also by the movement through which the objective is defined. The objective is that which is in a sense left over; it is the impersonal world of things, physical nature. This appears as a sort of rebound from the movement of subjectivity. In the historical progression Aristotle stands out as the "objectivist," following

upon the "subjectivist," Socrates, and the "ejective idealist," Plato.

In Aristotle, however, objectivism is only what it could be at such a time. It was not the objectivism of modern physical science nor that of a positivist philosophy; much less could it be merely that of the Greek Atomists, which was unaware of the subjective point of view. It was rather an objectivism that carried the mental life over to the objective, restoring the mind to nature. Mind to Aristotle was the form of organised matter; it was not a self-sufficient substance, of independent definition. Matter, also, was not a substance, set up in opposition to mind and free from the form of mind. Aristotle's theory was a reinstatement of the hylozoism and animism of the Ionic thinkers, enriched by the gain of a partial dualistic insight and by the conception of "nature." It was the objectifying of mind, however, that made Aristotle's contribution to psychology important; it enabled him to employ upon mental, along with physical facts, a sound observational method.

IV. In the Post-Aristotelian schools, the embarrassments due to dualism began to assert themselves, as they do in individual thought. The "relativity of knowledge" was extended from the senses to the reason. The development of individualism tended to impair political and social solidarity in practice, as it destroyed universality in thought. The dictum, "*Homo mensura omnium*," of Protagoras took on riper form in the personal resignation of the Stoics and the reasoned individual moderation of the Epicureans. The downhill tendencies of decaying speculation took effect in the ethical decadence of the Cyrenaics and Sceptics.

Like the individual, however, the racial self does not

rest, torn by its embarrassments. The individual resorts to the emotional, mystical, and idealising imagination; he forgets hard facts and stern duties alike in the semblant illusions of play, the fictitious situations of the fairy-tale and drama, and the synthetic representations of art. In the period of which we speak, the beginning of the Christian era, all these had long been familiar. In the speculative realm, Plotinus gave place to the imagination and renewed the "contemplation" by which Aristotle had interpreted the "love" of Plato; but with a fuller sense of its practical, if "other-worldly," value—due to the alertness of the new theological interest. The sharp weapons of Christian dogma were tempered by the softer alloy of Alexandrian theosophy. Plotinus, however, was the first to turn explicitly to mystic thought in and for itself; for in Plato it had been an emotional motive, and in Aristotle it was the copestone placed upon a theoretical structure. In Aristotle the mystic interest completed the system; in Plotinus it produced it.

With the Church Fathers, the power of religious authority and the forms of psychosophic faith came to impart new confidence to thought and new vigour to life. The dualism of spirit and flesh justified itself in terms of the philosophical distinctions of "subjective and objective" and "form and matter" of the late Greek period. The result, both in the Patristic and in the Scholastic writings, was a sharpening of the opposition between mind and body in the interest of Christian apologetics. That this outcome was welcomed as a means to religious faith, not as an end to theoretical interest, is seen negatively in the nature of the topics of discussion, and positively in the mysticism of the

Christian creeds. In the voluntarism of St. Augustine and the new Aristotelianism of St. Thomas, however, we see the motives of later reflective thought struggling to release themselves.

As in the individual, the struggle into personal independence and individualism is urged on largely by practical motives, so it was in the racial movement also. The motives of religious faith controlled the definition of dogma; and dogma in turn produced apologetic theories of personality—divine, human, demonic, and angelic. It was from the side of practical considerations, including those of national scope, that the pressure came by which the cleavage between mind and body, considered as two distinct substances, was finally produced.[1]

V. The cleavage came with Descartes, as we have seen. Descartes opens the period which is called reflective in the sense that the dualistic results of earlier thinking now become data for a further interpretation and for direct criticism. It was no longer mind and body as distinct terms that were to be interpreted; these had become presuppositions of reflection itself: but it was the dualistic relation as such, together with the assignment of ambiguous data of experience to one category or the other.

It was no doubt because of a waiting for "the fullness of time" that Descartes appeared only so long after St. Augustine. In the latter the definition of the function of reflection; the separation of mind from body and its definition (in terms of will); the use of a method

[1] "The complete severance of spirit and nature . . . began with the decay of Grecian life, in the age immediately subsequent to Alexander the Great."—Schwegler, *Hist. of Philos. in Epitome*, p. 184.

of observation suited to the mental material; all these essentials of scientific psychology were actually present. But the theoretical interest had to wait a favourable turn in the tide of practical and human concerns. It was held for generations in bondage to the theological, awaiting the dawn of the Renaissance.

The case is the same with the individual[1] when he passes into the period of reflective thought. All ideas alike, as we have seen, fall inside the sphere of reflection or judgment. The two control-categories of mind and body are present as presuppositions, nets spread out for the reception of facts. Each idea goes in one class or the other; it is the task of reflection to judge which. It is clear, then, that in Cartesianism, and in the developments known as "occasionalism" and "pre-established harmony" that followed shortly after, racial reflection did what the logical individual also does: it used dualism as point of departure or presupposition for the assimilation and reduction of the detailed events of experience.

This may be called the logical crisis in both series, the individual and the racial alike. It leads to a further reflective dualism, that between the self as thinking and

[1] One might insist upon the analogy here, remarking upon the apparent difficulty the race and the individual alike encounter in passing from a mature dualism to a reflection which interprets experience in terms of this dualism or by means of a criticism of it. The individual rarely becomes a philosopher; and the race had to wait for the rare philosopher who was to be its mouthpiece. Further, Occidental civilisation alone has produced the logical type of thought that embodies itself in speculative system and positive science. We may well imagine the world entire, still living in the practical and mystical types of culture, as represented by the Egyptian and Indian civilisations. The Greek and the western European developments seem to be the two historical cases in which the race has achieved an advanced logical mode of Reflection, so far as historical records show.

judging principle, and all the objects of thought, the ideas, whether these represent mind or body. The "subject-self" is set over against the "object-self," which is a content or idea in the same sense that presentations of body are. In the history of reflection, this presupposition of subjectivity is the explicit characteristic of idealistic thought. The distinctive problems of epistemology now appear. Besides the problem of knowledge, there is the problem of knowledge-of-knowledge; the subject not only knows objects, but it knows itself as object among others. This doubling upon itself is characteristic both of the reflective thought of the individual and that of the race. Its problems have been stated and their principal solutions worked out in modern philosophy since Descartes.

It is of great significance that this point was reached through the urgency of emotional or affective motives no less than of those of thinking; in Boehme no less than in Descartes. The distinction of subject and object came, in the one case, out of the embarrassment of thought; in the other, out of the aspirations of faith.

Thinking having appeared, it is evident that reflection may take on protean forms. Modern psychology reflects the alternatives which philosophy has worked out in its varied systems, so far as these concern the mind. Looking upon the movement of thought as it appears in perspective, we see the early alternatives reproduced each for itself, with critical and historical justification, in the modern period. It is in respect to variety and refinement of enterprise, to richness of data and power of criticism, to sobriety of method or its opposite—deliberate speculative licence—that the analogy with the individual now holds good. Positivism, rational-

ism, and immediatism—science, philosophy, and faith broadly understood—are the modern alternatives. As in modern culture, so also in individual thought, the choice among them is largely a matter of temperament.[1]

In conclusion we may say, in view of the confirmation that our study has given of the parallelism between individual and racial thought of the Self, that in the history of psychology we discern the great profile which the race has drawn on the pages of time. On closer inspection it appears to be made up of a great number of smaller profiles, placed on end, coming down the line. Each of these in turn, more distinct in detail and fuller in outline than the last, contributes something to the larger picture which is the portrait the race has made, and is making, of the human Self.

[1] See above, Chapter VII of Vol. I, *ad fin.*

THE END

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