

facts; if we take our stand on the former, we are compelled to regard all objective experience as irrational, because it does not correspond to the pure identity of thought.

In Aristotle's view of logic it cannot be said that this difficulty is clearly solved, though he seems to have seen the error of both extremes. On the one hand he often recognizes the synthetic character of the process of induction, as when he speaks of the universal idea or law as a central principle, in which we must find the key to all the difficulties suggested by different aspects of a given subject. Yet in other places we trace the influence of a merely analytic conception of that process as a process in which the universal is to be reached by abstracting from the peculiarities of individuals. And this conception of it is favoured by Aristotle's metaphysical theory, according to which the forms of things in the finite world are manifested in a resisting matter, a matter which prevents them from being perfectly or universally realized. For, in so far as this is the case, the facts will not be entirely explained by the knowledge of the form, and the knowledge of the form must be obtained, not by combining all the facts, but rather by abstracting from them. Again, in Aristotle's account of the process of thought in the *Prior Analytics*, he regards it as a formal deductive process; and, though in the *Posterior Analytics* he attempts to give a synthetic meaning to the syllogism by treating it as the method in which the properties of a thing may be proved of it, or combined with it, through its essential definition, yet this adventitious meaning bestowed upon the syllogistic process does not alter its essential nature. The ultimate source of this inadequate view of the process of thought seems to lie in Aristotle's imperfect conception of the unity or identity which is for him the type of knowledge. For, though, both in the *Metaphysic* and the *De Anima*, he defines that identity as self-consciousness or as a consciousness of objects which is identical with self-consciousness, yet he does not seem clearly to distinguish between a unity in which there is no difference and a unity in which difference is transcended and reconciled. This seems to be shown by his description of the principles which reason apprehends as *individua* or indivisible unities, rather than unities which imply, while they transcend, difference. Yet, in this definition of the unity of knowledge as self-consciousness, Aristotle has implicitly admitted that there is a duality or difference in the unity itself, and this might have been expected to modify his conception of the relation of consciousness to its objects. For, as self-consciousness is not simple like a chemical element, but only in the sense that it is an indissoluble unity of opposites, it might have been anticipated that one who had realized self-consciousness as the principle of knowledge would be able to regard the opposition between the consciousness of self and the consciousness of the world as itself also capable of being conceived as a unity.

This misconception of Aristotle may be shown in another way. In the *Metaphysic* we find him laying down what is called the logical law of contradiction as the ultimate principle of knowledge. The meaning of this principle, however, as Aristotle states it, is simply that thought in its essence is definition or distinction. If, as Heraclitus says, everything at once is and is not, if we cannot attach any definite predicates to things by which they may be distinguished from each other, then, as Aristotle argues, thought is chaos, and knowledge is impossible. If determination be not negation, if the assertion of A be not the negation of not-A, then there is no meaning in words. The criticism to be made on this view is obviously, not that it is a false statement of the law of thought, but that it is an imperfect statement of it.

Thought is undoubtedly distinction; and, if all distinction be confounded, no meaning can be apprehended or expressed. But thought is also relation and connexion of the things distinguished, and this aspect of it is equally important with the other. Aristotle shows his one-sidedness—a one-sidedness which throws him into opposition to Plato, but which enables him to correct Plato only by falling into the opposite error—when he exclusively fixes his attention on the “differentiating” aspect of knowledge, and takes no notice of the “integrating” aspect of it. It is easy to see that this exclusive attention to one side of the truth may lead in many ways to a distorted view both of the world and of the intelligence that apprehends it. If Heraclitus be interpreted as simply denying the right of thought to introduce its definiteness into the flux of sense, nothing but absolute scepticism can come out of his philosophy; and Aristotle was right in maintaining that it is only as the flux is brought to a stand, and the universal is fixed as a permanent and definite object of thought,<sup>1</sup> that knowledge becomes possible. But, on the other hand, if distinction be taken as absolute, if the definite assertion of a thing be taken as a negation of all relation to what it is not, if the fixity of thought be taken as an abstract self-identity which excludes all the movement of finite things wherein they show their finitude and pass beyond themselves into other things, then knowledge will be equally impossible. Our consciousness, on such a theory, would be disintegrated into parts which would own no connexion with each other; nor would it be possible for us to think of things as, in spite of their differences, bound together into the unity of one world. The law of contradiction or distinction, therefore, is likely to lead to serious misconceptions, unless it be complemented by a law of relation—a law expressing the truth that there is a unity which transcends all distinction. For all intelligible distinction—all distinction of things in the intelligible world—must be subordinate to their unity as belonging to that world, and therefore essentially connected with each other and with the intelligence. In such a world, in other words, there can be no absolute distinctions or differences (not even between being and not-being); for distinction without relation is impossible, and a conception held in absolute isolation from all correlated conceptions ceases to have any meaning. This does not, of course, imply a negation of the law of contradiction within its own sphere, but it does imply that that sphere is limited, and that there is no absolute contradiction. All opposition is within a presupposed unity, and therefore points to a higher reconciliation, a reconciliation which is reached when we show that the opposition is one of correlative elements.

The great step in logical theory which was taken by the idealistic philosophy of the post-Kantian period was simply to dissipate the confusion which had prevailed so long between that bare or formal identity, which is but the beginning of thought and knowledge, and that concrete unity of difference, which is its highest idea and end. It was, in other words, to correct and complete the conceptions of thought as analytical, and as externally synthetic, by the conception of it as self-determining, to show that it is a unity which manifests itself in difference and opposition, yet in all this, even when it seems to be dealing with an object which is altogether external to it, is really developing and revealing itself. This new movement of thought might, in one point of view, be described as the addition of another logic to the logic of analysis and the logic of inductive synthesis which were already in existence. But it was really more than this; for the new logic was not merely an external addition

<sup>1</sup> ἡρεμήσαντος τοῦ κινουμένου ἐν τῷ ψυχῆ, *AN. Post.*, II. 19.

to the old logics, it also put a new meaning into these logics by bringing to light the principles that were involved in them. At the same time it broke down the division that had been supposed to exist between logic and metaphysics, between the form or method of thought and its matter. It showed that thought itself contains a matter from which it cannot be separated, and that it is only by reason of this matter that it is able to ask intelligent questions of nature, and to get from nature intelligible answers. A short space must be devoted to explain this relation of the three logics to each other.

The analytic logic fairly represents our first scientific attitude to the world, in which we concentrate our attention upon the facts as they are given in experience, with no thought of any mental synthesis through which they are given. To ourselves we seem to have to do with an object which is altogether independent of our thought, and what we need in order to know it is to keep ourselves in a purely receptive attitude. All we can do is to analyse what is given, without adding anything of our own to it. It has, however, already been pointed out that this apparent self-abnegation is possible only because, in abnegating our individual point of view, we do not abnegate the point of view that belongs to us as universal or thinking subjects. In other words, the objectivity of knowledge thus attained is not the ceasing of the activity of our thought, but rather of all that interferes with that activity. We seem to abstract from ourselves, but what we do abstract from is only the individuality that stands between us and the world. The scientific observer who has thus denied himself, however, is not necessarily conscious of the meaning of what he has done. The immediate expression of his consciousness is not “I think the object,” but “it, the object, is”; and the more intensely active he is the more his activity is lost for him in the object of it. His whole work is, for himself, only the analysis of given facts, and for the rest he seems to have nothing to do but to take the world as he finds it. The voice of nature to which he listens is for him not his own voice but the voice of a stranger, and it does not occur to him to reflect that nature could not speak to any one but a conscious self. His business is to determine things as they present themselves, to enumerate their qualities, to measure their quantities; and his logic accordingly is a logic governed by the idea of the relative comprehension and extension of the things which he thus names and classifies. Such an analytic logic seems to be all that is necessary, because the only predicates by which things are as yet determined are those which are involved in their presence to us in perception, and as perceived they seem to be at once given in all their reality to the mind that apprehends them.

A step is taken beyond this first naive consciousness of things, whenever a distinction is made between appearance and reality, or whenever it is seen that the things perceived are essentially related to each other, and that therefore they cannot be known by their immediate presence to sense, but only by a mind which relates that which is, to that which is not, immediately perceived. If “the shows of things are least themselves,” we must go beyond the shows in order to know them; we must seek out the permanent for that which is given as transient, the law for the phenomenon, the cause for the effect. The process of thought in knowledge therefore is no longer lost in its immediate object, out is, partly at least, distinguished from it. For just in proportion as the reality is separated from the appearance does the knower become conscious of an activity of his own thought in determining things. From this point of view nature is no longer an object which spontaneously reveals itself to us, but rather one which hides its meaning from us, and out of which we must wring its secret by persistent

questioning. And, as this questioning process obviously has not its direction determined purely by the object itself, it becomes manifest that the mind must bring with it the categories by which it seeks to make nature intelligible. To ask for the causes of things, or the laws of things, presupposes that the immediate appearance of them does not correspond to an idea of reality which the mind brings with it, and by which it judges the appearance. Nature is supposed to be given to or perceived by us as a multitude of objects in space passing through successive changes in time; and what science seeks is to discover a necessity of connexion running through all this apparently contingent coexistence and succession and binding it into a system. Science, therefore, seems to question nature by means of an idea of the necessary interdependence and connexion of all things, as parts of one systematic whole, governed by general laws—an idea which it does not get from nature, but which it brings to nature. Hence the logic in which this process of investigation expresses its consciousness of itself will be a synthetic logic, a logic built on certain principles which are conceived to be independent of experience, and by the aid of which we may so transform that experience, so penetrate into it or get beyond it, as to find for it a better explanation than that which it immediately gives of itself. The *Posterior Analytic*, in which Aristotle brings in the idea of cause to vivify the syllogistic process, or supply a real meaning to it, may already be regarded as a first essay in this direction. And the theory of inductive logic, as explained by Bacon and his successors down to Mill, is a continuous attempt to determine what are the principles and methods on which experience must be questioned, in order to extract from it a knowledge which is not given in immediate perception.

It was, however, Hume who first brought into a clear light the subjectivity of the principles postulated in this logic, and especially of the principle of causality, which is the most important of them. In thus contrasting the subjectivity of the principles of science with the objectivity of the facts to which they are applied, it was his intention to cast doubt on the science which is based on the application of the former to the latter. The principles, he maintains, are not legitimately derived from the facts, therefore they cannot legitimately be used to interpret them. They are due to the influence of habit, which by an illegitimate process raises frequency of occurrence into the universality and necessity of law, and so changes a mere subjective association of ideas into an assured belief and expectation of objective facts. The answer given by Kant to this sceptical criticism of science involved a rejection of that very opposition of subjective and objective upon which it was based. Without necessary and universal principles, the experience of things as qualitatively and quantitatively determined objects, coexisting in space and passing through changes in time (or even the determination of the successive states of the subject as successive), would itself have been impossible. Hence necessity of thought cannot be derived from a frequent experience of such objects. It is true that the determination of things as permanent substances reciprocally acting on each other, according to universal laws, goes beyond the determination of them as qualified and quantified phenomena in space and time. But both determinations are possible only through the same *a priori* principle, and we cannot admit the former determination without implicitly admitting the latter. As, therefore, it is through the necessity and universality of thought that objects exist for us, even before the application to them of the principles of scientific induction, and as the application of those principles is only a further step in that *a priori* synthesis which is already involved in the perception of these objects, we have no reason for treating

the former kind of synthesis as objectively valid which does not equally apply to the latter.

This vindication of the principles of induction has, however, a further consequence, which was not clearly seen by Kant. It is fatal to the antithesis of the "given" and the "known," of what is perceived and what is conceived, of *natura materialiter spectata* and *natura formaliter spectata*, which he still admitted. For that antithesis really rested on the idea that there is no universal and necessary principle of determination of things involved in the apprehension of them as qualified and quantified phenomena in space and time. So soon, therefore, as it is seen that there is such a principle, and that the first determination of things as objects of perception is due to the same *a priori* synthesis which determines them in the second place as objects of experience, the ground for that contrast between reality and appearance on which the theory of induction rested is taken away. Kant, indeed, finds a new meaning for that contrast by interpreting it as referring, not to the opposition between things as they are given and things as they are known, but to a supposed opposition between things as they are given and known in experience and things as they are in themselves out of experience. This new antithesis of reality and appearance, however, only means that the former antithesis has broken down, and that therefore the ideal of knowledge based upon it has yielded to a new ideal. The so-called things in themselves are noumena, the objects of an intuitive or perceptive understanding, *i.e.*, objects in which the contrast of perception and conception, of given and known, is transcended. We can make Kant's theory consistent only by supposing him to mean that the conception of the world as a system of substances determining each other according to universal laws does not yet satisfy the idea of knowledge which reason brings with it. In other words, just as science from the point of view of necessary law found something wanting in the conception of the world as a mere complex of quantified and qualified phenomena in space and time, so philosophy, in view of a still higher ideal of knowledge, may condemn the conception of the world as a system of objects determined by necessary laws of relation as itself inadequate and imperfect. And we have seen that this higher ideal is that which is involved in the unity of self-consciousness. Unfortunately Kant was unable, as Aristotle had been unable, to distinguish this idea from the idea of an abstract identity in which there is no room for even a relative difference of perception and conception, and therefore the perceptive understanding was named by him only to be rejected.

If, however, we correct this inadequacy of Kant's statement, as his later works enable us partly to correct it, we see that it involves a new idea of knowledge and a new logic,—a logic governed by the idea of organic unity and development, just as the analytic logic had been governed by the idea of identity, and as the inductive logic had been governed by the idea of necessary law. For, if the unity of self-consciousness be our type of knowledge, truth must mean to us, not the apprehension of objects as self-identical things, distinguished from each other in quantity and quality, nor even the determination of such things as standing in necessary relations to each other. It must mean the determination of the world (and of whatever in it is in any sense an independent reality, so far as it is so independent) as a unity which realizes itself in and through difference, a unity which is indeed determined, but determined by itself. In a view of the world which is governed by this category, correlation must be reinterpreted as organic unity, and causation as development. Its logical method must be neither analytical nor synthetical, or rather it must be both at once, *i.e.*, it must endeavour to

exhibit the process of things as the evolution of a unity which is at once self-differentiating and self-integrating, which manifests itself in difference, that through difference it may return upon itself. Further, as this logic arises simply out of a deeper consciousness of that which was contained in the two previous logics, so it first enables us to explain them. In other words, the advance from the analytic to the inductive logic, and again from the inductive to what may be called the genetic logic, may itself be shown to be a self-determined development of thought, in which the first two steps are the imperfect manifestation of a principle fully revealed only in the last step. The consciousness of self-identical objects, independent of each other and of thought, is thus only the beginning of a process of knowledge which reaches its second stage in the determination of these objects as essentially related to each other, and which finds its ultimate end in the knowledge of the correlated objects as essentially related to the mind that knows them. Or if, in this last point of view, things are still conceived as having a certain relative independence of the mind, it can only be in so far as they are in the Leibnizian sense monads, or microcosms,—*i.e.*, in so far as they are self-determined, and so have, in the narrower circle of their individual life, something analogous to the self-completed nature of the world, when it is contemplated in its unity with its spiritual principle.

Such a genetic logic is inconsistent with any absolute distinction between the *a priori* and *a posteriori* element in knowledge. For here the *a priori* is not simply a law of necessary connexion to be applied to an external matter, but a principle of organic development, a principle which, from the very nature of it, cannot be applied to a foreign matter. To treat the world as organic is to apply to it a category which is inconsistent with its being something merely given or externally presented to thought. The relation of things to thought must itself be brought under the same category of organic unity which is applied to the relation of things to each other in the world, otherwise the externality of the world to the thought for which it is will contradict the conception of the world as itself organic. Hence the distinction of *a priori* and *a posteriori*, so far as it is maintained at all, must shrink to something secondary and relative. It can be maintained only as a distinction of thought from its object, which presupposes their ultimate unity. From this point of view logic may be said to deal with the *a priori*, in so far as it treats the general conditions and methods of knowledge without reference to any particular object. Logic must exhibit abstractly the process by which the intelligence establishes its unity with the intelligible world; or, to put it in another way, it must demonstrate that the being of things can be truly conceived only as their being for thought. It is limited to the *a priori*, in the sense that it ends with the idea that the *esse* of things is their *intelligi*, and does not consider how this real intelligence or intelligible reality manifests itself in the concrete world of nature and spirit.

In this sense logic cannot be separated from metaphysic if metaphysic be confined to ontology. They are simply two aspects of one science, which we may regard either as determining the idea of being or the idea of knowing. The process of knowing is never really a formal process; it always involves the application of certain categories, and these categories are simply successive definitions of being or reality. We cannot separate the category from the movement of thought by which it is evolved and applied, nor the transition from lower to higher categories from changes of logical method. Hence a logic divorced from metaphysic inevitably becomes empty and unreal, and a metaphysic divorced from logic reduces itself to a kind of dictionary of abstract terms, which are put in no living

relation to each other. For such a logic and such a metaphysic must rest on the assumption of an absolute division between being and thought, the very two terms the unity of which it must be the utmost object of both logic and metaphysic to prove and to produce.

4. *The Relation of Metaphysic to Philosophy of Religion.*—The possibility of a "first philosophy," as we have already seen, is essentially bound up with the possibility of what we may call a last philosophy. It is only in so far as we can rise above the point of view of the individual and the dualism of the ordinary consciousness—in so far, in other words, as we can have at least an anticipative consciousness of that last unity in which all the differences of things from each other and from the mind that knows them are explained and transcended—that we are able to go back to that first unity which all these differences presuppose. The life of man begins with a divided consciousness, with a consciousness of self which is opposed to the consciousness of what is not-self, with a consciousness of a multiplicity of particulars which do not seem to be bound together by any one universal principle. Such division and apparent independence of what are really parts of one whole is characteristic of nature, and in spirit it is at first only so far transcended that it has become conscious of itself. A conscious difference, however, as it is a difference in consciousness, is no longer an unmediated difference. It is a difference through which the unity has begun to show itself, and which therefore the unity is on the way to subordinate. And all the development of consciousness and self-consciousness is just the process through which this subordination is carried out, up to the point at which the difference is seen to be nothing but the manifestation of the unity. Just so far, therefore, as this end is present to us,—so far as we are able to look forward to the solution or reconciliation of all the divisions and oppositions of which we are conscious and to see that there is an all-embracing unity which they cannot destroy,—is it possible that we should look back to the beginning or first unity, and recognize that these divisions and oppositions are but the manifestations of it. Thus the extremes of abstractness and of concreteness of thought are bound up together. The freedom of intelligence by which we get rid of the complexity of our actual life, and direct our thoughts to the simplest and most elementary conditions of being and knowing, is possible only to those who are not limited to that life, but can regard it and all its finite concerns from the point of view of the infinite and the universal. In this sense it is true that religion and metaphysic spring from the same source, and that it is possible to vindicate the rationality of religion only on metaphysical principles. The philosophy of religion is, in fact, only the last application or final expression of metaphysic; and, conversely, a metaphysic which is not capable of furnishing an explanation of religion contradicts itself.

This last remark affords us a kind of criterion of a true metaphysic. Can it or can it not explain religion? If it cannot, it must be equally unable to explain its own possibility, and therefore implicitly it condemns itself. Thus a pantheistic system, which loses the subject in the absolute substance, cannot explain how that subject should apprehend the substance of which it is but a transitory mode, nor, on the other hand, can it explain why the substance should manifest itself in and to a subject. And the same criticism may be made on all theories in which the first or metaphysical unity is abstractly opposed to the manifoldness and contingency of things. Not only of Spinoza, but also of Kant, of Fichte, and even of Schelling, it might with some truth be said that their absolute is like the lion's den, towards which all the tracks are directed, while none come from it. It is essential that the first unity should be such as to

explain the possibility of difference and division, for, if it is not, then the return to unity out of difference is made as accidental as the difference itself. When Aristotle represented the Divine Being as pure self-consciousness, pure form without matter, he found himself unable to account for the existence of any world in which form was realized in matter. When therefore he speaks of the process of the finite world by which it returns to God, and attributes to nature a will, which is directed to the good as its final cause, his theory seems to be little more than a metaphor in which the analogy of consciousness is applied to the unconscious. For, if the Divine Being is not manifested in the world, any tendency of the world to realize the good becomes an inexplicable fact. A similar difficulty is, as we saw, involved in Kant's confusion of the bare identity of understanding with the absolute unity of knowledge. Reducing the unity of self-consciousness to such a bare identity, Kant could not be expected to see, what Aristotle had not seen, that pure self-consciousness is essentially related to anything but itself. Hence the various attempts which he made in his ethical works and in his *Criticism of Judgment* to find a link of connexion between the noumenal and the empirical were necessarily condemned even by himself as the expressions of a merely regulative and subjective principle of knowledge. Even Fichte, who found in the thought, which is for him the *prius* of all existence, a principle of differentiation and integration which explained how self-consciousness in us should be necessarily correlative with the consciousness of a world, was unable to free himself from the Kantian opposition of a noumenal identity in which there is no difference to a phenomenal unity which is realized in difference. Hence by him also the return out of difference is regarded as an impossibility, or as a *processus in infinitum*, and the absolute unity as that which is beyond all knowledge and only apprehended by faith.

If we look to completely elaborated theories, and disregard all tentative and imperfect sketches, it may fairly be said that all that has as yet been done in the region of pure metaphysic is contained in two works, in the *Metaphysic* of Aristotle and the *Logic* of Hegel. And up to a certain point the lesson which they teach is one and the same, *viz.*, that the ultimate unity which is presupposed in all differences is the unity of thought with itself, the unity of self-consciousness, and that in this unity is contained the type of all science, and the form of all existence; in other words,  $I = I$  is the formula of the universe. The difference between these two works has, however, already been indicated. With Aristotle, because he neglects the essential relation of self-consciousness to consciousness, or of the conscious self to the world of objects in space and time, the unity of self-consciousness tends to pass, as it did pass with the Neo-Platonists, into a pure identity without difference. In the Hegelian logic, on the other hand, self-consciousness is interpreted as a unity which realizes itself through difference and the reconciliation of difference—as, in fact, an organic unity of elements, which exist only as they pass into each other. In other words, it is shown that the differentiating movement by which the subjective and the objective self are opposed and the integrating movement by which they are reunited are both essential. Hence we cannot think of the conscious self as a simple resting identity, but only as an active self-determining principle; nor can we think of its self-determination as a pure affirmation of itself, without any negation, but only as an affirmation which involves a double negation—an opposition of two elements which yet are essentially united. Each factor in this unity, in fact, is necessarily conceived as passing beyond itself into the other; the subject is subject only as it relates itself to the object, the object is