

In wrought iron the German smiths, especially during the 15th century, greatly excelled. Almost peculiar to Germany is the use of wrought iron for grave-crosses and sepulchral monuments, of which the Nuremberg and other cemeteries contain fine examples. Many elaborate well-canopies were made in wrought iron, and gave full play to



FIG. 8.—Part of Henry VII.'s Bronze Screen.

the fancy and invention of the smith. The celebrated 15th-century example over the well at Antwerp, attributed to Quintin Massys, is the finest of these.

France.—From the time of the Romans the city of Limoges has been celebrated for all sorts of metal-work, and especially for brass enriched with enamel. In the 13th and 14th centuries many life-size sepulchral effigies were made of beaten copper or bronze, and ornamented by various-coloured "champlevé" enamels. The beauty of these effigies led to their being imported into England;

most are now destroyed, but a fine specimen still exists at Westminster on the tomb of William de Valence (1296). In ornamental iron-work for doors the French smiths were pre-eminent for the richness of design and skilful treatment of their metal. No examples probably surpass those on the west doors of Notre Dame in Paris—now unhappily much falsified by restoration. The crockets and finials on the fleches of Amiens and Rheims are beautiful specimens of a highly ornamental treatment of cast lead, for which France was especially celebrated. In most respects, however, the development of the various kinds of metal-working went through much the same stages as in England.

Persia and Damascus.—The metal-workers of the East, especially in brass and steel, were renowned for their skill



FIG. 9.—Brass Vase, pierced and gilt; 17th century Persian work.

even in the time of Theophilus, the monkish writer on the subject in the 13th century. But it was during the reign of Shah Abbas I. (d. 1628) that the greatest amount of skill both in design and execution was reached by the Persian workmen. Delicate pierced vessels of gilt brass, enriched by tooling and inlay of gold and silver, were among the chief specialties of the Persians (see fig. 9).

A process called by Europeans "damascening" (from Damascus, the chief seat of the export) was used to produce very delicate and rich surface ornament. A pattern was incised with a graver in iron or steel, and then gold wire was beaten into the sunk lines, the whole surface being then smoothed and polished. In the time of Cellini this process was copied in Italy, and largely used, especially for the decoration of weapons and armour. The repoussé process both for brass and silver was much used by Oriental workers, and even now fine works of this class are produced in the East, old designs still being adhered to.

Recent Metal-Work.—In modern Europe generally the arts of metal-working both as regards design and technical skill are not in a flourishing condition. The great bronze lions of the Nelson monument in London are a sad example of the present low state of the founder's art. Coarse sand-casting in England now takes the place of the delicate "cire perdue" process.

Some attempts have lately been made in Germany to revive the art of good wrought-iron work. The Prussian gates, bought at a high price for the South Kensington Museum, are large and pretentious, but unfortunately are only of value as a warning to show what wrought iron ought not to be. Some English recent specimens of hammered work are more hopeful, and show that one or two smiths are working in the right direction.

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METAMORPHOSIS. This term has been employed in several distinct senses in biology. During the early part of the century it was constantly used to include the current morphological conceptions, as, for instance, of the parts of a flower as modified or "metamorphosed" leaves, or of the segments of a skull as modified vertebrae. It is still frequently employed to denote that progressive change from the general to the special undergone by all developing tissues and organs (see BIOLOGY, EMBRYOLOGY), but in this sense is conveniently superseded by the term "differentiation." In the process of animal development, two types are broadly distinguishable,—a fetal type, in which development takes place wholly or in greater part either within the egg or within the body of the parent, and a larval type, in which the young are born in a condition more or less differing from that of the adult, while the adult stage again is reached in one of two ways, either by a process of gradual change, or by a succession of more or less rapid and striking transformations, to which the term metamorphosis is now usually restricted. Metamorphosis is generally regarded as having been brought about by the action of natural selection, partly in curtailing and reducing the phases of development (an obvious advantage in economy of both structural and functional change), and partly also in favouring the acquirement of such secondary characters as are advantageous in the struggle for existence. Freshwater and terrestrial animals develop without metamorphosis much more frequently than marine members of the same group, a circumstance which has been variously explained. For details of metamorphoses see the articles on the various groups of animals; see also Balfour's *Comparative Embryology*, 1880-81.

METAPHYSIC

THE term metaphysic, originally intended to mark the place of a particular treatise in the collection of Aristotle's works, has, mainly owing to a misunderstanding, survived several other titles,—such as "First Philosophy," "Ontology," and "Theology," which Aristotle himself used or suggested. Neo-Platonic mystics interpreted it as signifying that which is not merely "after" but "beyond" physics, and found in it a fit designation for a science which, as they held, could not be attained except by one who had turned his back upon the natural world. And writers of a different tendency in a later time gladly accepted it as a convenient nickname for theories which they regarded as having no basis in experience, in the same spirit in which the great German minister Stein used the analogous title of "metapolitics" for airy and unpractical schemes of social reform. A brief indication of the contents of Aristotle's treatise may enable us to give a general definition of the science which was first distinctly constituted by it, and to determine in what sense the subjects which that science has to consider are beyond nature and experience.

For Aristotle, metaphysic is the science which has to do with Being as such, Being in general, as distinguished from the special sciences which deal with special forms of being. There are certain questions which, in Aristotle's view, we have a right to ask in regard to everything that

presents itself as real. We may ask what is its ideal nature or definition, and what are the conditions of its realization; we may ask by what or whom it was produced, and for what end; we may ask, in other words, for the formal and the material, for the efficient and the final causes of everything that is. These different questions point to different elements in our notion of Being, elements which may be considered in their general relations apart from any particular case of their union. These, therefore, the first philosophy must investigate. But, further, this science of being cannot be entirely separated from the science of knowing, but must determine at least its most general principles. For the science that deals with what is most universal in being is, for that very reason, dealing with the objects which are most nearly akin to the intelligence. These, indeed, are not the objects which are first presented to our minds; we begin with the particular, not the universal, with a *πρῶτον ἡμῖν* which is not *πρῶτον φύσει*; but science reaches its true form only when the order of thought is made one with the order of nature, and the particular is known through the universal. Yet this conversion or revolution of the intellectual point of view is not to be regarded as an absolute change from error to truth: for Aristotle holds that *nilhil est in intellectu quod non prius in sensu*, in the meaning that in sense perception there is already the working of that discriminative intelli-

gence¹ which, beginning in sense perception, with the distinction of particular from particular, can rest only when it has apprehended things in their universal forms or definitions. Looking at knowledge *formally*, the highest law of thought, the law of contradiction (or, as we might call it, to indicate Aristotle's meaning more exactly, the law of definition or distinction), is already implied in the first act of perception by which one thing is distinguished from another. Looking at it *materially*, the reason of man is to be conceived as potentially all that is knowable; *i.e.*, objects are so related to it that for it to know them in their essential definitions is only to know itself. The aim of science, in this view, is to break through the husk of matter, and to apprehend things in their forms, in which they are one with the mind that knows them. Hence also it follows that in rising to the most universal science, the science of Being in general, the mind is not leaving the region of immediate experience, in which it is at home, for a far-off region of abstractions. Rather it is returning to itself, apprehending that which is most closely related to itself, and which therefore, though it is late in being made the direct object of investigation, is yet presupposed in all that is, and is known.²

Metaphysic, then, is the science which deals with the principles which are presupposed in all being and knowing, though they are brought to light only by philosophy. Another trait completes the Aristotelian account of it. It is theology, or the science of God. Now God is *vóvovs νοήσεως*, pure self-consciousness, the absolute thought which is one with its object, and He is therefore the first cause of all existence. For, while the world of nature is a world of motion and change, in which form is realized in matter, this process of the finite can be explained only by referring it back to an unmoved mover, in whom there is no distinction of matter and form, and who is, therefore, in Aristotle's view, to be conceived as pure form, the purely ideal or theoretic activity of a consciousness whose object is itself. Such a conception, however, while it secures the independence and absoluteness of the unmoved mover, by removing him from all relation to what is other than himself, seems to make his connexion with the world inexplicable. We can on this theory refer the world to God, but not God to the world. Hence Aristotle seems sometimes to say that God is the first mover only as He is the last end after which all creation strives, and this leads him to attribute to nature a desire or will which is directed towards the good as its object or end.

Aristotle then brings together in his metaphysic three elements which are often separated from each other, and the connexion of which is far from being at once obvious. It is to him the science of the first principles of being. It is also the science of the first principles of knowing. Lastly, it is the science of God, as the beginning and end of all things, the absolute unity of being and thought, in which all the differences of finite thought and existence are either excluded or overcome.

To some this description of the contents of Aristotle's treatise, and especially the last part of it, may seem to be a confirmation of all the worst charges brought against metaphysic. For at both extremes this supposed science seems to deal with that which is beyond experience, and which therefore cannot be verified by it. It takes us back to a beginning which is prior to the existence as well as to the consciousness of finite objects in time and space, and on to an end to which no scientific prophecy based upon our consciousness of such objects can reach. In the

¹ Δύναμις κριτική, *Anal. Post.*, ii. 99b.

² What is said here as to the intelligence is partly taken from the *De Anima*. The necessary qualifications of the above general statement of Aristotle's views will be given subsequently.

former aspect of it, it has to do with notions so abstract and general that it seems as if they could not be fixed or tested by reference to any experience, but must necessarily be the playthings of dialectical sophistry. In the latter aspect of it, it entangles us in questions as to the final cause and ultimate meaning of things, questions involving so comprehensive a view of the infinite universe in which we are insignificant parts that it seems as if any attempt to answer them must be for us vain and presumptuous. On both sides, therefore, metaphysic appears to be an attempt to occupy regions which are beyond the habitable space of the intelligible world—to deal with ideas which are either so vague and abstract that they cannot be fastened to any definite meaning, or so complex and far-reaching that they can never by any possibility be verified. For beings like men, fixed within these narrow limits of space and time, the true course, it would seem, is to "cultivate their gardens," asking neither whence they come nor whither they go, or asking it only within the possible limits of history and scientific prophecy. To go back to the beginning or on to the end is beyond them, even in a temporal, still more in a metaphysical, sense. That which is *πρῶτον φύσει* escapes us even more absolutely than the prehistorical and pregeological records of man and his world. That which is *ὑστατον φύσει* escapes us even more absolutely than the far-off future type of civilization, which social science vainly endeavours to anticipate. Our state is best pictured by that early Anglican philosopher who compared it to a bird flying through a lighted room "between the night and the night." The true aim of philosophy is, therefore, it would seem, to direct our thoughts to the careful examination and utilization of the narrow space allotted to us by an inscrutable power, and with scientific self-restraint to refrain from all speculation either on first or on final causes.

The main questions as to the possibility and the nature of metaphysic, according to Aristotle's conception of it, may be summed up under two heads. We may ask whether we can in any sense reach that which is beyond experience, and, if so, whether this "beyond" is a first or a last principle, a pre-condition or a final cause of nature and experience, or both. The former question branches out into two, according as we look at metaphysic from the objective or the subjective side, or, to express the matter more accurately, according as we consider it in relation to those natural objects which are *merely* objects of knowledge, or in relation to those spiritual objects which are also subjects of knowledge. We shall therefore consider metaphysic, first, in relation to science in general, and, secondly, in relation to the special science of psychology. The latter question also has two aspects; for, while the idea of a first cause or principle points to the connexion between metaphysic and logic, the idea of a last principle or final cause connects metaphysic with theology. We shall therefore consider in the third place the relation of metaphysic to logic, and in the fourth place its relation to religion and the philosophy of religion.

1. *The Relation of Metaphysic to Science.*—The beginnings of science and metaphysic are identical, though there is a sense in which it may be admitted that the metaphysical comes before the scientific or positive era. The first efforts of philosophy grasp at once at the prize of absolute knowledge. No sooner did the Greeks become dissatisfied with the pictorial synthesis of mythology by which their thoughts were first lifted above the confusion of particular things, than they asked for one universal principle which should explain all things. The Ionic school sought to find some one phenomenon of nature which might be used as the key to all other phenomena. The Eleatics, seeing the

futility of making one finite thing the explanation of all other finite things, tried to find that explanation in the very notion of unity or being itself. We need not underestimate the speculative value of such bold attempts to sum up all the variety of the world in one idea, but it is obvious that they rather give a name to the problem than solve it, or that they put the very consciousness of the problem in place of the solution of it. Science is possible only if we can rise from the particular to the universal, from a subjective view of things as they immediately present themselves to us in perception to an objective determination of them through laws and principles which have no special relation to any particular set of events or to any one individual subject. But this is only one aspect of the matter. To advance from a conception of the world *in ordine ad individuum* to one *in ordine ad universum*, and so to discount and eliminate what is merely subjective and accidental in our first consciousness of the world, is the beginning of knowledge. But little is gained unless the universal, which we reach through the negation of the particulars, is more than their mere negation; unless it is a law or principle by means of which we can explain the particulars. Now the defect of early philosophy was that its universal was "the one beyond the many," not the "one in the many,"—in other words, that it was not a law or principle by which the particulars subsumed under it could be explained, but simply the abstraction of an element common to them. But the process of knowledge is a process that involves both analysis and synthesis, negation and reaffirmation of the particulars with which we start. If we exaggerate the former aspect of it, we enter upon the *via negativa* of the mystics, the way of pure abstraction and negation, which would open the mind to the ideal reality of things simply by shutting it to all the perceptions of sensible phenomena. And, if we follow out this method to its legitimate result, we must treat the highest abstraction, the abstraction of Being, as if it were the sum of all reality, and the Neo-Platonic ecstasy in which all distinction, even the distinction of subject and object, is lost as the only attitude of mind in which truth can be apprehended.

In the philosophy of the Socratic school we find the first attempt at a *systematic* as opposed to an *abstract* theory—the first attempt to bring together the one and the many, and so to determine the former that it should throw light upon the latter. Yet even in Plato the tendency to oppose the universal to the particular is stronger than the tendency to relate them to each other, and in some of his dialogues, as, *e.g.*, in the *Phædo*, we find a near approach to that identification of the process of knowledge with abstraction which is the characteristic of mysticism. Aristotle, therefore, had some ground for taking the Platonic principle that "the real is the universal" in a sense which excludes the reality of the individual. Yet, though he detected Plato's error in opposing the universal to the particular, and though, at the same time, he did not entirely lose sight of the truth which Plato had exaggerated, that the particular is intelligible only *through* the universal, Aristotle was not able to escape the influence of that dualism which had marred the philosophy of his predecessor. Hence the effect of his protest against a philosophy of abstraction was partly neutralized by his separation between the divine Being as pure form and nature as the unity of form and matter, and again by his separation of the pure reason which apprehends the forms of things from the perceptions of sense which deal with forms realized in matter. And after Aristotle's time the tendency of philosophy was more and more to withdraw from contact with experience. The Neo-Platonic philosophy and the Christian theology which was so strongly

influenced by it, contained, indeed, an idea of the reconciliation of God and nature, and hence of form and matter, which must ultimately be fatal to dualism, and therefore to the method of mere abstraction. But the explicit meaning of the philosophy of the Middle Ages was still dualistic, and the mode in which the Aristotelian formulae were wrought into the substance of Christian doctrine by the scholastics tended more and more to conceal that idea of the unity of opposites which was involved in Christianity. Hence mediæval realism presented, in its most one-sided form, the doctrine that "the real is the universal," meaning by the universal nothing more than the abstract. And, as a natural consequence, the modern insurrection of the scientific spirit against scholasticism took its start from an equally bald and one-sided assertion of the opposite principle, that "the real is the individual," meaning by that the individual of immediate perception. If Platonism had dwelt too exclusively on one aspect of the process of knowledge, *viz.*, that it seeks to rise above the particular, the sensible, the subjective, to the universal, the intelligible, the objective, as if in the latter alone were reality to be found, modern men of science learnt from their first nominalistic teachers to regard the universal as nothing more than an abbreviated expression for the particulars, and science itself as a mere generalization of the facts of sensible perception. But this view of scientific knowledge, as a mere reaffirmation of what is immediately given in sense, is as imperfect as the opposite theory, which reduces it to the mere negation of what is so given. An ideal world utterly and entirely divorced from the phenomenal, and an ideal world which is simply a repetition of the phenomenal, are equally meaningless. The processes of science have both a negative and a positive side; they involve a negation of the particular as it is immediately presented in sense, but only with a view to its being reaffirmed with a new determination through the universal. The fact as it is first presented to us is not the fact as it is; for, though it is from the fact as given that we rise to the knowledge of the law, it is the law that first enables us to understand what the fact really means. Our first consciousness of things is thus, not an immovable foundation upon which science may build, but rather a hypothetical and self-contradictory starting-point of investigation, which becomes changed and transformed as we advance.

The nominalism of scientific men in modern times is due to two special causes, one of which has already been mentioned. It is partly due to the traditions of a time when mediæval realism was the great enemy of science. The Baconian protest against the "anticipation of nature" was a relative truth when it was urged against a class of writers who supposed that true theories could be attained without regard to facts; the Baconian assertion of the necessity of attending to *axiomata media* was the necessary correction of the tendencies of mystics, who supposed that philosophy could attain its end by grasping at once at absolute unity, and contented themselves, therefore, with a unity which did nothing to explain the differences. But, when the former was turned into the dogmatic assertion that the mind is, or ought to be, passive in the process of knowledge, as having in itself no principle for the explanation of things, and when the latter was turned into the dogmatic assertion that science can only proceed from part to part and never from the whole to the parts, these relative truths became a source of error. And this error was confirmed and increased by the mistaken views of those who first tried to correct it. For these, admitting that scientific truth is entirely derived from external experience, only ventured to assert the existence of a *priori* knowledge alongside of, and in addition to, that which is a *posteriori*. In other words, they sought in inner experience a basis for

those beliefs which outward experience seemed unable to support. But this basis was soon found to be treacherous. Introspection, observation of the inner life as opposed to and distinguished from the outer life, could be only an observation of the facts of the individual consciousness as such; and to base religion and morality on such a foundation was to treat God and right as subjective phenomena, which do not necessarily correspond to any objective reality. Nor was this conclusion really evaded by the assertion of the self-evidencing necessity of such ideas and beliefs, or of the principles upon which they are founded. For this necessity, as a subjective phenomenon, might be accounted for otherwise than by the supposition of their objective validity. Such scepticism, further, was favoured by the progress of science, which, as it advanced from physics to biology and sociology, became more and more inconsistent with the idea of an absolute breach between inner and outer experience, and narrowed the sphere which had been hitherto reserved for the former. Man, it was urged, is but a part in a greater whole, not exempted from the law of action and reaction which connects all parts of that whole with each other. His individual life contains only a few links in a chain of causation that goes back to a beginning and onward to an end of which he knows nothing. And, as Spinoza says, *vis qua unaquaque res in existendo perseverat a causis externis infinite superatur*. Hence to treat ideas which are only states of the individual consciousness as the explanation of the world, instead of treating them as phenomena to be explained by its relation to that world, seemed to be an absurdity. The particular beliefs and tendencies of the mind were to be regarded, not as ultimate facts in reference to which everything is to be interpreted, but rather as facts which are themselves to be referred to more general causes and laws. It thus appeared that the attempt to divide truth into an *a posteriori* and an *a priori* part, the latter of which should find its evidence in an inner experience as the former in an outer experience, is an illusive process. If the *a priori* is reduced to the level of the *a posteriori*, it becomes impossible to base on the *a priori* any beliefs that go beyond the range of subjective experience. If the self and the not-self are taken simply as different finite things, which we can observe in turn, their relations must be brought under the general laws of the connexion of finite things with each other; and the phenomena of mind must be treated, like the phenomena of matter, as facts to be accounted for according to these laws.

But this of itself indicates a way of escape both from the introspective theory and from the empiricism to which it is opposed. For it suggests the question—What is the source of those very laws which guide the procedure of science in accounting for facts, psychological facts among others? When a scientific psychologist of the modern school attempts to show how by habituation of the individual and the race the necessity of thought expressed in the law of causation was produced in the minds of the present generation of men, it is obvious that his whole investigation and argument presuppose the law whose genesis he is accounting for. A glaring instance of such circular reasoning is found in the writings of the most prominent representative of the school in the present day. Mr Spencer begins by laying down as a first postulate of science that necessity of thought must be taken as a criterion of truth. It is by the continual aid of this postulate that he constructs his system of nature, and finally his psychological theory of the development of consciousness in man. Yet the main object of this psychological theory seems to be to account for the very necessities with which the author starts. Obviously such a

philosophy contains elements of which the author is imperfectly conscious; for it involves that mind is not only the last product but the first presupposition of nature, or, in other words, that in mind nature returns upon its first principle. But to admit this is at once to lift the conscious being as such above the position which he would hold as merely a finite part of a finite world. It is to assert that nature has an essential relation to a consciousness which is developed in man, and that in the growth of this consciousness we have, not an evolution which is the result of the action of nature as a system of external causes upon him, but an evolution in which nature is really "coming to itself," *i.e.*, coming to self-consciousness, *in him*.

Now it was Kant who first—though with a certain limitation of aim—brought this idea of the relativity of thought and being to the consciousness of the modern world. In the *Critique of Pure Reason*, thought, indeed, is not set up as an absolute *prius*, in relation to which all existence must be conceived, but it is set up as the *prius* of experience, and so of all existences which are objects of our knowledge. Experience is for Kant essentially relative to the conscious self; it exists through the necessary subsumption of the forms and matter of sense under the categories, as, on the other hand, the consciousness of self is recognized as essentially dependent on this process. On this view, the *a priori* and *a posteriori* factors of experience do not really exist apart as two separate portions of knowledge. If they are severed, each loses all its meaning. Perceptions in themselves are void; categories in themselves are empty. We do not look outwards for one kind of truth and inwards for another, nor do we even, by an external process, bring facts given as contingent under principles recognized as necessary; but the *a priori* is the condition under which alone the *a posteriori* exists for us. Even if it is allowed that the facts of inner and outer experience contain a contingent element or matter, given under the conditions of time and space, yet neither time nor space nor the facts of experience conditioned by them exist for us except as elements of an experience which is organized according to the categories.

This is the essential truth which Kant had to express. It is marred in his statement of it by the persistent influence of the abstract division between contingent matter given from without and necessary principles supplied from within, a division essentially inconsistent with the attempt to show that the contingent matter is necessarily subsumed under these principles, and indeed exists for us only as it is so subsumed. But Kant himself puts into our hands the means of correcting his own inadequacy, when he reduces the inaccessible thing in itself, which he at first speaks of as affecting our sensibility and so giving rise to the contingent matter of experience, to a noumenon (*νοούμενον*) which is projected by reason itself. The *Dialectic* exhibits the idea of thought as not only constituting finite experience but also reaching beyond it, though as yet only in a negative way. The mind is, on this view, so far unlimited that it knows its own limits; it is conscious of the defects of its experience, of the contingency of its sensible matter, and the emptiness and finitude of its categories; and by reason of this consciousness it is always seeking in experience an ideal which it is impossible to realize there. Thought measures experience by its own nature, and finds it wanting. It demands a kind of unity or identity in its objects which it is unable to find in the actual objects of experience. It is this demand of reason which lifts man above a mere animal existence, and forces him by aid of the categories to determine the matter of sense as a world of objects; yet, as this finite world of experience can never satisfy the demand

of reason, the consciousness of it is immediately combined with the consciousness of its limited and phenomenal character. The student of the *Critique of Pure Reason* cannot but recognize the strange balance between the real and the phenomenal in which it ends, allowing to man the consciousness of each so far as to enable him to see the defects of the other,—so that by aid of the pure identity of reason he can criticize and condemn the "blindness" or unresolved difference of experience, and by means of the concreteness and complexity of experience he can condemn the "empty" identity of reason.

In order, however, to understand the full bearing of Kant's criticism of knowledge, and at the same time to find the meeting-point of the opposite currents of thought which alternately prevail in it, it will be necessary to consider the subject a little more closely. The lesson of the *Critique* may be gathered up into two points. In the first place, it is a refutation of the ordinary view of experience as something immediately given for thought and not constituted by it. In the second place, it is a demonstration of the merely phenomenal character of the objects of experience, *i.e.*, the demonstration that the objects of experience, even as determined by science, are not things in themselves. Both these results require to be kept clearly in view if we would understand the movement of thought excited by Kant. On the one hand Kant had to teach that what is ordinarily regarded as real, the world of experience, is transcendently ideal, *i.e.*, is determined as real by *a priori* forms of thought. On the other hand he had to teach that the world so determined is empirically and not transcendently real, *i.e.*, its reality is merely phenomenal. With the former lesson he met the man of science, and compelled him to renounce his materialistic explanation of the world as a thing which exists in independence of the mind that knows it. The world we know is a world which exists only as it exists for us, for the thinking subject; hence the thinking subject, the ego, cannot be taken as an object like other objects, an object the phenomena of which are to be explained like other phenomena by their place in the connexion of experience. Having, however, thus repelled scientific materialism by the proof that the reality of experience is ideal, Kant refuses to proceed to the complete identification of reality with ideality, and meets the claims of the metaphysician with the assertion that the reality of experience is merely phenomenal. Hence he rejects any idealism that would involve the negation of things in themselves beyond phenomena, or the identification of the objects of experience with these things. The reality we know is a reality which exists only for us as conscious subjects, but this, though it is the only reality we can know, is not the absolute reality.

It is, however, to be observed that the nature of this opposition between phenomena and things in themselves seems to change as we advance from the *Analytic*, where the existence of such things is presupposed, to the *Dialectic*, where the grounds of that presupposition are examined. At first the opposition seems to be between what is present in consciousness and what is absolutely beyond consciousness. The matter of experience is regarded as given externally in the affections of the sensible subject,—affections caused by an unknown thing in itself, of which, however, they can tell us nothing. On the other hand the form of experience, the categories and principles of judgment which turn these affections into objects of knowledge, are not pure expressions of the real nature, the pure identity, of the subject in itself, but only products of the identity of the self in relation to the sensibility and its forms of time and space. Hence, on both sides we must regard experience as merely phenomenal, alike in relation to the

noumenal object and in relation to the noumenal subject, which lurk behind the veil and send forth into experience on the one side affections which become objects through their determination by the unity of thought, and on the other side an identity of thought which becomes self-conscious in relation to the objects so determined by itself.

Kant, however, having thus answered the question of the possibility of experience by reference to two things in themselves which are out of experience, is obliged to ask himself how the consciousness of these two things in themselves, and the criticism of experience in relation to them, is possible. And here, obviously, the opposition can no longer be conceived as an opposition between that which is and that which is not in consciousness. For the things in themselves must be present to consciousness in some fashion in order that they may be contrasted with the phenomena. If, therefore, phenomena are now regarded as unreal, it must be because we have an *idea of reality* to which the reality of experience does not fully correspond. In the *Analytic* Kant had been speaking as if the real consisted in something which is not present to the conscious subject at all, though we, by analysis of his experience, can refer to it as the cause of that which is so present. Now in the *Dialectic* he has to account for the fact that the conscious subject himself is able to transcend his experience, and to contrast the objects of it as phenomenal with things in themselves.

Now it is obvious that such an opposition is possible only so far as the thought, which constitutes experience, is at the same time conscious of itself in opposition to the experience it constitutes. The reason why experience is condemned as phenomenal is, therefore, not because it is that which exists for thought as opposed to that which does not exist for thought, but because it imperfectly corresponds to the determination of thought in itself. In other words, it is condemned as unreal, not because it is ideal, but because it is *imperfectly* ideal. And the absolute reality is represented, not as that which exists without relation to thought, but as that which is identical with the thought for which it is. In the *Dialectic*, therefore, the noumenon is substituted for the thing in itself, and the noumenon is, as Kant tells us, the object as it exists for an intuitive or perceptive understanding, *i.e.*, an understanding which does not synthetically combine the given matter of sense into objects by means of categories, but whose thought is one with the existence of the objects it knows. It is the idea of such a pure identity of knowing and being, as suggested by thought itself, which leads us to regard our actual empirical knowledge as imperfect, and its objects as not, in an absolute sense, *real* objects. The noumena are not, therefore, the unknown causes by whose action and reaction conscious experience is produced; they represent a unity of thought with itself to which it finds experience inadequate. This higher unity of thought with itself is what Kant calls reason, and he identifies it with the faculty of syllogizing. Further, he finds in the three forms of syllogism a guiding thread which brings him to the recognition of three forms in which the pure unity of reason presents itself to us in opposition to the merely *synthetic* unity of experience, a psychological, a cosmological, and a theological form. In each of these cases the empirical process of knowledge is accompanied, guided, and stimulated by an idea which nevertheless it is unable to realize or verify. In psychology we have ever present to us an idea of the identity of the self, which is never realized in our actual self-consciousness, because the self of which we are conscious is manifold in its states and because it stands in relation to an external world. The idea of simple identity is, therefore, something we may set