III.—PHILOSOPHICAL TERMINOLOGY (II.).¹

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II.

62. The question has been raised as to the causes of the obscurity and confusion in psychological and philosophical terminology. The fact that such obscurity and confusion exists is assumed as given. Hence it is no part of our task to confirm this fact; but we must refer those who doubt it to a comparison of the best-known works, those which excel each in its speciality, of European and American origin. Almost each of these operates in these regions with different concepts, or at any rate with concepts which are differently determined. But even within each particular work, if we examine carefully, we shall not find a consistent terminology; but shall often find that the sense in which an expression was introduced, even the definition which was given with it, has been neglected and apparently forgotten in the course of the exposition, so that the reader who would rest upon it as upon a staff, feels it break in his hand. "If we regard philosophy so far as it comes into contact with the whole of life, we shall feel with pain the misunderstandings which stream from the uncertainty and confusion of language" (Eucken).

¹ The Welby Prize of £50 was awarded to this admirable essay by Dr. Ferdinand Tönnies of Hamburg (Editor, G. F. S.).

63. We will therefore direct our inquiry exclusively to the *causes* of that obscurity and confusion, so that we may then consider the means for improving such an undesirable state.

64. The essential causes will be contained partly in general obstacles, partly in the historical conditions upon which the position and activity of these sciences are based. But these are of many kinds. We must here represent them as they appear to us for the estimation of this causality in their sharpest form.

65. (1) But we must first maintain that not only at the present time, but long ago, these causes have been noted, and this condition lamented. Even if we disregard voices from antiquity, yet since the renewal of the sciences a whole series of prominent thinkers have pointed out the evils of an obscure terminology and investigated the causes. In the sixteenth and seventeenth centuries there prevailed among free thinkers the conviction that the whole traditional pursuit of philosophy at the universities—Scholastic—was worthless. It seemed to them that an empty science of words was taught; and that an elaborate terminology was a covering for ignorance and superstition. Technical words and subtle distinctions they despised. They declared their resolution of shaking off this whole inheritance, in order to penetrate immediately to things themselves. The book of nature alone was held worthy of reading; either they desired, like Bacon, to rise from particular experiences to generalisations, or like Galileo they declared that the book of nature was written in geometrical figures, and that who would understand it must learn the language of triangles and squares.

66. But the mathematical tendency far exceeded the inductive in content and influence; it founded modern philosophy. Now in so far as this tendency set before itself the scientific problem of explaining nature, was indeed primarily physics, it was really greatly aided by the elaborate sign-language of geometrical figures, of arithmetic, and soon also of algebra. The international understanding of the great theorems which hold the ground in that region still depends upon the instrument of mathematical formulæ. In later times again *Chemistry*, which is essentially grounded upon induction and experiment, has elaborated its own peculiar language of formulæ. But even that which in Physics and Chemistry goes beyond formulæ has from a terminological point of view caused little difficulty. This fortunate result is largely due to the fact that in the terminology no one has sought for novelties; and this again may be ascribed to the circum-

stance that notwithstanding the free exercise of abstraction, the things and processes upon which it is based lie open to observation and experiment, or if they are inferred are yet made highly probable. If we are unanimous as to the object of the idea or of the concept we are indifferent to the name, and willingly accept a traditional term, though it may have had another meaning formerly, since no one feels tempted to re-establish this meaning. Or we gratefully accept an expression coined by a master, even if it does not seem well chosen, in order to avoid a dispute about matters of taste. Thus we have essentially attained that which was desired by the bold prophets of modern times. Less trouble has been taken about theoretical logic, hence also about the principles of terminology. Together with Theology, its sister Metaphysic has been pushed into a corner whence they cannot disturb the investigators of Nature. Metaphysic, was regarded as that feigned wisdom issuing in "abstruse distinctions" and incomprehensible expressions, which together with Logic occupied the "pedantic" study of the "barbaric middle ages"—through Logic too it had been thought that something could be discovered about things themselves, which can after all only be got at by experience and calculation. This attitude of the modern natural sciences to the old pillars of Philosophy, points to the fact that the former have achieved complete independence and have become almost completely victorious; still there has not been wanting a development in Logic and Metaphysic themselves, nor yet an *extension* of scientific thought to spheres which are little or not at all accessible to Physics and Chemistry, but which are at any rate as near to philosophical interest. We need not wonder, then, that from that time when Mechanics seemed to lead right into the workshops of nature, resolute investigators have undertaken to apply the instrument to which this result was mainly attributed, partly to anticipatory generalisations, partly to the extension of the sphere of knowledge in general—the instrument that is, of the mathematical methods. Hence the energetic endeavour in the proud and strong seventeenth century to treat Psychology, Morals and Politics, as well as Physics, "more geometrico," *i.e.* to demonstrate. But wherein lay the strength of these methods? Opinion was unanimous as to that. It lay in an unbroken progress from ascertained starting-points; in other words, in the combination of undoubted and indubitable propositions into the proof of propositions which might otherwise be disputed. Some maintained the fundamental propositions to be pure

definitions, others held to the given form of mathematics, and thought that the absolute and highest method being impossible—for there are primitive words which cannot be defined—we must relinquish it, and be content to define all terms of which the meaning is not of itself clear and familiar (*cf.* Pascal). All were obliged to direct the keenest attention to terminology, and to attempt to lay the foundations which were held to be indispensable. There was a tendency to believe that most disputes between philosophical sects would *disappear* if only there were unanimity as to the meanings of words. It was assumed therefore—and daily experience taught it then as now—that many disputants never understand each other at all, and that many a one would come to terms with his opponent if he understood him, *i.e.* if he knew what thought he connected with his expressions: there could hardly be a difference of opinion concerning general *facts* and their nearest connexions, for an understanding which was purified from prejudices, and which depended upon the testimony of the senses and—some would add—upon *inner* perception (reflexion). The difficulty lay only in the fact that every one gives different names to these facts—that is in confusion of language. With more or less outspokenness, with more or less qualification, this was the view of the philosophers of the *Aufklärung*: Descartes, Hobbes, Spinoza, Pascal, and the logician of Port Royal, Locke, Leibniz, Berkeley, Condillac, Wolff, may be named here in a great symphony. Much rarer is the complaint that a *difference* of thought lies hidden under the same expressions. But several of these great authors did not think that the difficulty could be solved by definition alone; they doubted whether any natural language was suitable for scientific ends. The complaints, which were seconded by less famous names, may be easily referred to the three concepts under which the present treatise has considered the natural social will. They pointed out, (1) that names are given to things on the ground of defective knowledge, according to the impressions of imagination, according to *appearance*; (2) that the customary use of language is uncertain and inconsequent, that to a large extent it gives expression more to the contradictory feelings and interests of men than to harmonious insight and thoughts, (3) that ordinary speech, but also and especially philosophical terminology, is full of non-literal *figurative* expressions, whereby confusion and obscurity is exaggerated. The first complaint is directed especially against the classification of organisms. It was the more acute, because according to the

received, best authorised, doctrine the genera and species were held to be realities, in such a way that a real essence, denoted by the name, was common to all the individuals of this genus or species. In fact, the "Realism" of the schools, in the form in which it is generally understood, is closely connected with the view that between things and names there exists a natural and necessary bond; while the nominalistic, freer mode of thought apprehends phenomena in their nameless isolation, and claims the right to name them anew as it sees to be desirable. Practically that means, to distinguish them, to arrange them, to classify them, according to its own point of view, *i.e.* according to observation of the most constant and most characteristic attributes. It may seem that in this way an artificial systematism was favoured, because it alone seemed possible; yet the investigation itself necessarily elicited the thought of a *natural order*, of a classification, therefore, which took account of the really common attributes of every species, genus, and family of plants and animals. It is thus that the great French naturalists worked to establish the subordination and correlation of the organs. The recognition and discovery of an "architectural plan" of Nature, which was investigated in its complete unity and in its manifold ramifications, might indeed, if the old dispute had still survived, have appeared to be a victory for Realism, and has certainly worked in this direction through the doctrine of the "constancy" of species. But at the same time morphology led directly to the evolution theory, which seemed finally decisive in the opposite direction, hence in favour of the old Nominalism. Be that how it may, it may be said with certainty that the progress of the descriptive natural sciences, and in connexion with them, of Biology, has in this sphere overthrown those complaints. From the standpoint of every language—whether its names are derived from ancient science, or are as yet not separated from the popular view—all *modern* classifications of organisms are unnatural; *i.e.* they depend upon methodical study of inner relationship instead of upon naïve perceptions of outer resemblance. Thus they are developed from the rough into an infinite delicacy, and are full of *artificial names*, which indeed also produce a new confusion through the variety and conflict of systems. But this terminology, important as Biology is from a philosophical point of view, we will not consider further here as specifically philosophical.

67. The second complaint, on the other hand, maintains its full force to-day. It refers essentially and principally

to *moral* opinions and concepts. With respect to these, customary language has a characteristic function. Its connexions with natural feelings and habits, but also with popular beliefs and with valid norms of judgment, appear here most clearly. The current predicates which are applied to tendencies, actions, characters and men, belong to the words which express as sole significance, or include in their significance, an affirmation or negation—approval or disapproval—of the speaker. But to this subjective relation they give the form of an objective quality (as is also the case, according to the teaching of reformed physics, in a somewhat different sense, with sensations). Now though in many details scope is allowed for individual freedom, hence to doubt and conflict, yet the principles of moral thinking are so deeply embedded in language, that an offence against them is felt and negated not only as an infringement of customary language, but also and principally as a *moral* crime. The approval or disapproval which is open—i.e. made known through words or other signs—whether general or singular, of actions, principles, etc., is itself as an action the basis of *public* approval or disapproval, and whatever may issue therefrom. But the social will of this publicity by no means coincides with that which embodies itself in language and its usage. Of the former there are many kinds, the spheres of which do indeed in many ways cross the spheres of a customary use of language, and here and there coincide, but to a certain extent include it and to a certain extent are contained in it. Social ranks, classes, strata, callings, political bodies, corporations, parties, religious communities, sects, churches, artistic and scientific schools and tendencies—each such group has, at any rate in some particulars, its own judgments as to that which is to be called good or bad, praiseworthy or objectionable—to a large extent also as to that which is true or false. For this too involves affirmation and negation, and not alone because the true is sought and the false avoided, but because by the laws of human nature we generally *affirm* what is willed as true, and what is not willed as false. Every such group, if unanimous at all, is so concerning that which it *wills*—whether this is expressed in habits, or laws, in confessions of faith or of science; and this gives to each a special usage in the *application* of those affirming and negating names. Sometimes these names, even when they take the verbal form of qualities, are only intended to denote and announce the will, but sometimes they certainly claim to be really applicable to things, hence to be valid also as truths. Now philosophers

have often endeavoured to clear up this state of affairs, and to discover and establish *real grounds* for such naming. But as a matter of fact whole streams of those party-views and principles enter into philosophical systems, so that necessarily a great part of the lamented obscurity and confusion of terminology results from them. To a large extent the direct cause of this lies in the still existing dependence of these philosophical disciplines upon theology; while this itself is only an especially strong instance of the meaning which is attributed to such doctrines in general public-life, i.e. by every social will. The doctrines themselves are only social will in a sublimated form. Modern society and the modern State have indeed in a certain degree an *interest* in the *scientific* elaboration even of this sphere, in proportion as they tear themselves free from traditional moral forces, and still more when opposed to them. In proportion again as a scientifically grounded conviction of cultivated men can be serviceable to peace and order within society and the State—to the natural content of the social will. Wherever that scientific elaboration has been energetically undertaken, then it has naturally had for its unanimous opponents almost all those interconflicting parties. Even society—at any rate in Europe—has seldom become so conscious of itself as to demand a pure and strict moral science. But the State tacks between old and new social forces; the more it makes use of the new as material supports, the more it believes that it can entrust its moral supports only to the old.

68. The third argument against ordinary language is also still in force. Language is full of metaphorical expressions. And indeed there is a remarkable interaction between the names for physical (objective) and psychical (subjective) processes. A poetical or mythological mode of thought—to which we have already referred—works through language by personifying things, and by expressing and explaining what happens as their free activities; on the other hand, by means of metaphors, the preponderating mass of psychical activities is materialised and therefore objectified, even by the habit of denoting a grammatical subject as “thing,” while thinking of things as spatially extended or corporeal. Psychological terminology has to fight step by step with both these kinds of natural expression. It has already succeeded to a large extent in overcoming anthropomorphism, but uncertainties and relapses may yet be noticed everywhere. In the modern brilliant development of the psychology of sensations and ideas, a new and manifold application of figurative language

has taken place. Think for instance of the "blending," the "threshold of consciousness," etc., terms which we do not intend to question here. Much greater difficulties again in terminology are met with in the analysis of the feelings and will, in depicting which poetical and rhetorical language is triumphant. But all these difficulties are most closely connected with difficulties in the *matter*, to which a subsequent exposition will lead us.

69. (2) Among the historical causes of the observed phenomenon, as it presents itself at the present time, one is most prominent: the downfall of the European language of scholars, of neo-Latin. So long as we possessed this there was, even if only in the forms of words, a scientific terminology common to all; while at the same time there was an external distinction between the technical expressions of the learned, and the inconstant language of daily life, of poetry, etc. The Latin language was international as the language of the Church; from the Church it had spread itself abroad over old and new arts and sciences. The more these separated and liberated themselves from the Church, the more they became "national," that is primarily nothing else than belonging to a large community of written language, the formation of which they themselves promoted. As Latin was the language of the spiritual class, so the national language belonged to the lay nobility and to the bourgeois strata which stood beside it. But side by side with these social forces there rose up the natural sciences, and consequently the new philosophy. Meanwhile the official science lingered on with little deviation under the spiritual influence; the universities and schools remained faithful in essential matters to the Latin language until towards the end of the eighteenth century. The new philosophy was a realm of free-masters as opposed to the guilds. Of the brilliant names mentioned in § 66 only one belonged to the learned dignitaries, and this one (Christian Wolff) was driven from his chair at Halle in 1723 under threat of the halter. To these free-masters there may still be added (among others) Hartley, Priestley, Hume, Voltaire, Diderot, Helvetius, Rousseau; among the Germans we may mention, still from the seventeenth century, Tschirnhaus, and from the eighteenth Lessing and Herder. But the state of learning among the Germans distinguishes itself in a most remarkable way from that of the two other leading nations—after Galileo's trial Italy sank back into clericalism. While the German universities remained almost untouched by the new paradoxes until towards the end of the seventeenth century, there took place

on the eighteenth a rapid and determined appropriation and elaboration of rationalistic principles. That was a result of the system of competition and of the small courts. Characteristic of it was the reception of Wolff at Marburg; while such figures as that of *Chr. Thomasius* and *Nicol. Hieronymus Gundling* are only conceivable in the small state system of Germany at that time. In France it was the Revolution which first established a free university philosophy, the school of Condillac.

70. But from Germany had issued that many volumed *system* of the new world wisdom, dignified in the language of the learned, which combined to a certain point the antithesis of scholastic strictness of form and free rational content, the work of Chr. Wolff, who was later privy councillor of the Prussian king. For the first time this whole content was systematically subjected to a formed terminology, combined from new and old material, which could not but help powerfully to break down professional antagonism so far as it consisted in handing down the old content in the traditional dish. Without the predominance of the Wolfian philosophy at the universities we could understand neither the deep impression of the "illumination" upon the German bourgeois consciousness, nor the impetus partly due to it of poetic literature, nor again the transforming influence which the greatest thinker who issued from this state of things, Immanuel Kant, was able to attain as *professor* of philosophy. Kant, who recoined the terminology for his ends with the greatest freedom, still remained to a large extent dependent upon what he had received from the books of the Wolfians, as we may see from his habit of adding the Latin rendering in a parenthesis to the German term. But the common language of the republic of learning sank deeper than before into the background, in the nineteenth century which he introduced. The consequent disadvantages affect especially the smaller nations, and thereby indirectly the whole community, in that they hinder the development of capable minds in these smaller nations, and make it more difficult for their works to become known than it is for works in a more widely spread language, which expands a more general capacity of mutual understanding, and where the aid of translations can be more easily called in. On the other hand, smaller nations have indeed the advantage of being more or less *indifferent* to the writings of this larger language, of being able to suck the honey out of the blossoms, instead of being forced to make their way through the enormous production of worthless matter in each particular larger language, as the scholars

of each respective country must do. This is important also for terminology, for the less valuable the thoughts of a man, the less remunerative it is to trouble oneself with his technical expressions.

71. (3) If at one time the universities were accused—and with some truth—of a useless refinement of terminology which forgot realities over words, or at any rate over concepts; still we must look for the cause of the present dissolute condition to the *decline of the scholastic tradition* and the diminished position of philosophy in the instruction of scholars—at least in Germany. Concerning this last point we should read *Paulsen*. The general fact is connected most closely with the subject we have just been dealing with. For through its hostile attitude to the universities and through its exclusion from them, the new philosophy gained, as well as by its inner tendencies, an approximation to the common rational mode of thought or, as it is said, to sound human understanding—common sense—and at the same time to the free, critically reasoning, literature of the native language, which especially since it became periodical is characteristic of the age. The great arena of public opinion is substituted for the disputations in cloisters and halls of audience. Mutual understanding therein is already made more difficult by the unlimited remoteness of opponents, by the lack of personal acquaintance, by the vast number of contending voices. And though the written word can be better weighed than the spoken, yet the haste of production, the absence of any authority, of any visible judge, and the success of boldness, of catch-words, do much to disaccustom *literati* from precision of thought, from the careful choice of words, from conscientiousness in attacking an established terminology, especially when it is used by opponents. The very heads of the anti-scholastic philosophy spoke indeed about exact terminology, but only partially busied themselves about definitions; and here it was in the hottest opponents that the influence of tradition showed itself strongest. But, above all, simplicity was aimed at; a few and easily learned technical expressions, it was thought, must suffice. More and more there developed a philosophical popular literature, which spoke the language of courts, of *salons*, or of markets and public houses—a danger to exact and strict thought which John Locke, one of the heads of this popular philosophy, has noted with great force. “I confess,” he says, at the close of a long chapter on the abuse of words, “in discourses, where we seek rather pleasure and delight, than information and improvement, such ornaments

as are borrowed from them can scarce pass for faults. But yet, if we would speak of things as they are, we must allow that all the art of rhetoric, besides order and clearness, all the artificial and figurative application of words eloquence hath invented, are for nothing else but to insinuate wrong ideas, move the passions, and thereby mislead the judgment; and so, indeed, are perfect cheats . . . and where truth and knowledge are concerned, cannot but be thought a great fault, either of the language or person that makes use of them." But in the preceding sentence he remarks, that "wit and fancy finds easier entertainment in the world than dry truth and real knowledge"; and this remains true to-day, notwithstanding the enormous progress of the sciences, especially in those spheres, which we do not seek to know for any practical utility, the utility of which we do not see, or which cannot even boast of any practical utility, at any rate for external ends. Psychology especially is the natural field for wit and imagination, and here instruction is reluctantly undertaken when it has to vie with entertainment. And yet an entertaining instruction is by no means to be despised; only it should be kept as sharply as possible distinct from the terminologically "dry," esoteric science. But the evil is to some extent inherent in the development. Bold thoughts, in emancipating themselves, break through old forms, fixed rules, stiff technical expressions, as a flame, consuming and illuminating, "wanders along its own path, the free daughter of nature". In Germany especially, in the second half of this century, there is repeated in an abbreviated form the spectacle which the new philosophy as a whole presented as opposed to scholasticism. A new University-philosophy had been established. We will pass over its history here. It culminated in *Hegel*, who spoke his own language, his "jargon" as his opponents mockingly called it. As University-philosophers, opposed to his autocracy, none but Beneke (who never attained an "ordinariat") and especially Herbart, formed their own schools. But then again there appears, with wider influence, a crowd of free-masters, who make an eloquent and unsparing attack upon the whole "speculative" philosophy, just as the moderns did upon scholasticism in general; but especially with complaints against the "incomprehensibility of the language". These are the more successful in winning over the public, because at the same time they pay their homage (with more or less reserve) to *natural science* which is once more breaking away from all philosophy, and because they are again approximating clearly to popular literature. The

names of Schopenhauer, Feuerbach, Büchner, Dühring, von Hartmann—perhaps we must now add Nietzsche—denote the common element in these tendencies. The new school tradition which had formed itself, although in divergent directions, has been quickly disintegrated. Concerning the result of the whole movement—of which naturally the last phase affects us most—for our present subject, we may hear the clear testimony of a thoughtful expert, which our own knowledge can only confirm. "Thus there appeared," says Eucken, "manifold systems and tendencies which side by side, or one after the other, asserted their power and predominance. But none succeeded in permanently maintaining its pre-eminence. This is manifest even in terminology. All these systems may be recognised in the terminology current in general scientific language, though in very different degrees (Hegel still predominates without question). There is indubitably present a certain syncretism, with all its defects and dangers. . . . In particular societies and sects, indeed, a strict observance is maintained in rejecting everything alien. But the terms of such sects are like small coins, which are not current outside their narrow sphere. . . . With us Germans, for instance, so much of a manifold and contradictory nature has been accumulated, that the technical philosophical language hardly continues to form a medium of understanding." Since this was written (about twenty years ago) external conditions have somewhat altered. The study of philosophy at the universities, after years of evanescence, has begun to revive; but now under a new character which the whole development has been preparing: "everywhere we are beginning to philosophise from the basis of the sciences" (Paulsen). But the sciences from which the most energetic and hopeful start is made are not, as in the sixteenth and seventeenth centuries, the natural sciences, but the mental sciences, which are drawing more closely together. Psychology and Sociology (which may also be called Social Psychology) form the centres, Biology constitutes the bridge between the two great spheres. But the improvement and influence of these sciences depends again upon the interaction of German thought with the thought of other languages. So far as universal (logico-speculative) philosophy is yet considered at all, there is no question that in this century German philosophy alone has won a rank for itself, and made its influence felt in all countries. It is different with the particular sciences and with that philosophy which would erect itself upon them. Here co-operation is manifold, though it may

unite only in the summits and branches ; so that it is hard to estimate the relative share of any language in extending our knowledge. This co-operation has become especially fruitful where, as in Biology and Individual-psychology, it rests upon natural sciences which deal with matter of fact and are terminologically firmly established. International understanding finds here its limits. Meanwhile the psychology of the isolated sensations is more and more promoted by experimental methods and treated like a natural science (the way had long been prepared in the physics of the perceptible qualities), and it coins for itself at any rate a limited number of concepts, in such a way that they may be easily transferred into all languages and may yield the foundation of an identical terminology in this branch. The division of all psychical facts into sensations and feelings, although somewhat opposed to the spirit of the English language, seems likely to prevail ; it is only a renewal, adapted to our present knowledge, of the old dichotomy *intellectus-voluntas* : the simple potentialities have been replaced by a number of acts.

72. (4) But in the differences of thought itself we have a powerful, and indeed internal, check to mutual understanding in words (hence a chief cause of the present state of affairs). In principle, the question whether in spite of differing principles, opinions, theories, a common terminology is possible, must be unconditionally answered in the affirmative. That is, indeed, the purpose for which a scientific "language" has always been prized and sought, to put an end to *senseless* and *fruitless* disputes about words, but not to thoughtful and fruitful disputes about things. But Kant was right in opposing the oft-repeated maxim "all disputes of the philosophical schools are to be regarded as *mere* verbal disputes". It is not alone that we find contrary instances, apparent agreements which consist only of words, which mean something different to every one ; not alone that different *judgment* concerning things and processes takes shape even in technical expressions ; but many disputes are empty because the object which A denotes by his term, and of which he states something, is altogether unknown to B, and because B again is neither willing nor able to know this object.

73. Eucken rightly points out how everywhere philosophical language is connected with philosophical thought itself. If we consider from this point of view the development from scholasticism and against it, what we first see is a great work of destruction. The simplification of terminology, to which

we have already referred, corresponds to a simplification of thought itself. The effort to attain this passes through the whole epoch, down to our own time. It finds satisfaction chiefly in the mechanical interpretation of corporeal things. Behind this lies the striving after technical *sway* over matter and the "natural forces". Where the mechanical explanation of processes is not adequate—in chemistry—more weight is given to the analysis of matter into ultimate elements and elementary units: analysis on behalf of synthesis. The whole tendency opposes man to all the rest of nature. Man *thinks* primarily and principally about matter and motion, the connexion and connexions of which he then learns, in order that he may then think of himself, *i.e.* may will, may make matter and motion serviceable to his ends. To matter and motion belong also the human body and its life; man learns about both for the sake of medicine. Everything is machinery; but in the human machine alone there dwells the thinking I, in an incomprehensible way, it is true, but able to direct partially this machine which is casually connected with him, and also to interfere with all the other mechanism. The thinking I, which is of quite another nature, yet subjects to its knowledge and will a dead matter which is alien and indifferent to it, even that of animals and plants. This idea, the necessity of which we sufficiently comprehend when we learn to understand it in its dependence upon actual historical development, has found its classical expression in the system of Descartes, which has formulated these principles in an almost perfect manner: the two opposite extremes which are always issuing anew from them, Phenomenalism (or Idealism, or whatever we may call this "theory of knowledge"—latterly even Realism) and Materialism (in its vulgar form) are only modifications in which the fundamental character repeats itself less clearly. It is Descartes also whose influence upon terminology has been most radically destructive and levelling; if others compete with him, there is yet no doubt that his *success* has been greatest in this respect. He was received into the schools—this is the inner meaning of Wolfianism—and though consequently thoughts and terms proceed again from simple to complex forms (as especially in the particular natural sciences), yet the strict rationalistic type maintains itself. Descartes gave the keynote of *clear and distinct concepts*, banishing all others. In its most important application, that to material nature, this means the exclusive validity of mechanical principles. But even in Physics and much more in Chemistry, this revolutionary claim meets with hot opposition, which is overcome

only in idea and hope; while in Biology it seems to break down altogether at first sight. The real aim of that claim was to put aside what could *only* be thought; clear and distinct thought holds by sensuous perception, while separating from it. It rejects its subjective factors, in order to present in greater purity its objective content—the extension of matter. But here there is no room left for anything which can *only* be thought; the parts of matter are real, and only change their place, *i.e.* their relative position, in motion. The possible is an object of thought alone, hence it seemed a matter of course to reject the possible from reality. In fact, to rationalism everything seems a matter of course, completely natural, which it desires, and it appears so also to itself; hence it rejects and mocks at the scholastic concepts as meaningless. Even the gravitation of the Newtonian physics was censured by the Cartesians as an occult quality, and the concept of chemical affinity was to its originator Boerhaave nothing more than a new expression for that “sympathy” between bodies or elements which is of such ill-fame to all moderns. To these concepts rationalism gives, at any rate provisionally, a mechanical interpretation. On the other hand it throws aside the concept of vital force altogether, together with all the specific forces of the organism derived from it. For a long time during the last generation it seemed triumphant here; it was accepted as an axiom that life could and must be explained only from otherwise known physical and chemical “forces”. Now the concept of force itself is indeed only an object of thought; and this is true again of the differently formulated concept of energy which is latterly being substituted for it. But it is easy to satisfy the realistic claim by reducing all forces to the movements of atoms (invisible parts, as Herbert Spencer says), or by maintaining kinetic energy to be the fundamental form as opposed to all other forms, which are provisionally grouped together as “potential” energies. But a very marked reaction against the rationalistic-mechanical tendencies is just appearing. A vitalistic impulse is again disturbing the biologists; the accepted law of the conservation of energy, in its change of forms, is itself being *opposed* to the mechanical explanation, which as an “arbitrary hypothesis” is said to be “already given up”; while the search for mechanical equivalents, notwithstanding its famous success with regard to heat, is said to be hopeless with other forms of energy, such as electricity (Ostwald). This renewed opposition to the previous and persisting motive-force of natural scientific reason depends partly upon a just insight,

but partly upon a false assumption as to the aim and value of the whole mode of thought, an assumption which indeed has been defended most keenly by the most decided adherents to that thought. It depends upon a just insight, for the view that mechanical causality is completely "conceivable," that, in other words, the *necessity* of the law of persistence upon which it is based may be known *a priori*, is the last refuge of the fancy that the "universe" is and must be somehow "explainable," in the sense of the statement that it has been "created" by a God, i.e. by a spirit; behind the fancy lies the belief in magical effects. This view has been exposed most clearly and fundamentally by David Hume; but, long before, its refutation and subjugation had been contained in the deepest and most radical system of thought which was brought against Christian Aristotelianism, in the system of Spinoza. For Spinoza's proposition, *ratio = causa*, which is ordinarily interpreted as an expression of the most extreme opposition to Hume, of Rationalism in its strictest form, is really something quite different. What he means to say is, there is no "causa," no "real" and therefore "efficient" causes, there is nothing but "ground of knowledge"; but this is the necessary form of our thought, in so far as it forms universal concepts, in which particular concepts are contained, and from which they follow. Hence in this sense the universal concept, the common ground of knowledge or the "cause" of all phenomena, is that Infinite (i.e. that which cannot be expressed by any unit of quantity or number), which Spinoza defines as substance or nature, and which the natural science of to-day, differing only in the name, calls self-maintaining energy. But the opposition depends on the other hand upon a *false assumption*; the assumption that the reduction of the forms of energy to mechanical motion must, or indeed could, mean that by it mechanical motion would be established as the more real or as the only real. This is certainly the uncritical view of most naturalists. The real question can only be, whether an external world, consisting of like units (centres of force), which work mechanically upon each other and thereby change their mutual positions, is for our thought the ultimate numerator to which a mathematical interpretation of phenomena *must* refer all magnitudes and their changes, if it is to proceed consistently. This world is not comprehensible in the sense that we are able to see the effect of a direct impulse as necessary, but in the sense that *if* motion can be thought of as a quantity—as Galileo has taught us to think—*then* it is capable of

increase and decrease, and its changes can therefore be submitted to calculation. That this world which alone is present to thought and unified by our thought, is the only one which is there at all, or is in any sense more real than the world perceived and felt by our senses,—to assume this is a useless and unfounded addition to that “regulative idea,” if we may introduce here that illuminating concept of Kant’s in whose spirit this is thought. But that this most powerful idea should cease to regulate and to serve as guiding maxim is, if we may judge by the previous course of development, just as improbable as it would be undesirable for the progress of knowledge.

74. But the more we maintain and affirm this predominant significance of the mechanical principles, the more is it incumbent upon us, if we are to estimate their *absolute* value aright, to reflect critically upon their origin, and to assign limits to their use accordingly. To criticism the whole of this most fruitful line of thought must appear artificial, and every analysis of all reality, or of any reality which is regarded as independent, into self-subsistent “things” (substances) must appear as something *posited* by human will, or what is here the same, by human thought. Reality itself is so, especially the “external world,” and things are for naïve thought (imagination) as active individuals within it. This naïve thought is, as it were, artificially extended by the reflective understanding; it peoples the world with efficient qualities, forces and souls. But then follows the scientific understanding, which desires to rule over the world and therefore to make it accountable; it negates the naïve thought and the reflexion which depends upon it; it strips the “world” of all that which makes things appear as essentially (qualitatively) different. In that which it allows to remain it finds what it has allowed to remain—matter and motion; these can be subjected to calculation in proportion as, after their apparently given connexions have been removed, they have been resolved into like units which are not further reducible, and which can be arbitrarily placed in new combinations by thought, or indeed by real activities. Now critical reflexion affirms (as we have said) that all separations are posited, and before or behind all, that of subject and object; what is “given” is only their unity and *in reality* (*realiter*, or as the schools would have said *formaliter*) their indissoluble connexion. And again, *after* the positing of an objective “external world” has been critically reproduced, it must be known and recognised anew as a whole, in its essential unity, even when it is torn away from *all*

subjects (not only from the thinker himself), and the withdrawal of all sensuous qualities is therefore as it were granted. The thought which is connected with intuition—or what is the same thing, pure experience—must also correct with energy the mathematical understanding. It says to it, as it were, “You see in the world nothing but similar processes, which repeat themselves from eternity according to the rules which you call natural laws; you see in it nothing but discrete atoms, which combine and part, attract and repel each other; these views of yours are very useful and so far correct; but if you will only forget all your plans and purposes you will allow that you know your matter only as a continuum, and that you as well as I are forced to posit its magnitude or extension as infinite, and therefore as defying all measurement; further you must allow that in experience there are no completely similar events; and that the existence of the universe is given to us only as *one single* process, which we can compare *as a whole* with no other. You believe that the constantly repeated revolution of the planets around their axes and around the sun were ordained from all eternity and would endure to all eternity; but with your own resources we have found that the genesis of these planets and of the sun from the undistinguished unity of glowing masses of gas is a unique event, which we may indeed explain in detail by the known laws of nature, but cannot derive as a total effect from some total antecedent cause, because it points back to unascertainable earlier world-processes *in infinitum*. In the same way the cooling of the crust of the earth and the development of organic life upon it are events which have nothing like them, and which cannot therefore be understood in the same way as events which repeat themselves similarly under sufficiently like conditions, or can even be reproduced artificially at pleasure. If the transformations of energy in the universe tend predominantly to the production of heat, while heat always passes over from warmer to cooler bodies and so tends to distribute itself equally, if then *entropie* strives to a maximum and the total state to the cessation of kinetic energy, as of all forms of energy except heat,—we must accept this predictable history of the universe, like its past history, as a simple fact, the explanation of which is nothing more than its differently expressed description.”

75. We see in fact, throughout the whole of the present century, how investigation and reflexion combine in a criticism of the mechanical Rationalism, which leaves it untouched in a higher thought; though that criticism

oftener enters into phenomena as pure negation without understanding. In its right understanding it is a necessary evolution of the Rationalism which knows itself and the limits of its own power. Its progress within objective natural science is marked by the deeper study of the processes of life. But as philosophical inferences, in which it describes its curves, the following demand recognition: (1) The existence for a deductive thought of the infinite previous to the finite, which enables us also to think of unity before the manifold, of the universal before the particular, of the whole before its parts. (2) The predominance and victory

	Motion		Rest
of the ideas	Change	over the ideas	Identity
	Becoming		Being.

For rationalistic thought the victorious ideas are indeed indispensable; but they are conceived of as being added from without. The state of rest, etc., is the natural, as in a constructed machine, say in a clock which has not yet been wound up, a comparison which is used by almost all these thinkers. The impulse must be given to matter from without, since every part receives it from another; here the system demands its *Deus* as the originator of motion, of change, of becoming. The other mode of thought, which we may begin by regarding as the empirical, accepts matter in motion as the fact of facts, and does not trouble itself about the old concept according to which motion does not belong to the "essence" of matter. Impenetrable atoms and their appropriate empty spaces are for it only auxiliary ideas, however necessary they may be for rational thought. Here lies also the point where the doctrine of the conservation and transformation of energy breaks the old form of the mechanical system. (3) As in the conservative system of the universe the total amount of energy maintains itself while its forms continually change, so the totality of a living organism maintains itself as the persistence of the relations of its parts throughout the continuous change of the parts. Life is at the same time reproduction and destruction; it exists, therefore, together with the tendency to its opposite, for which reason Bichat defines it as the fight against death, and another French physiologist, Claude Bernard, ventures upon the dialectical proposition "*La vie c'est la mort*". (4) Thus the reality of every moment or any limited portion of time, carries in it as its negation the real possibility, inclination, tendency, disposition, power or capability, or whatever we may call it, to all following moments; possibility is therefore in no way an object of thought alone, but it is reality itself

in its necessary relation to time, *i.e.* to activity, performance, completion. It must be noted most carefully, how here the regenerated Aristotelian concepts meet with the concepts of modern physics. For what is energy, which is now accosted as the true reality, but *capacity*, inclination, tendency (or whatever it is called) to perform work?

76. But this whole renewal of thought is of the deepest importance for *Psychology*. Critical (or empirical, or positive) reflexion has for its chief result, that there is no ground in the given facts for the separation of subject and object. The Cartesian view, that a subject is connected only with the human body and then as a miracle, is definitely abolished by the theory of evolution. However radically it may be opposed to tradition and to naïve opinion, that view is nevertheless a remnant of the old belief that the soul has its seat in the body as another being; a belief which was much refined in Aristotelianism, but in the Christian scholasticism, at any rate for the *anima rationalis*, was reduced again to its vulgar form. For Descartes, as for his predecessors, the soul perceives movements of the body and reacts upon them. The actual facts are sufficiently described by saying that the body perceives itself and reacts upon itself, *i.e.* as a whole upon its parts. We may give the body, so far as it is subject, *i.e.* psychical fact, the traditional name of "soul". Body and soul are then different names of one and the same object, which as body is perceptible in its parts, but as whole, *i.e.* as persistent relations of the parts (what the Aristotelians called form) is, like the soul, an object of thought alone.

77. Between Descartes as Intellectualist (regarding the soul as independent of all experience) and his sensationalist opponents (Gassendi, Hobbes, Locke, Condillac) there is from the present point of view no essential difference. The latter also retain the soul as another being, but treat it still more as something passive, because they think that they can sufficiently explain sensations by the effects of "impressions" of external objects, and rightly derive thought—as a process of memory—from complications of persistent sensations. This view has transplanted itself into the whole of the modern Association-Psychology, which, in connexion with the Physiology of the nervous system, has resolved so great a part of the facts of knowledge into its atoms (with which *Carus* compares the isolated sensations) and has synthetically reconstructed them. But the philosophers of this tendency, especially the Herbartians, return quite consistently to the soul as a simple being, as something which must correspond to the grammatical and logical (*i.e.* denoted by a name)

subject. But the obstacles to this thought are the feelings, especially that complex of sensations combined with feelings to which we give the name of will.

78. Unprejudiced self-knowledge now allies itself with the doctrine of descent to posit feeling as identical with the fact of life, and consequently as the constant and original element which is common to all living beings. Vital feelings are feelings of activity, and the apparently simple fact of the reflex action of human sense-organs to external stimulus is really the feeling of a most complicated and late-developed activity. It is not our business here to follow this Psychology into its consequences. All that we need to do, is to emphasise that a *terminology*, which adheres to its principles, is in confusion and conflict with a terminology which refers essentially to the simplicity of the soul-substance, and partly to its passive, partly to its human-rational nature. It is characteristic of the difficulty with which the biological point of view makes its way, that even the psychologists who have made most progress in this respect continue (1) to begin with the psychology of the senses, (2) to represent, or at any rate to treat, human psychology as universal psychology.

79. Connected with this, moreover, is the obstinate persistence of the view that intelligence belongs to the essence of the soul, a view held to be so certain by one of the most able investigators that he represents the willed adaptation of means to ends as the criterion of psychical facts in general (James). Finally, the confusion which often lies hidden in the terms consciousness, unconscious, sub-conscious, may be largely ascribed to the circumstance that the concept of consciousness is derived from human thought, but because thought is taken for the essence of the human soul, therefore "consciousness" is sometimes a state which can only be mediated by thought,—as a rule by the recollection of words, sometimes simply psychical facts in so far as they are present. But because their presence is again thought of in analogy with thoughts, or at any rate with their elements (sensations and ideas), therefore the necessary concepts of involution and evolution, of growth and differentiation, of all those processes which denote psychical life just as they do physical life, do *not* get their appropriate validity and naming.

80. It is chiefly the doctrine of the will which suffers from this, as from the dependence of terminology upon customary language. If we take as our basis the concept of the vital feeling, and of the manifold organic feelings of activity into

which it develops in the animal along with the organism itself, then this, like life in all its phenomena, is twofold : assimilative and casting aside, receptive and repellent, affirming and negating. Now among the vital activities of animal beings those of the nervous system in their original unity with those of the muscular system, are altogether characteristic, as supporting the motor changes effected by external stimuli. The unity of the vital feeling in a corresponding way separates into the similar feelings of motor activity, and into the more strongly modified and infinitely manifold feelings of reaction to external stimuli—the sensations. This animal differentiation does not coincide with the original vegetative differentiation, although allied to it. But this repeats itself in a most marked manner with the higher development of the sensations ; a psychical organism within the soul, like the cerebrum within the body, is formed as a complex tissue of possible and actual connexions of sensations, a tissue of which the essential functions are the positing of likeness and difference, *i.e.* are assimilation and separation, reception and rejection, affirmation and negation, completing itself in man by the possession of a sign-system of words as the function of judgment, and so as thought. Now we have the word “Will”. It means, the idea (A) of something active (grammatical subject) ; (B) of something “passive” (grammatical object). As A the idea is, (i.) equal to the idea of the soul in general ; (ii.) equal to it in so far as it is thought of as working outwards, in opposition to the intellect as the soul receiving from without ; (iii.) specifically as ruling, commanding, guiding, causing, movements of the body. As B, it is something thought, a thought or a complex of thoughts. While therefore the idea A is applicable everywhere where a body is thought to have a soul in it, hence at least in all animal organisms, the idea B is applicable only to men. But these ideas are confused together. Like the soul in general, the will is sometimes used as equivalent to the intelligence, or defined as something intelligent ; then there arises in contrast with intelligent thought the concept of intelligent “instinct,” instinct “guides” the animal, instinct “tells” him, “teaches” him, etc. On the other hand, as product of the thinking I the will becomes as it were its instrument, by means of which it issues and fulfils its orders ; it is then very easily simply identified with the thinking I, is therefore its own object, and this corresponds best to the feeling and the idea of the “free” will. But as subject or as object, the idea which the word is meant to express always has a reference

to the future, to a becoming, hence simply to a happening; but it can without difficulty be generalised and refer also to the existent; the common element is then the affirmation and—in the opposite sense—the negation of a state or of a change. Hereby it becomes identical with the feeling of pleasure and pain; but these are indissolubly connected with desire and dislike, hope and fear, in short with all positive and negative “wishes,” which are again conditioned by sensation, idea, thought of a future state. Thus, if we follow language, Will may be identified with or distinguished from, all particular and connected sensations and thoughts; it may be conceived of as something quite illogical, unmediated (as actual “caprice” or fancy), but also on the other hand as a strictly logical, systematic structure.

81. Physiologists and Psychologists are always tormenting themselves with new investigations as to what it really is, but find again that “Desire, wish, will, are states of mind, which every one knows, and which no definition can make plainer” (James). But then they are distinguished: (1) “We desire to feel, to have, to do, all sort of things which at the moment are not felt, had, or done; (2) if with the desire there goes a sense that attainment is not possible, we simply *wish*; but (3) if we believe that the end (attainment) is in our power, we *will* that the desired feeling, having or doing shall be real”. We really have here an arbitrary limitation of customary language which would perhaps be not to blame if the author remained true to it; but after a very thorough investigation he finds that the effort of attention is the essential phenomenon of the will, and thinks that every reader must know that it is so from his own experience. The first limitation still includes every “spontaneous” beginning of movement of the body, hence also those “involuntary” ones which follow immediately upon sensation or idea; the others expressly make “stable” thought, held with exertion the condition of the will; here only the “voluntary” activities of *human beings* are thought of. *Wundt* too has previously declared that “the will can be defined as little as consciousness”; but then he took “apperception” or the “inner volitional activity which is given from the first with consciousness” as the decisive and alone sufficient characteristic of the concept, and from it he derived the “external” act of will as “apperception of a motor idea”. In his later (small) *Psychologie* he regards the process of will in quite a different way, defining it as an affection (a connected course of feeling of a uniform character) together

with the ultimate end issuing from it of a sudden change of the idea- and feeling-content. Finally in the deep expositions of his *System* he takes the will in a sense which is expressly based upon parallelism, or indeed upon identity of body and soul; it becomes the psychical content of life, sometimes distinguished as the "pure will," a "transcendental soul-concept, which empirical Psychology demands as the ultimate ground of the unity of psychical processes, but of which it can make absolutely no use for its purposes". "If it would gain from it a soul-concept useful for the empirical derivation of the facts of inner experience, it must forthwith extend it into a composite unity including the possibility of a plurality of presentative activities." For the most part the physiologists adhere to a concept of the will, which makes it, after the fashion of the Cartesian soul, a rational person within the body; they like to represent it as telegraphing and issuing orders. But some, like Huxley, are consistent and materialistic enough to think of *all* animal, hence also human, activities as "automatic," and of *all* "phenomena of consciousness" as mere by-products of the vital process, reacting in no way upon it. They differ from the Identity-psychology only in the obstinately maintained prejudice that only the objective or physical is "real"—i.e. they differ fundamentally only in *terminology*; for no one has ever been able to say in what particular sense the former has a *right* to be called real, while the psychical "accompaniment" has not. We regard Wundt's latest exposition, together with its terminology, as very fruitful; but even Wundt has not yet given us a psychology which develops and derives the particular and most particular human wills from the universal and pure will, according to the given programme. Even for Wundt the name remains *previous* to the concept, or at any rate simultaneous with it. But it is for ever in vain to hunt after that which the will really is. To obtain a fundamental view of the facts, that is the only important task; and that indeed is made very difficult by the fact that we can express them only in words which already mean something else. But we might try to avoid such words, to form the concept entirely from words *already defined*, and then to assign to it the abbreviating name, e.g. "Will". It is in this way that we have endeavoured—though anticipating concepts—to determine as the human individual will that combination of ideas which is in any way "positing" (*quasi* legislative) for, or "effects," subsequent ideas and combinations of ideas, we may now say, which contain them in it as possible; it may be that it completes and exhausts

itself (or its "effect") in a single "action," or that it forms the *rule* of repeated similar activities—i.e. of the feelings of activities. All that we maintain is, the value of this *concept* for the understanding of undoubted facts, e.g. of the fact that for every one something becomes the sign or mark of something else, without being it by nature. The *name* is, in and for itself, completely indifferent; we think indeed that it extracts as it were the quintessence from everything which is ever thought of as human-rational will; for this much is common to all those ideas: something affirming itself, affirming or denying other feelings and ideas. It is this again upon which the relation of every particular will to others is based; and again a concept is necessary which expresses the unity of several wills, as affirming itself and affirming or denying its members. This we called "social will". In it, it became obvious and clear that will, or whatever we may call the psychical power, is only apparently the "cause" of bodily movements, that it is nothing but power over its like—ideas and feelings. But the relation of the individual will to itself and to the body belonging to it is nothing other. This is difficult, but not impossible to think. It must be learned and practised.

(To be concluded.)