

## CHAPTER I

### Kant's Theory of Synthetic a Priori

Kant's critical philosophy may be called essentially 'an enquiry into the nature and function of synthetic a priori judgements'<sup>1</sup>. The expression 'synthetic a priori' is typically Kantian in the sense that no philosopher before Kant clearly thought of combining the terms 'synthetic' and 'a priori' together to form that expression. It is not the case that the idea of combining those two terms somehow escaped the attention of the pre-Kantian philosophers. The fact rather is that they were not ready to combine. And it would not be misleading to say that it is under this background that the expression 'synthetic a priori' draws so much attention from all quarters. It may be said that though some of the predecessors of Kant, like Hume and Leibniz, hold that all a priori judgments are analytic, all

are not of the same opinion. Locke has recognised the existence of synthetic a priori judgments. Hence Kant can not claim originality in the act of combining the terms 'synthetic' and 'a priori' together. But this is a gross mistake, since Kant does not mean by synthetic a priori judgments exactly what his predecessors mean when they affirm or deny synthetic a priori judgements. Kant's predecessors use the term 'a priori', as it is applied to judgment, in the traditional sense, which is different from Kant's sense of the term. C.D. Broad observes '... Locke held that there are in fact plenty of judgments which are both a priori in the traditional sense and synthetic. Others, e.g., Leibniz held that this is a mistake, and that all judgments which are a priori in the traditional sense must be analytic'<sup>2</sup>.

But the use of the expression 'synthetic a priori' is not clear enough in Kant's philosophy. In the first 'critique' i.e., Critique of Pure Reason Kant has used the expression with reference to judgment or cognition. This does not mean that the expression can not be intelligibly used beyond that context even if we use the terms, 'synthetic' and 'a priori' in Kant's sense of the terms. But what is more important is that it would not be wrong to hold that Kant's use of the expression 'synthetic a priori' in his other two

'critiques' is not exactly similar to that of the first 'critique'. I call this 'more important' since Kant's own claim in this respect is something radically different. In what follows we shall, of course, confine our discussion of the 'synthetic a priori' within the first 'critique'.

## [ II ]

With reference to judgment no philosopher before Kant used the expression 'synthetic a priori'. Judgments are either analytic a priori or synthetic a posteriori. 'Hitherto, both by the sensationalists and by the rationalists, all synthetic judgments have been regarded as empirical, and all a priori judgments as analytic'<sup>3</sup>. Kant makes an addition to this list of judgment by recognising a new type of judgment which is synthetic and a priori at the same time. It is, of course, interesting to note that credit to a great extent for this discovery of Kant should go to a person who would himself oppose the characterisation of judgment as 'synthetic a priori'. The brilliant and consistent approach of Hume to the problem of universal causation was a great help to Kant in hitting upon the idea of synthetic a priori judgment. This is clear from Kant's own confession that it was Hume's attack on the law of causation which 'aroused him from his dogmatic slumbers'<sup>4</sup>. Let us dwell upon this point at some length.

## [ III ]

Hume makes an exhaustive and exclusive distinction between two kinds of propositions viz., necessary and contingent. "All the objects of human reason or enquiry", Hume holds, "may naturally be divided into two kinds, to wit, Relation of Ideas, and Matters of Fact. Of the first kind are the sciences of Geometry, Algebra, and Arithmetic, and in short, every affirmation which is either intuitively or demonstrably certain ... propositions of this kind are discoverable by the mere operation of thought, without dependence on what is anywhere existent in the universe ... Matters of fact, which are the second objects of human reason, are not ascertained in the same manner; nor is our evidence of their truth, however great, of a like nature with the foregoing. The contrary of every matter of fact is still possible; because it can never imply a contradiction, and is conceived by the mind with the same facility and distinctness, as if ever so conformable to reality"<sup>5</sup>.

An essential feature of Hume's analysis of the causal principle, 'every event has a cause' is that he denies this principle to be identical in status with the mathematical propositions. Mathematical propositions are necessary. They can not be denied without self-contradiction. But

this is not the case with the causal principle. We have no right to infer the effect from the existence of an antecedent event. No logical principle justifies our journey from the cause to the effect. No event in itself, Hume asserts, implies the existence of any other. The causal principle can be known only a posteriori.

This view of Hume has been anticipated by Spinoza. He is of the opinion that 'there is no kind of reciprocal influence between the physical and the mental and no reason why bodies should think or mind should have bodies'<sup>6</sup>. Leyden rightly holds that if 'this view is generalised one might argue that there is no more than a concomitance between certain physical event and a corresponding mental one, but never a necessary or any other kind of connection'<sup>7</sup>.

Hume's analysis of the causal principle really poses a challenge to the validity of science itself. To accept this challenge is to show that we can have synthetic a priori judgments, in the sense in which Hume has denied it. To see how Kant performs the difficult task of combining necessity or a priority and syntheticity together let us follow the convenient procedure of discussing certain important distinctions and relevant relations. Kant has made two divisions, one is between a priori and empirical or a posteriori and the other is between synthetic and analytic. Both these divisions are exclusive and exhaustive. Let us

start with the first one.

[ IV ]

A priori and a posteriori : Kant is not the first man to make the distinction between a priori and a posteriori or empirical. Albert Saxony has made it in the fourteenth century. But Kant's way of making the distinction is quite different. Of the two forms of knowledge, a priori and empirical, the former deserves special attention since it crosses the limit of what is directly known by sense-perception. Clue to Kant's distinction between a priori and a posteriori is given in just two sentences ; 'In respect of time all knowledge begins with experience. But it does not therefore follow that it all arises from experience'. It indicates that there is knowledge which begins with experience and also arises out of experience, and again knowledge which begins with but does not arise out of, experience. Knowledge of the first kind is empirical and of the second kind a priori.

This distinction like the one between analytic and synthetic is very much important for Kant's thesis that some judgments are synthetic a priori. For making this

distinction clear Kant has given definition and also criterion of a priori knowledge or truth. But inspite of this there is reason to doubt whether Kant has been successful in making the concept of 'a priori' clear just with the help of this definition and criterion. The failure may be due to the fact that "under the concept of 'a priori' Kant has included so many characteristics which do not seem necessarily to<sup>go</sup> together". As we proceed further, it will be evident that in fact, in most of the cases, Kant goes beyond his definition and criterion to decide whether a given truth is a priori or not.

Kant defines a priori knowledge as that which is independent of experience and even of all sense-impressions. Here the term 'independent' should not be interpreted in the psychological sense. Kant has clearly said that temporally no knowledge can precede experience. What Kant wants to mean is that an a priori judgment is not accepted on the evidence of experience. On the contrary, we may say that an empirical judgment is that which is accepted only on the evidence of experience.

The definition of 'a priori' judgment given by Kant is not as much clear as is required to distinguish infalliably a priori from empirical judgments. Perhaps, Kant was aware of that. He felt the necessity of stating

some criteria. "In all changes of the material world, the quantity of matter in the universe remains unchanged"<sup>9</sup> is an example of a priori judgment given by Kant. But unless we assume that the concept of 'permanency' is deducible from the concept of 'matter' we cannot necessarily say that the proposition can be known to be true without empirical evidence.

It is suggested that a priori judgments are 'logically' independent of experience. But the use of the word 'logically' does not seem to improve the situation. We may say that there is a relation of logical independence between two propositions if the truth or falsity of the one is not affected by that of the other. Now to show the relation of logical independence between a priori judgments and experience we should say that a judgment is a priori if it is logically independent of all judgments which describe experience, i.e., all empirical judgments. Thus in order to ascertain that there is a relation of logical independence between a given judgment and experience we have to know beforehand which judgments are a priori and which are empirical by some other way. Thus to try to distinguish an a priori judgment from an empirical one by using the relation of logical independence is to beg the question.

"Kant believes that necessity and strict universality, although not used in his definitions of a priori judgments, are jointly and separately, adequate tests of their a priori character"<sup>10</sup>. He has used necessity and strict universality as two separate infalliable marks of a priori judgments with the hope that by applying these criteria we would be in a position to distinguish between a priori and empirical judgments. Without examination Kant assumes that necessity and strict universality can not be derived from experience. This exactly what Hume also believes. After making that assumption Kant goes on to hold that if any judgment has the characteristic of being necessary and universal, it is not derived from experience. In otherwords, it is a priori.

But what do we achieve here ? We fail to show that necessity or universality is a criterion for distinguishing between a priori and empirical judgments. First Kant assumes that necessity or universality is not derived from experience, which amounts to saying that empirical judgments are not necessary or universal. Then he holds that necessary or universal judgments are not empirical, i.e., they are a priori. From this we can not say that a judgment is a priori because it is necessary or universal.

Let us now come to the meaning of necessity and universality. A judgment is necessary, Kant holds, if the

opposite of it is inconceivable. And a judgment is strictly universal if an exception to it is impossible. Now let us apply these criteria upon the following judgments :

- (a) all metals expand when heated; and
- (b) all animals take food.

It can not be denied that these judgments have not yet been found to be false. We have not met any contrary instance. But Kant will not recognise them to be necessary or universal. It is true that Hume also will not take them to be necessary. But how are we to decide that their opposite is conceivable or that they do admit of an exception ? We can not appeal to experience, for experience, according to Kant, can not teach us necessity. Secondly, in experience we have not yet found any exception and so just depending upon experience we can not say that an exception is possible.

Neither can we appeal to the law of contradiction or any other law of logic, for the simple reason that according to Kant, all a priori judgments are not justified by the law of contradiction (or we may say by logical laws).

We thus lead to the position that before we come to know any judgment to be necessary or universal we know it to be a priori on the basis of some ground other than necessity or strict universality. The universal causal principle, for example, is a priori not because it is

necessary, in the sense explained, but rather because it is an assumption of the possibility of experience itself. This is the stand which Kant adopts in the case of a priori concepts also. Space and time, for example, are a priori and not empirical because they make experience possible. It may be noted here that Warnock<sup>11</sup> has recognised the universal causal principle to be 'a priori' but he does not call it necessary. He has accepted this principle to be a priori on a different ground. The causal principle is a priori since it can not be refuted by experience. But experience can not refute it, Warnock holds, not because it is necessary but because it is uninformative or vacuous.

[ v ]

Analytic and synthetic :

All judgments, holds Kant, are either analytic or synthetic, there is no third alternative. In this respect Kant agrees with Leibniz and Hume. Though Leibniz and Hume do not actually use these terms, the foreshadow of Kant's distinction is found in the distinction between 'Truths of Reason and Truths of Fact' and also in the distinction between 'Relations of Ideas and Matters of Fact'. It is interesting to note that though Kant, Leibniz and Hume do

not differ on the essential nature of analytical judgment and though the pair of terms in the three distinctions are used as contradictory terms, Kant's distinction is different from that of the others. But let us confine ourselves to Kant's distinction.

Kant holds that in all judgments where the relation of a subject to the predicate is thought, this relation is possible in two different ways. "Either the predicate B belongs to the subject A, as somewhat which is contained (though covertly) in the conception A; or the predicate B lies completely out of the conception A, although it stands in connection with it. In the first instance, I term the judgment analytical, in the second, synthetic. Analytical judgments (affirmative) are therefore those in which the connection of the predicate with the subject is cogitated through identity; those in which this connection is cogitated without identity, are called synthetic judgments"<sup>12</sup>.

There are philosophers like Quine<sup>13</sup> who do not admit of the synthetic-analytic distinction of judgments and all who recognise such a distinction of judgments do not agree with the Kantian way of making this distinction. The main objections against the Kantian distinction between synthetic and analytic judgments are, according to Korner, two,

"first that Kant considers only subject-predicate judgments and secondly that his definition of an analytic judgment as one whose subject contains its predicate is metaphorical and therefore too vague"<sup>14</sup>.

Thus Kant's definition of analytical judgment is both too vague and too narrow. These objections are not baseless but they are not very serious; we may get rid of them. The definition is vague, since a term of a judgment can not be contained in another term in the sense in which a physical object can be in another physical object. We may say, however, that the predicate is contained in the subject in the sense that the predicate does not go beyond the subject. To get the predicate we need not depend upon experience; we get it simply through an analysis of the subject. This means that an analytical judgment is uninformative or vacuous.

The objection of too narrowness can also be removed. Apart from a definition, Kant has given a criterion of analytical judgment. An analytical judgment, Kant holds, is such that it can not be denied without self-contradiction. Analytical judgments are logically necessary for they are justified by the 'law of contradiction'. Thus we may reconstruct the definition of analytical judgment as : A judgment is analytical if its denial involves self-contradiction. This definition applies even to those

judgments which are not in the subject-predicate form.

Kant, perhaps, thinks that once we have the 'criterion' we can without difficulty ascertain whether the predicate of a given judgment is contained in the subject of that judgment, i.e., whether the judgment is analytic or not. But is it really so? The judgment ' $7 + 5 = 12$ ' is analytical according to Hume. Hume thinks that the denial of it involves self contradiction. But strangely enough, Kant does not think this denial to be self-contradictory. It seems that whether the denial of a judgment involves self-contradiction is to be determined by whether the predicate of that judgment goes beyond the subject of it. The case being so, the criterion fails to perform the function it is supposed to do.

In the case of synthetical judgments the predicate goes beyond the subject. We can not get the predicate just through an analysis of the subject. Such judgments extend our knowledge. They can not be justified by the law of contradiction (or, let us say, by logical laws).

Kant has not explicitly stated any criterion of synthetical judgments. But as Kant thinks such judgments to be contradictory of the analytical ones, we may use a negative criterion. One might say, a judgment is synthetical

if its denial is not a contradiction in terms. But as it is not clear when the denial of a judgment involves self-contradiction, we are again brought to the difficulty that we have faced in case of analytical judgments.

[ VI ]

Let us now see what Kant means by synthetic a priori judgments and how they are possible. But before we do that we may note one interesting point that though Kant and Hume agree on so many points, one of them admits and the other denies the possibility of synthetic a priori judgments. The points of similarities and differences between them will be of great help in answering the question : How does Kant perform the difficult job of combining the terms 'a priori' and 'synthetic' together or, what does he mean by synthetic a priori judgments ? Both of them believe that experience can not teach us necessity. They believe a priori judgments to be necessary. Again, they hold that all analytical judgments are necessary on the ground that their denial involves self-contradiction. They have taken 'analytical' to be the contradictory of 'synthetical' and 'a priori' of 'empirical'.

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In spite of these points of agreement Hume does not think synthetic a priori judgments to be possible. First, to him all a priori judgments are analytical and so they are justified by the law of contradiction (or, we should better say, by laws of logic). The synthetical judgments, according to both Hume and Kant, are not so justified. Second, according to Hume, all synthetical judgments are about matters of fact and so they are empirical. What is empirical can not be a priori. Third, Hume thinks that there is only one kind of necessity, in the true sense of the term. This necessity is intrinsic necessity found in analytical propositions. The necessity of the analytical judgments follows from the meaning of the terms occurring in them.

If we agree with Hume's beliefs and assumptions, we have reason to accept his conclusion that there is no synthetic a priori judgment.

Let us see how Kant differs from Hume. (1) For Kant all analytical judgments are a priori but all a priori judgments are not analytical. He uses the concept of 'a priori' in such a wide sense that it does not necessarily exclude synthetical judgments. (2) Kant does not use the words 'synthetical' and 'empirical' as identical. The judgments which state the general conditions or principles of the possibility of experience are synthetical, but they

are not empirical. So synthetic judgments can be a priori. (3) Kant recognises a new kind of necessity which is different from the necessity found in the analytical judgments. This is what is called 'transcendental necessity'. The general principle of causation is synthetic but it is necessary too, in the sense that it is one of the organising principles of experience, and, for that matter, of the physical sciences. We can not have the physical sciences without this principle. This necessity, it might be said, is imposed upon something from without.

[ VII ]

Kant's synthetic a priori judgments can not be logically necessary for the simple reason that they are not analytic. They must be necessary or a priori in a different sense, a new sense. This new sense can be made clear if we follow his treatment of the principle of universal causation, 'every event has a cause', which is recognised by him as a synthetic a priori judgment. It is clear that Kant's synthetic a priori judgments, in the Critique of Pure Reason, are not self-evident truths. If they were so, Kant would not have to take so much pain to prove them. Proof, of course, does not mean here what it generally means.

Kant's proof of synthetic a priori judgments does not start from some self-evident premises, but from some contingent, though very general, facts about the way in which human mind works. Thus Kant's synthetic a priori judgments are 'transcendentally a priori' and not 'absolutely a priori'. This, of course, does not mean that Kant's synthetic a priori judgments are transcendentally a priori in his other 'critiques' also.

Though we have synthetic a priori judgments, the range of such judgments, Kant admits in the Critique of Pure Reason, is very limited. We have synthetic a priori judgments so far we are concerned about objects of possible sense-perception. 'The moment you try to apply these a priori propositions to objects like God and the soul, which could not possibly be perceived by the senses, they lose all intelligible meaning'. This is because Kant's synthetic a priori propositions are 'principles of organisation or connexion which convert a chaotic mass of sensations into the perception of ostensibly a world of permanent extended law-abiding objects'<sup>15</sup>.

The judgment 'every event has a cause' is synthetic for in the conception of an event we do not, Kant asserts, cogitate the conception of a cause. But this judgment is not necessary in the sense that its denial is a contradiction

in terms. This universal law of causation is necessary or a priori in the sense that it states a condition or assumption of the possibility of the objects of perception, of theoretical knowledge. The way we are constituted, we must assume the causal principle to be true if we are to explain the possibility of human experience. Thus the causal principle has no intrinsic necessity of its own; it is necessary or a priori only in the transcendental sense. Kant's synthetic a priori judgments are statements of the conditions of the possibility of objects themselves.

[ VIII ]

Now if we are to reach any conclusion from the above considerations of Hume and Kant, the reasonable conclusion seems to be that two different but not opposed theses have been upheld by Kant and Hume on different sets of premises; so none can be proved false on the strength of the other. Kant has not done, as it is sometimes thought, what Hume has failed to do, remaining within the same framework in which Hume worked. Kant has been successful and Hume has failed, to combine the terms 'synthetic' and 'a priori' together on different grounds. But we may mention one point which will, perhaps, add an extra weight to Kant's

thesis, 'some judgments are synthetic a priori'. This point is that knowledge is something more than unconnected brute facts of experience. It is something to be organised. This stand has also been taken by the Gestalt psychologists who interpret perception to be a case of organisation. This organisation requires a principle which is not itself one of the items to be organised. It is to be supplied by the organiser himself. Every organisation points to a beyond. Kant's synthetic a priori judgments are principles of organisation, constitutive principles of human experience. This fact of organisation may be counted as a point for preferring Kant's thesis that there are synthetic a priori judgments.

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