

do not wait for scientific ethics to judge and act morally, any more than they wait for logic to reason correctly. It is this line of thought which is universalized and mythically expressed by Plato in his doctrine of "reminiscence." According to this myth, we were conscious of ideas or universals in our pre-natal state; we forgot them in the shock of birth into this mortal life; but in feeling or sharing the rapture of the poet or the lover we recall them as identified or confused with individual objects which "are like them, or partake in them." The same explanation is given of the practical skill of the general and the statesman, and even of the "right opinion" which guides the ordinary good man. Such opinion is neither knowledge nor ignorance: not knowledge, for general principles or ideas are not in it present to the mind as ideas, and therefore the particular cannot be distinctly subsumed under them; yet not ignorance, for the ideas are after all present, though wrapped up in the particulars or confused with them. Nay, in the *Theaetetus*, Plato endeavours to show that the pure particular without the universal, sensations without ideas, cannot enter into our consciousness at all, and that therefore the lowest point to which a conscious being can descend is "opinion," in which particular and universal, sensible and intelligible, are mingled together. In other words, no conscious being can apprehend the particular except through the universal, though that universal may be present only in consciousness and not to it. The task of philosophy is therefore only to make men "recollect themselves," i.e., to make self-conscious that universality of thought in which all rational beings "partake," or which, in the language of later philosophy, constitutes reason. The imperfection of Plato's view lay, however, in this, that, while he clearly recognized that the condition of all consciousness of the particular is the universal, he did not see with equal clearness that the universal has a meaning only in relation to the particular. And this tendency to separate universal from particular is naturally accompanied by a tendency to set the subjective against the objective, and to regard the world, not as the manifestation of reason, but as a dualistic world, in which reason is chained to a lower principle—a world which can at best only give a hint or suggestion to the mind to enable it to recollect itself and recover for itself its own treasures. Thus the false method of introspection, the "high priori road" of mysticism, was at least opened up by Plato, if he did not altogether forsake the narrower and harder way to the spiritual world through nature and experience.

The great step in advance taken by Aristotle was due to his seeing the danger of this tendency. Those, however, who have maintained that Aristotle is the great *a posteriori* philosopher,—as Plato is the great *a priori* philosopher,—have entirely mistaken the bearing of Aristotle's criticism of the Platonic theory. As strongly as Plato does Aristotle maintain that reason is *δυνάμει πάντα τὰ νοητά*, and that, therefore, the apprehension of truth by the mind is not a mere external communication of it to the mind, but rather is the mind coming to a consciousness of itself. As firmly as Plato does he declare that truth in its highest form is self-evidencing, i.e., that the principles of science, the laws of nature, when once they have been discovered, are seen to be true by their own light. His statements to this effect have been neglected or explained away, because they were supposed to be inconsistent with his still more frequently reiterated assertions that it is only from experience and by induction that the truth of things can be discovered. Writers of a later day,—who came to Aristotle with an idea of a fixed opposition between *a priori* and *a posteriori*, and who held that the only possible alternatives were either to divide knowledge between the

two or to explain away one of them,—could not comprehend that Aristotle might be in earnest both in asserting that knowledge is derived from experience and in asserting that it is an apprehension by reason of that which is identical with itself and needs no extraneous evidence. But Aristotle started with no such fixed opposition. On the contrary, any one who reads the last chapter of the *Posterior Analytics* will see that he had no difficulty in maintaining that knowledge begins in the apprehension of τὸ καθ' ἑαυτὸν in sense perception, and that it proceeds from many perceptions to experience, and from many experiences to science; while at the same time he declared that the principles of science have their evidence in themselves. And the meaning of this declaration is shown in the *De Anima*, where we find him speaking of knowledge as the realization in the "passive reason" of man of an "active reason" which is eternal and unchangeable, and which in the consciousness of itself includes the knowledge of all things. Of this realization, indeed, there is in man only the potentiality or capacity, but just because this is a pure or universal capacity, because, as Aristotle puts it, it has no quality or determination of its own to stand between it and its objects, it is a capacity in which the absolute reason can realize itself, a capacity of knowing all things. Here we have Plato's myth of reminiscence freed from the metaphor of memory, and reduced to scientific terms; for that myth simply meant that the evolution of knowledge is the development of the mind to the consciousness of itself, and of all that is potentially in it. Only, by the combination of this doctrine with the idea of the necessity of induction, Aristotle at the same time guards against the purely subjective interpretation to which in Plato it was liable. For the process by which the mind "comes to itself" is conceived as a process by which at the same time it rises from the particular to the universal, from the γνώριμα ἡμῖν to the γνώριμα ἀπλῶς, from the bare apprehension of the facts of experience to the knowledge of them through their principles or laws.

Yet Aristotle was as little able as Plato to work out fully a theory of the relation between the universal and the individual reason; and the cause of this failure was in both cases substantially the same. In Plato's philosophy, the ideal tended to divorce itself from the phenomenal world in such wise that the latter was regarded only as suggesting or partaking in the former, but not as entirely explicable by it. It was not merely that, to the mind of the individual in its progress, the veil was only gradually lifted from the rationality of the world, but that in the world there was an irrational element from which the mind could save itself only by flight into the region of abstraction. And, though Aristotle by his doctrine of the essential relation of ideas to experience, or of the development of the mind to the acquisition of knowledge of the world, seemed to be on the way to correct this error, yet he too shrinks from regarding the phenomenal world as in itself intelligible. To him also an irrational matter mingles with things, and is in them a source of contingency and imperfection. Chance is not merely the reflexion upon the world of our imperfect knowledge, but a fact of experience, and there is therefore a region in which our best science cannot rise above generality to universality. In this way there remains for Aristotle an absolute *a posteriori*, a reality which cannot be understood, and which we can scarcely conceive as existing at all for the divine intelligence. At this point the Aristotelian philosophy appears to stand between two alternatives, either that, in the sense of pantheism, the finite world and its contingency is an illusion, or that it is contingent only for the growing intelligence of man, which fully understands neither itself nor the world which is its object. Aristotle, however, does not choose either horn of

the dilemma, and leaves us therefore with an unresolved dualism between thought and its object; and this again necessarily involves a dualism between the active reason, which, as he asserts, realizes itself in man, and the passive reason which constitutes his nature as a finite being.

In the Middle Ages the Platonic and Aristotelian idea that the apprehension of objective truth is one with the evolution of the mind to self-consciousness seemed to be entirely lost. Knowledge of the finite world was regarded as indifferent, and knowledge of the infinite was conceived to be something given on authority, and in reference to which the mind was confined to an attitude of passive reception or implicit faith. No greater slavery of the spirit can be conceived than that in which even the truths of religion and morality—the truths that regard the inmost life of the spirit itself—were taken as a lesson to be learned by rote from the lips of a teacher. Yet the consciousness that such truth, if it was to be received by the mind, still more if it was to transform the mind, could not be entirely foreign to it, found a voice in the scholastic philosophy. And the compromise or truce between faith and reason expressed in the saying of Anselm *credo ut intelligam*,—according to which reason was to confine itself to the analysis and demonstration of the data received in implicit faith from the church,—prepared the way for the recognition that the two are not essentially at variance. The mind that proceeds from *vereneratio* to *delectatio*, from awe and submission to the doctrine to enjoyment and appreciation of it, must already in its awe and submission have the beginnings of an intelligent appreciation. Anselm's saying might be understood simply as meaning that we must have spiritual experience ere we can understand the things of the spirit. And in this sense it was adopted by the Reformers to express an idea almost the opposite of that with which the scholastics had associated it,—the idea that the direct apprehension of spiritual truth as entering into the inner life of the subject, as identified with his very consciousness of self, is the basis of all knowledge of it. In the Protestant church of the period after the Reformation, we find a growing tendency to insist on the subjectivity of religion, in the same exclusive and one-sided way in which the mediæval church had insisted on its objectivity. In some extreme representatives of Protestantism this went so far as to lead to a disregard, almost to a rejection, of all objective doctrine, and a reduction of theology to an account of the religious consciousness. On the other hand, while religion was thus made subjective, science claimed to be purely objective, and the followers of Bacon seemed to adopt towards nature the same attitude of passive receptivity which the mediæval Christian was taught to hold towards the church. While man was to learn everything from himself in religion, he was to learn nothing from himself in science. His aim must be to exclude subjective *idola*, in other words, to accept the facts as they were given, and keep himself out of the way. The inevitable result of this difference of view as to the nature of knowledge in these two different regions was, however, on the one hand a withdrawal of religion from all connexion with finite interests, and, especially from the attempt to connect religious principles with the knowledge of the finite world, and, on the other hand, an increasing tendency in those who represented finite science to regard religion as something merely subjective and even individual, as a feeling which could not be translated into thought or made the basis of any knowledge of the objective world.

The opposite principles of certitude which were thus set up for religious truth and truth of science need only to be brought together and contrasted to betray that they rest upon opposite abstractions, neither of which expresses

the complete nature of truth or knowledge. On the one hand the truths of religion were maintained just because they were not, or were not merely, objective, but were capable of being tested by inner experience, and identified with the self-consciousness of the individual. On the other hand the truths of science were maintained because they were not, or were not merely, subjective, but were capable of being verified in objective experience. It was rightly seen on the one side that mere subjective feelings or opinions have no validity for any one but the subject of them, and on the other side that what is merely objective or externally given can have permanent value and interest for the intelligence only as it ceases to be mere isolated and unrelated fact—nay, that, even when science has discovered law and order in nature, it still wants the highest value and interest so long as that law and order are not seen as standing in essential relation to the intelligence itself. The idea of truth or knowledge as that which is at once objective and subjective, as the unity of things with the mind that knows them, enables us to understand the condemnation which the religious mind passed upon a merely external dogma, and even its lack of interest in a science which presented itself as an account of merely objective or external facts. And it enables us also to understand the way in which scientific men insisted upon objective fact as the basis of all knowledge, and the disrespect which they felt for a religion which seemed to admit that it had no such support. What was wanted to clear up the confusion on both sides is the growth of the perception among scientific men that the objectivity which they are seeking cannot be mere objectivity (which would be unmeaning), but an objectivity that stands in essential relation to the intelligence, and, on the other hand, the growth of the perception among religious men that the subjectivity of religion only means that God, who is the objective principle by whom things are, and are known, is spiritual, and can therefore be revealed to the spirit. When these two corrections have been made, it must become obvious that the religious consciousness is not the consciousness of another object than that which is present in finite experience and science, but simply a higher way of knowing the same object. And in this it is also involved that the two ideas of *a priori* and *a posteriori*, of that which is evolved from within and that which is given from without, are not essentially opposed to each other, but that the *a posteriori* is simply the first form of a consciousness which in its ultimate development must become *a priori*.

In that philosophy of compromise which was initiated by Descartes, one part of knowledge was regarded as innate, or developed from within, and another part as empirical, or imparted from without. In the second period of the history of modern philosophy this compromise was broken, and the names of Locke and Leibnitz—though with some hesitation on both sides—represent respectively the theories that all knowledge is *a posteriori* and that all knowledge is *a priori*. The compromise seemed to be renewed with Kant, but the form in which it was renewed pointed, as has been already shown, to something more than a compromise, for his doctrine was that the *a posteriori* element, the facts, exist for us only under *a priori* conditions, or, in other words, that what is usually called *a posteriori* is in part *a priori*. The criticism of this view need not be repeated. It is sufficient here to say that if, as Kant shows, the elements are inseparable or organically united, it is impossible to allege that so much belongs to the one and so much to the other. Furthermore, the consciousness of an essential difference in the elements of knowledge is possible only so far as that difference is transcended by the unity of knowledge. We can distinguish the *a priori* from the *a posteriori* only on condition that we can transcend

the distinction, and this means that the distinction itself is not absolute, but that there is a point of view from which the *a posteriori* may be regarded as *a priori*, and that which is given from without to the spirit may be referred to its own self-determined development.

Now it is just here that we come upon the turning-point of the philosophical controversy, in the form which it has taken in modern times. The problem may be expressed thus—In what sense can we apply the idea of development to the human spirit? Are we to treat that development as merely a determination from without, or as an evolution from within, or as partly the one and partly the other? In a sense all writers of the present day would admit that this last is the case. For, on the one hand, even the Darwinian theory accounts for development by aid of what we may call the *a priori* tendency of the individual to maintain itself in the struggle for existence, though it supposes that the condition or medium in which the individual is placed determines the direction in which that development proceeds. And, on the other hand, no one now would adopt the Leibnizian theory that the individual is a monad, whose self-development is entirely conditioned by itself in such a sense that all the relations which it has to other existences are merely apparent, and that the coincidence of its life with the life of the world is the result of a pre-established harmony. On both sides, therefore, the idea of self-determination would be admitted, though the tendency of the Darwinians would be to regard this self-determination as something merely formal; and on both sides it would also be admitted that the self-determination does not exclude a determination from without, though extreme opponents of Darwin might be inclined to reduce this determination to a mere stimulus or external condition of the development of the nature of the subject to which the stimulus is applied. The question, however, remains whether, after all, this opposition of without and within is an absolute one, or whether there is any point of view from which it may be transcended. To Aristotle it seemed possible to answer this question in the affirmative, because he conceived that the reason of man is a pure or universal *dynamis*, the evolution of which to complete self-consciousness is one with the process whereby the objective world comes to be known. Yet, as Aristotle admitted the existence in the world of a material principle which was essentially different from the ideal principle of reason, he was obliged to limit his statement as to the possible unity of the subjective and the objective consciousness, and to say merely that "in things without matter the knower is identical with the known." But this would immediately lead to the conclusion that the pure development of reason must be secured by abstraction from all finite and material objects, rather than by a thorough comprehension of them. The freedom of the spirit, on this theory, must be a negative and not a positive freedom, a freedom won, not by overcoming the world, but by withdrawing ourselves from its influence. It remained, therefore, for modern philosophy to work out the Aristotelian idea that the rational being as such, in spite of its necessary relation to and dependence on an external world, is never in an absolute sense externally determined. And, as we have already seen, the Kantian philosophy brought this problem within the reach of solution, in so far as it showed, first, that objective existence can have no meaning except existence for a thinking self, and, secondly, that existence for a thinking self means existence the consciousness of which is "capable of being combined with the consciousness of self." Add further to these propositions what was shown by Kant's successors, that that only can be combined with the consciousness of self which is essentially related to it, and we arrive at an idealistic theory of the world, which enables

us at once to understand the relative value of the distinction between self-determination and determination from without, and at the same time to see that its value is only relative. If it be true that nothing exists which is not a possible object of consciousness, and again that there is no possible object of consciousness which is not essentially related to self-consciousness, then the phenomena of the external world, which at first present themselves under the aspect of contingent facts, must be capable of being ultimately recognized as the manifestation of reason; and the history of the conscious being in his relations with that world is not a struggle between two independent and unrelated forces, but the evolution by antagonism of one spiritual principle. It is, on this view, the same life which within us is striving for development, and which without us conditions that development. And the reason why the two terms, the self and the not-self, thus appear to be independent of each other, or to be brought together only as they externally act or react upon each other, lies in this, that the object is imperfectly known, and the subject is imperfectly self-conscious. This, however, does not make it less true that in self-consciousness is to be found the principle in reference to which the whole process may be explained, and therefore that the self-conscious subject, as such, lives a life which belongs to him, not merely as one object among others, but as having in himself the principle from which the life and being of all proceeds.

From this point of view, as has been already indicated, the relative value of a theory of human development, such as that which might be based on the ideas of Darwin, would not be denied. The conscious being may be regarded simply as an externally determined object, and the incorrectness of this assumption will not entirely destroy the value of the results attained, especially if, as is often the case with those who seek to construct a natural science of man, the assumption itself is not very strictly adhered to, but corrected by the tacit admission of other conceptions somewhat inconsistent with it. But, at the same time, it would require to be pointed out that such a science is necessarily abstract and imperfect, as it omits from its view the central fact in the life of the object of which it treats. It can do nothing to account for man's consciousness, or his capacity of becoming conscious, of the influences by which he is supposed to be determined; or, to put it from the other side, it takes for granted that the objects that influence man are intelligible objects, "capable of being combined with the consciousness of self," without seeing how much is involved in this assumption. Now it is evident that the consciousness of an influence cannot be explained by the influence itself, nor even by that taken together with the nature of the sensitive beings subjected to it. It is evident also that an influence mediated by consciousness is not, strictly speaking, an external influence, but that it is already transformed, and in process of being further transformed, by the development of the self to which it is present. For the dawn of consciousness, in which the external object first comes into existence for us as opposed to the self, is at the same time the beginning of the process by which its externality is negated or overcome. Self-consciousness is that which makes us individuals in a sense in which individuality can be predicated of none but a self-conscious being. For, in determining himself as a self, the individual at the same time excludes from himself every other thing and being, and determines them as external objects. He emancipates himself from the world at the same time that he repels the world from himself. Yet this movement of thought, by which his individuality is constituted, is also that by which he is lifted above mere individuality, for, in becoming conscious of self, and not-self in their opposition and relation, he ceases to

be simply identified with the one to the exclusion of the other. His finite individuality is regarded by him from a universal point of view, in which it has no less and no more importance than any other individuality, or in which its greater or less importance is determined only by its place in the whole. On this universality of consciousness rests the possibility of science and of morality. For all science is just a contemplation of the world *in ordine ad universum* and not *in ordine ad individuum*; and all morality is just action with a view to an interest which belongs to the agent, not as this individual, but as a member of a greater whole, and ultimately of the absolute whole in which all men and all things are included.

In this nature of the conscious subject lies also the possibility of metaphysic in the sense of Aristotle, as that science which goes back to a *πρῶτον φάσει*, a beginning which is prior to the existence in consciousness of the individual self, and onward to an end in which the divisions of the finite consciousness are transcended,—as including, in short, ontology, or metaphysic in the narrower sense, on the one side, and theology, or the philosophy of religion, on the other. In truth, these two extremes of science are necessarily bound together: we can only go back to the beginning if we can go on to the end; we can only recover the first unity if we can anticipate the last. Or, to free the subject more definitely from the associations of time, we cannot apprehend the unity which is involved or presupposed in all the differences of our conscious life except in so far as we can look at our individual existence from the point of view of the whole to which it belongs. This will become evident if we consider the nature of the limits which have to be transcended by such a science. The individual conscious subject, as he finds himself at first, is but one being in a world that stretches out, apparently without limits, on every side of him. Of the things by which he is immediately surrounded he sees but a small part, and the influences which he receives from them are, as he knows, like the wave that breaks upon a shore from an unknown ocean, only the last partial expression of impulses that come from regions beyond his ken. Again, he finds himself as one in a changing series of beings, of which he knows only the last preceding terms, and he is aware that in a few years he, as one of this-series, will cease to be. He is thus to himself a definitely limited being, and though his knowledge of himself and his world may be gradually widened so as to reach some little way back into the past, and anticipate a little of the future, or may go outwards in space to embrace a widening circle of existences around him, yet he always stops at a limit, of which he is conscious that it is no absolute limit, but simply an arbitrary halting-place where vision grows indistinct and imperfect. When he reflects upon himself from this point of view, he is forced to regard himself as but a fragment, and a fragment of an unknown whole, by which his whole being is determined to be what it is. His highest knowledge seems to be but a consciousness of his ignorance, his highest freedom a determination by motives the ultimate meaning of which is hid from him.

So far there seems to be no room for any metaphysical knowledge, any knowledge of ourselves and our world which is other than relative and *in ordine ad individuum*. But further reflexion shows that in this very consciousness of limit there is implied a consciousness of that which is beyond limit. While we proceed from part to part, beginning with ourselves and our immediate surroundings, and following out lines of connexion that lose themselves in the distance, we are guided by a consciousness of the whole as a unity through which the parts are determined. Nay, it is just the presence of this consciousness that makes us capable of what seems the piecework of our knowledge, in which,

by the aid of the principle of causality, we connect particular with particular, and so gradually extend the sphere of light into the encompassing darkness. For that principle simply means that the limited external object does not sufficiently explain to us its own existence, and that therefore we are forced to explain it by a reference to something beyond it. It means, in other words, that we cannot rest in that which is not a self-bounded, self-determined whole. The application of the category of external determination has therefore an essential reference to the higher category of self-determination. The mere endlessness of space and time has no meaning except in opposition, yet in relation, to the true infinity of which we find the type in self-conscious thought. Or, to put it in the Kantian form in which it is already familiar to us, the consciousness of the objective world in space and time stands in essential relation to the unity of self-consciousness. And if when we regard the former exclusively we are forced to view ourselves as insignificant and short-sighted finite beings in an infinite universe, when we regard the latter we are enabled to see that in all this universe there is revealed only that spiritual principle which we find also in ourselves. In this way a new light is thrown on our first consciousness of ignorance. The strivings of our reason after knowledge can no longer be regarded as strivings after an unknown goal, but rather after a goal which it has prescribed for itself. The narrow limits of our individual life are not removed, but they cease to be for us the limits of a narrow circle of definition within a formless infinite. They become the limits of a sphere within a sphere, a sphere which is defined by the idea of knowledge or self-consciousness itself, and in which therefore, however we may wander, we are everywhere at home. In religious language, the sphere is not a mere universe, but God, who is without us only as He is within us, so that "by the God within we can understand the God without."

Again, as this consciousness takes man beyond his immediate existence, and enables him to determine it in relation to an absolute unity of all things in God, so it enables him to go back to a unity which is behind or prior to that existence. For, if the individual can look at himself as he looks at others, and at others as he looks at himself, *i.e.*, from a point of view which is unaffected by his individuality, and in which that individuality is for him only what it is for impartial reason, he can have nothing in him which binds his consciousness to his individuality as mere individuality; as therefore he can go beyond himself to apprehend the whole in which his individuality has a place, there is nothing to prevent him from going back upon himself, and upon the conditions which are prior to his own individual being. He is not tied to his immediate life, and can go below it just as he can rise above it.

"O God, I think Thy thoughts after Thee," said Kepler. In reading the "thoughts" written in the planetary system, Kepler was discovering the meaning of that which is simpler and more elementary than the existence of man, as a cycle of mechanical relations are simpler and more elementary than self-consciousness. Yet it was a true feeling that led him to connect this descent into the mechanical world with God. For it is only in virtue of the same faculty which enables us to rise to the absolute life which includes and subordinates our own that we can so free us from the image of our own conscious life as to apprehend and fix in thought the simpler relations of purely physical existence. But the same faculty of going back upon ourselves has a still deeper manifestation. Not only can we abstract from ourselves so as to understand the inorganic world, we can also abstract from ourselves so as to understand the conditions which are prior

to the thought, and therefore to the existence, of any objective external world at all, the universal conditions of the knowable and therefore also of reality. In doing so, to use Hegel's metaphor, which is but an extension of Kepler's, we are "thinking what God thought and was before the creation of the world," *i.e.*, we are thinking the spiritual unity presupposed in all knowledge, and therefore in all objects of knowledge—the consciousness in relation to which everything is, and is known.

3. *The Relation of Logic to Metaphysic.*—The ordinary view of logic is based on two presuppositions which tend to separate it almost entirely from metaphysic: it is based on the presupposition of an opposition, or at least a merely external relation, between thought and its object, and again of an opposition, or merely external relation, between the form or method and the content or matter of thought. The intelligence is regarded as dealing with an object which is given to it externally, and to which, therefore, it can be true only if it leaves it unchanged and introduces into it nothing of its own. Truth, to use a well-known definition, is the agreement of our conceptions with their objects, and in bringing about this agreement all the concessions must be on the side of thought. Conformably to this view, the processes of thought must be purely analytic; *i.e.*, thought may break up the given idea of the object into its constituent elements, and again out of these elements it may recompose the idea in its unity, but it can add nothing and take nothing away. It is like an instrument which alternately dissects a solid mass into smaller parts and again mechanically presses them together, but which never penetrates and dissolves the hard matter, still less fuses it into a new form by bringing it into contact with new chemical elements.

This conception, like much of the philosophy of which it is a specimen, is a kind of exaggerated caricature of one aspect of the philosophy of Aristotle. Aristotle is the great analytic philosopher. He first laid down boundaries in that continuous domain of science which Plato had first surveyed. Not that he ever completely lost sight of the unity or continuity of the different sciences which he thus distinguished. His unrivalled speculative genius is shown nowhere more clearly than in those not unfrequent utterances of speculative insight into the unity of things different, by which, as at a stroke, he makes his own landmarks and all landmarks disappear. Yet such utterances generally stand by themselves, and do not alter the general analytic spirit of his philosophy. They are not so developed as to show distinctly the merely relative character of the divisions and distinctions which are set up, or the limits of the sphere within which they hold good. Hence it was easy for minds which possessed something of Aristotle's keenness of understanding without his speculative depth to neglect such expressions, or to explain them away. And this process of degradation was the more rapid as the philosophy of Aristotle soon ceased to be studied in his own writings, and became a traditionary possession of the schools. In this way we may partly explain how logic came to be regarded by mediæval philosophy as a form of thought which could be altogether separated from the matter, and by the application of which that matter could be in no way affected or changed. But for such a view, indeed, it is difficult to conceive how the schoolmen could have ventured to apply any logical processes at all to the sacred matter of dogma. The idea of externally adding anything to the faith once delivered to the saints was excluded by the principle of authority; and the idea of developing out of that faith anything that was not immediately contained in it had not yet presented itself to any one. Hence the business of thought seemed to be purely formal and analytic, and it was only on the plea of its being such that

its activity could be tolerated at all. Nor was this view of logic at once changed by the revolt against scholasticism. The first philosophical exponents of the modern scientific movement, while they rejected the matter of dogma as fictitious, or at least as transcending the sphere of positive knowledge, and while they substituted in its place, as the object of investigation, the facts of experience, did not realize any more than the schoolmen that the form and method of knowledge could be other than analytic of given matter. Bacon, their protagonist, was above all solicitous to guard against any subjective *anticipatio naturæ*; nor did he see that the questions which, in his theory of forms, he proposed that science should ask of nature themselves involved any preconceived theory regarding it. Conscious, as every true scientific man must be, that the study of nature involves a constant self-abnegation, a patient self-distrustful course of experiment and observation, he and his followers did not realize the presuppositions that make the inquiry possible, and by which it must be guided. Still less did they recognize that the separation between the mind and its object which they took for granted can only be a relative division, *i.e.*, a division on the basis of a unity, and that therefore the self-abnegation of the mind in its investigation of facts cannot be an absolute self-abnegation, but is only the first step on the way to the discovery that the facts are intelligible, and so essentially related to the intelligence. Hence to them logic still seemed a mere analytic process, the end and aim of which was understood to be that a world, existing in itself out of relation to thought, should be reproduced in a more or less imperfect image in thought. And, when it came to be suspected by a less naive philosophy of experience that, after all, certain presuppositions, not given in experience itself, were involved in the scientific interpretation of it, various expedients were devised to reduce these presuppositions in an indirect way to empirical truths,—expedients of which Mill's attempt to base the law of causality upon an *inductio per enumerationem simplicem* may be taken as the type.

When we go back to Aristotle,—who was the "founder of logic" in the sense that he was the first who treated logical method as a separate branch of science,—we find that his division of logic from metaphysic is by no means so definite and complete as it was made by some of his successors. The verification of the highest principle of thought, the law of contradiction, is treated by him as the business of metaphysic. And, though he separates the idea of truth from the idea of reality, and regards the former as involving a relation of thought to a reality which is determined in itself independent of that relation, yet he does not regard this independence as by any means absolute. Truth is defined by him as a connexion or distinction of ideas which *corresponds* to a union or separation of things, but does not necessarily so correspond. This definition, however, holds good only in so far as things are not scientifically known, or in so far as things not essentially related are brought together *κατὰ συμβεβηκός*. Where necessity comes in, and is apprehended by reason, the case is different. For in that case we have not merely an external synthesis, but an essential identity, *i.e.*, a unity of elements which can neither be, nor be known, apart from each other. In relation to the principles of science, therefore, Aristotle holds that error, *i.e.*, a connexion of ideas not corresponding to a connexion of things, is impossible, and that the only alternatives are knowledge and ignorance. Either we possess the idea or we do not possess it; as Aristotle otherwise expresses it, in thought we are either in contact with the things or not in contact with them; there is no third possibility. The meaning of Aristotle becomes clearer when we remember that, according to his

view, the intelligence, in apprehending the indivisible unity of elements in the object, is at the same time apprehending the unity of the object with itself. The mind cannot be deceived in regard to that which forms a part of its consciousness of itself. In freeing the essential conception of the object from the contingency of matter, science has freed the object from that which made it foreign to intelligence, and the relation of thought to things ceases to be one of correspondence, and becomes one of identity.

The legitimate inference from this view of the relation of the intelligence to the intelligible world would seem to be that the partial separation of thought from its object and its imperfect correspondence with it is characteristic of our first empirical consciousness of things, and of the progress from that consciousness to science, but that in completed science the division ceases. The *esse* of things is not their *percipi*, but their *intelligi*. But, if this be taken as the truth, then it can no longer be supposed that the process by which scientific knowledge is attained consists simply in an analysis of the object as it is given in immediate perception. On the contrary, it must be held that, if our thought has to submit itself to the object, and to be brought into conformity with it, by a process of induction, it is equally true that in this process the object also must be changed, that it may be brought into conformity with the principle of thought. The genesis of science, according to this view, is not merely an analysis of given facts, but a process of vital transformation by which consciousness on the one side and the object on the other are brought into unity with each other. The idea, indeed, of an empty process, a process in which the activity of the mind is merely formal, is one which will not stand the slightest examination. A mind without categories, if such a thing were conceivable, would have no questions to ask in relation to the object presented to it, and could therefore get no answers. Those who make a pretence of approaching a subject in an absolutely receptive attitude, and without any presuppositions, only show that they are unconscious of the categories by which their thought is ruled; and they will be most slavishly guided by these categories just because they are unconscious of them. The schoolmen, when they applied their logical principles to the matter of Christian dogma, did not recognize that they were doing more than analysing and bringing out clearly the meaning of that dogma. But the effect of their work was to turn the system of divinity into a collection of insoluble puzzles; for the doctrine was a doctrine of reconciliation between divine and human, infinite and finite, universal and particular, and the principle of their method was to treat all these oppositions as absolute. In like manner it might be shown that the analysis of social phenomena which was made in the last century was inadequate and superficial, just because of the latent assumption of individualism on which it proceeded, and that the greater success of writers like Comte and Spencer does not arise merely or mainly from their being more careful observers of the phenomena of social life, but in great part from the fact that, rather by the unconscious movement of opinion than by any distinct metaphysic, their minds have become possessed by more adequate categories.

The idea that the process of thought is merely formal, or analytic of given matter, is, however, an error that has a truth underlying it. This is the truth expressed by Aristotle in his much misunderstood comparison of the intelligence of man to a *tabula rasa*, upon which nothing at first is written, and again in his assertion—already quoted—that the mind is a pure *δύναμις*, without any distinguishing quality of its own which could prevent it from apprehending the real nature of other things. In

other words, self-conscious reason is not a special thing in the world, but the principle through which all things are, and are understood; and hence, as regards the distinction of things from each other, it is in the first instance undetermined and indifferent, and therefore open to be determined in one way or another, according to the object to which it is directed. But this simply means that the conscious subject, as such, is not bound to his own individuality, but can regard things, nay, in a sense, must regard them, from a point of view which is independent of it. This is what makes possible the self-restraint and self-abnegation prescribed to the scientific man, whose whole duty, as it is often said, is to keep himself out of the way and let the objects speak, to lay aside all subjective *idola* and prejudices that stand between him and the reality of things. This at first sight may seem to be equivalent to the assertion that the mind ought to be in a state of simple passivity or receptivity towards objects. What is really meant, however, is not that the intelligence should go out of itself, or cease to be itself, that it may know its object, but simply that it should show itself in its universality, or freedom from the limits of the individual nature. The self-abnegation of science is an endeavour, so to speak, to see the object with its own eyes, but this it can do only in so far as the consciousness for which the object is is that consciousness in relation to which alone all objects are, and are understood. Or, to put it in another form, the conscious self in its scientific self-abnegation does not give itself up to another, and become purely passive; it only gives up all activity which is not the activity of that universal thought for which and through which all things are. Hence, when it has so abnegated itself, its most intense constructive activity is just beginning, though, just so far as the self-abnegation has been real, that constructive activity has become one with the self-revelation of the object. As, however, it is only through the constructive activity of thought that there exists for us any object at all, so it is only through its continued activity that the conception of the object is changed, till it is completely revealed and known. And this activity involves a continuous synthesis, by which an ever wider range of facts is brought together in an ever more definite unity, until the mind has, if we may use the expression, exhausted its store of categories upon the world, and until the world has completely revealed itself in its unity with itself and with the mind.

To combine these two ideas—on the one hand that science begins in a self-abnegation by which the mind renounces all subjective prejudices, and thereby attains a purely objective attitude, and on the other hand that this purely objective attitude is not a mere attitude of reception, but one in which the mind is continually transforming the object by its own categories,—to see that the universality of the mind in knowing is not mere emptiness, and that its activity is synthetic just when it is most free from all presuppositions extraneous to the nature of its object,—is one of the greatest difficulties of the student of metaphysic. Universality at first looks so like emptiness, and a universal activity so like a merely formal activity, that it is no wonder that the one should be mistaken for the other. But if we make such a confusion, we may soon be forced to choose between a sensationalism that makes knowledge impossible and a mysticism which makes it empty. The pure identity of thought with itself which is involved in the process of analysis is put on the one side, and the manifold matter of experience which is the object of thought on the other, and between these opposites no mediation is possible. If we take our stand upon the latter, we are forced to reject all mental synthesis as invalid, because it involves a subjective addition to the