Before entering into our main problems, I think it is necessary to show the fundamental difference between the traditional problem and the more recent one discussed in modern analytic philosophy concerning the nature of knowledge. To show this, I have considered it appropriate to dwell on some major traditional and analytic philosophers who truly represent their ages. The first section contains a discussion on Plato's problem of knowledge. The second one carries an analysis of Descartes's search for certainty. In the third section, I have tried to give an estimate of Kant's theory of synthetic a priori. In this connection, I have compared the view of Kant to that of Plato, Descartes and Hume respectively. The analytic school of modern philosophy has shifted the interest away from speculative thought. They begin to deal with problems of knowledge by the linguistic analysis method. They try to analyse every sentence, every clause of a sentence and every important word. And they think it is the proper method of philosophy by which one can have a clear conception of the subject of study. In the fourth section, an attempt has been made to show the use of analytic method in philosophy and the application of this method in solving traditional philosophical and epistemological problems.
SECTION - I PLATO'S PROBLEM

The discussion of epistemological problems was started by the fifth century Sophists and in particular by Protagoras. But there was a good deal left for Plato to contribute. The dialogues written by him in the three different periods of his writings (which we can characterize as the earlier period, the transition period and the period of maturity) deal with two inter-related epistemological problems. These are the problems concerning the possibility of meaningful falsity (of false logos) and the problem of distinguishing knowledge from true belief. These two problems are related to each other very closely by Plato. For example, in the Theaetetus, the discussion of the relationship of knowledge and belief leads at once to the question of the possibility of false belief (187 B-D). With the former of these two problems Plato connects a number of further questions (the existence of not-being, the impossibility of contradiction, etc.).

In the earlier dialogues, e.g., in the Meno and Phaedo, the theory of recollection (anamnesis) helped Plato to distinguish between knowledge and belief. In the Meno, he suggests that knowledge requires to be tied down 'by working out the reasons' which is by recollecting what was known before birth. But in the Phaedo, there is some discussion of the view, scarcely mentioned in the Meno, that knowledge and belief should be distinguished by
their objects and by different facilities employed. Knowledge of forms-in-objects is recollected, and unlike belief, involves the ability to give an account of what is given. There is also in the *Phaedo* some further development of the idea that what is known is unchanging and cannot be otherwise; what is believed is, by contrast, in flux and allows of contradictory possibilities.

In the *Republic*, a dialogue of the transitory period, there are further developments of the views put forward in the *Phaedo* that particular objects are copies or 'images' of the forms, that knowledge is distinguishable from belief by reference to their different objects, and that knowledge is necessarily true. In the elaborate analogies of the Sun, the divided line and the Cave, the distinction between knowledge and belief is worked out not only in terms of ontological differences between forms and particulars, timeless truths and shifting contingencies, and corresponding different states of mind, but also in terms of a systematic body of knowledge, hierarchically organized. Of all Plato's dialogues, it is in the *Republic* that the distinction between knowledge and belief is most uncompromisingly drawn. There seems no room left for Meno's slave-boy coming to know what he now rightly believes, nor much room for being remedied of equality by seeing equal, or unequal sticks of the *Phaedo*. Plato is here as ruthless with his argument as with his prisoners. Belief is at most the beginning of a long trek which will take one through all known and foreseeable
mathematics towards the philosophical goal. Knowledge must be of what is timeless and changeless, and must also have an absolutely certain starting point. This can be grasped only after years of philosophical labour spent in testing the consequences of hypotheses, and setting up higher hypotheses from which these can be derived. With belief there is no such problem. It does not need to be true, or even to be rational.

In the *Timaeus* (51 e) Plato shows that he is not content with the answer of the *Republic*. He lists, a number of differences between knowledge and belief, and offers them as reasons for saying that these are concerned with different objects: 

"Knowledge is produced by instruction, belief by persuasion, knowledge can always give a true account of itself, belief cannot; knowledge cannot be shaken by persuasion, belief can be won over; belief is common to all, knowledge is possessed only by the gods and a few men." None of these points are inconsistent with the views of the *Republic*, but he does not there collect such an extreme list of differences.

In the *Timaeus* Plato writes:

"My own verdict, then is this: If intelligence (or knowledge, Διάνοια and true belief (δοξή) are two different kinds, then these things—Forms that we cannot perceive but only think of
or : have knowledge of - certainly exist in themselves; but if, as some hold, true belief in no way differs from intelligence then all the things we perceive through the bodily senses must be taken as the most certain reality.

Theaetetus and Sophists are the works of Plato's old age. In Theaetetus, Plato shows that belief is incompatible with and falls short of knowledge. Belief can be true or false; but it is not easy to explain how false belief is possible. In Theaetetus an important problem is whether knowledge can be identified with true belief, or with true belief together with an 'account' or 'explication' (logos). If knowledge were identical with true belief, there would be no cases of true belief that are not also cases of knowledge; but there are. In a law court, the juries can be rightly persuaded of the defendant's guilt even in cases where we would not say they know he was guilty (201). The second suggestion poses greater problems. It goes by default, since no satisfactory meaning of explication is produced which will serve to distinguish knowledge from true belief. The dialogue ends negatively with no positive solution. Cornford holds that Plato's main purpose is to convince us that knowledge is possible only of Forms or Ideas which are noticeable by their absence from the dialogue, but he does not give much indication of how logos should then be interpreted.
The above discussion makes it clear that knowledge differs from belief in respect of its objects or aims. The idea of an aim or goal (telos) plays an important role in Greek thought. Plato in his epistemological discussions gives special emphasis on it. According to him, both knowledge (epistēme) and belief (doxa) are 'faculties' or 'powers' (dynamis) but they differ in respect of their aims (erga) or objects.

After this general discussion, we follow Hintikka in analysing the problems concerning knowledge and belief in Plato.

In the fifth book of Republic (475 - 480), Plato proves the existence of forms by showing that the difference between knowledge and belief consists in the difference between their objects. Hintikka schematically represents the structure of such arguments as follows:

"Step (1) : Knowledge and belief are different (proved by earlier argument)

(2) : Knowledge and belief are faculties. (assumption)

(3) : Different faculties (dynamis) are distinguishable from each other by "what they accomplish and what they pertain to" - in brief, by their respective aims. (assumption)

(4) : The aims of knowledge and belief are different (inference from (1) - (3)
Step (5) : The aims of knowledge and belief are their objects – i.e., the things knowledge and belief are about. (assumption)

Step (6) : The objects of knowledge and belief are different (inference from (4) and (5))

Here we see how different assumptions lead to the conclusion (step (6)): Steps (2), (3) and (5) are suggested by Plato's emphasis on aims or goals. While all other steps are explicit in Plato, step (5) is a tacit assumption. Plato perhaps assumed that the functions, aims and objects of each faculty are more or less interdependent. But Hintikka formulates it in its most explicit form by identifying objects with aims. In step (6) Plato states that the objects of knowledge and belief are different. The objects of knowledge are forms – eternal, unchanging and real, while the objects of belief are the objects of senses which are fleeting and mere appearances.

In step (1), the difference between knowledge and belief means their difference in 'logical behaviour'. While knowledge, according to Plato, cannot fail to be true; belief has always the possibility of being false. Hintikka puts this in the form of an implication:

\[ (*) \ a \text{ knows that } P \implies P \]

unlike the analogous implication

\[ (**) \ a \text{ believes that } P \implies P \]

which is often false.
This difference in the logical behaviour of the two kinds of faculties is found in the proof of the existence of Forms in the Republic (V, 476 D - E). The knowledge of Forms proves their existence, but our belief in sensual objects does not prove their real existence. The logical difference between the two faculties leads Plato to conclude that knowledge and belief are different.

The most crucial assumption in the above schematized reasoning is step (5) where the aims of knowledge and belief are identified with their objects. The conceptual teleology of Greeks is reflected in Plato's peculiar way of looking at the relation of knowledge to its objects. Plato's tacit near-identification of the objects and aims of faculties is nothing but a further consequence of the same old traditional assumption that our faculties of knowing and thinking try to 'hit' or 'reach' their objects and they try to realize themselves in these objects. This tendency is shown by Bruno Snell.¹

The ultimate consequence of such identification seems to be paradoxical, for it identifies the objects of the faculties with their products. But in the case of an epistème which is manifested as a practical skill, this identification is not paradoxical.

The goal directed model leads Plato to hold that every dynamis or faculty must have an object. It means that the propositional attitude of knowledge cannot fail to have its object. This requirement encouraged Plato to prove the validity of (*). But by the same token, the validity of (***) cannot be proved. Belief, like knowledge is also a dynamis and therefore must have its objects.
Belief in its objects does not prove their real existence. For, these objects, by their very nature, are always changing. Hintikka in an earlier paper suggested that Parmenides accepted a principle that was closely related to (**) and can be put in the following form:

"(***) a thinks that P \( \rightarrow \) P".

In both cases, the starting point was the validity of (*). The difference is that Plato compared it with (**) and in Parmenides it was compared with (***)

The close relation between knowledge and its objects implies a direct relation between the knower and the objects of knowledge. For Plato, knowledge was 'a sort of mental seeing or touching,' as W. G. Runciman has put it. Evidence in favour of saying that Plato thought of knowledge as the mental seeing, grasping or touching of a knowable object has been drawn from a number of dialogues, up to and including Phaedrus (249 d - 250C) and the Seventh Letter. In the Republic, he talks of knowledge in terms of seeing, touching, contemplating, and speaks of the eye of the soul, as well as using extensive analogies between knowing the forms and seeing particular visible objects. Runciman has convincingly shown that this peculiarity of Plato does not undergo any modification in the epistemologically central dialogues— Theaetetus and Sophists. Hintikka refers to it as 'knowledge as
Plato's idea of knowledge as acquaintance is sometimes misleadingly explained by his frequent use of the direct-object construction. According to some, the Greeks wrongly assimilated all the uses of the verbs for knowing, to the direct-object construction and the idea of knowledge as acquaintance is a consequence of this fallacious assimilation. It is a fact that Plato uses the direct-object construction in a number of contexts. John Lyons shows that the direct-object construction (in its several varieties and in connection with the different Greek verbs for knowing) was not infrequent in Plato. But the frequent use of direct-object construction is no proof that it led him to his view of knowledge as acquaintance or knowledge as a direct relation between the knower and the known. Lyons himself holds that there are more instances of the propositional constructions in Plato than of all the other types of constructions combined. According to Hintikka, Plato mainly relies on 'methods of individuation' which depend on the personal situation and personal history of the knowing agent. When Plato uses the direct-object construction with verbs of cognition, he tends to think of cognitive matters from the standpoint of someone's personal acquaintance situation. So the tacit conceptual assimilation of knowledge to something like direct perception made by the Greeks as well as Plato is not a result of purely linguistic confusion. It is closely connected with the situational character of Greek epistemology. This
factor combined with some others encourages the idea of knowledge as acquaintance.

The problem of meaningful falsity is one of the most important problems in Plato's theory of knowledge. Earlier mention of a problem about false belief occurs in the Enthydemus (284 - 287) where it is said that the followers of Protagoras made great use of the argument that there is no such thing as false statement or false belief, since these would involve saying or believing nothing. In the Cratylus (429), an appeal is made to the current argument that one cannot say what is not. Late in the Philebus (38 c ff.) in a discussion of the distinction between true and false belief, the mind is likened to a book in which statements are written, giving true belief if the statement corresponds with the facts. The most extensive treatment of the question is in the Theaetetus and the Sophists.

Parmenides rejected the possibility of meaningful falsity. According to him, what can be said and thought of must necessarily exist. But there cannot be existent objects corresponding to a false statement. Unlike Parmenides, Plato accepted the possibility of meaningful falsity. He says that there must be objects corresponding to a false statement also and so he brings in the existence of non-beings.

"...It is extremely difficult to understand how a man say or think that a falsehood really exists and in saying this not be involved in contradiction. - Why? - This statement involves the
bold assumption that not-beings exist, for otherwise falsehood could not come into existence." 9

Another variety of the problem is called by Mrs. Sprague "the argument against contradiction." In this it is said that P and ~P are contradictory statements. But if P and ~P refer to different objects, no contradiction arises. In the same way, if true statements and false statements are used to hit different objects, there will no longer be any contradiction. Plato's approach to the problem of false judgements is criticized by Cornford 10 as "extremely simple, and consequently vague and ambiguous." But this over-simplification and vagueness is actually due to maintaining his axiom that every statement must have some object of which it is about. So he somehow has to show that even a false statement has its objects, the objects it is about.

The basic idea of his solution is, however, that thinking, like speaking, is 'combination'. A false sentence states things other than the existing ones, but this does not mean that there are non-existing entities. It means, on the contrary, that in this case the different parts of the sentence refer to existing entities as well, but they are combined in a wrong way.

The explanation of falsehood is then that in a false sentence one of these existing entities is mistaken for another.
Therefore, ultimately all falsity is nothing but mis-identification. This idea is presented in the *Theaetetus* (187 E - 188 C, 199A - D), but Plato there rejects this idea. It was developed again in the *Sophists*. Here the concept of difference plays an important role in solving the problem of falsehood. Plato replaces non-being by the concept of difference:

'We have not only pointed out that things which are non-being does not exist, but we have even shown what the form or class of not-being is; for we have pointed out that the nature of the other exists and is distributed in small bits throughout all existing things in their relation to one another, and we have ventured to say that each part of the other which is contrasted with being really is exactly not being. Then let not anyone assert that we declare that not-being is the opposite of being, and hence are so rash to say that not-being exists.  

Thus the false statements also have the actually existing objects like the true statements. After having re-interpreted non-being as difference, Plato writes:

"So the next thing is to inquire whether it = the ideas of not-being mingles with opinion and speech. If it does not mingle with them, the necessary result is that all things are true, but if it does, then false opinion and false discourse come into being."
Plato's positive thesis is as follows:

"not-being has been found to pertake of being."\(^\text{13}\)

This view is founded on Plato's discussion of 'the most general kinds' (megista gene) in the Sophistes which makes it a more sophisticated doctrine than the simple-minded theory put forward in the Theaetetus that a mistake is always a misidentification. But in both dialogues, the basic idea is actually the same.

The difficulty of separating the objects of knowledge from those of true belief still remains.

In the Theaetetus (201 A - C), Plato uses an analogy to show the difference between knowledge and true opinion. He shows that epistême is related to true doxa in the same way as the information an eyewitness has is related to that based on rumour or hearsay. But this analogy cannot save Plato's theory of knowledge if knowledge and belief have the same objects. So knowledge and belief must be distinguished in respect of their objects. Hintikka thinks that the only explicit way for Plato to explain the difference between these different objects is to relate the distinction between knowledge and belief to the notions of time, truth, and change.
We have already noted that the basis of this distinction is a difference in their logical behaviour. (*) is valid but (** *) is invalid. Thus the validity of (*) is of great importance in Plato's system. In its wider sense, it includes many practical skills in addition to knowledge of propositions.

In the skills, the validity of the implication (*) will mean that anyone who possesses a genuine skill (epistēme - as 'knowing how') never fails to use it successfully. But in the *Hippias Minor*, Plato shows that there are some skills which do not always produce their usual result. So (*) is not valid for these kinds of 'know-how.' At the end of *Hippias Minor* Plato holds that of the practical skills virtue alone satisfies (*) for it only leads to its usual product. Thus, so far as practical skill or 'know-how' is concerned, knowledge is identical with virtue.

Plato's criteria for distinguishing between knowledge and belief now become clear. Knowledge differs from belief in respect of its logical behaviour, its objects and its sources. Knowledge is of the eternal, unchanging, real Forms or Ideas obtained through reason and it cannot fail to be true. Our belief is, on the other hand, of temporal, changing, apparent objects of the world obtained by our senses and has every possibility of being false.
SECTION II: DESCARTES'S SEARCH FOR CERTAINTY

Like Plato, Descartes also restricts knowledge to what is absolutely certain and rejects the possibility that knowledge can be obtained through sense-experience in so far as we are sometimes deceived by our senses. But his theory differs from that of Plato in some important respects. In the first place, Plato begins with the assumption that there is knowledge, and an important philosophical activity is to study its nature, sources, and its limits. For performing this task, he starts with paradigm cases of indubitable knowledge. Descartes, on the contrary, employed his technique of methodic doubt to reach the status of indubitable truth. Secondly, the importance of certainty in Descartes is different from what it was for Plato. For Plato, knowledge is absolutely certain, for it corresponds to objects which are the ideas or forms in the world of being. Descartes, not having the world of being, depends on some other criterion for separating the sound ideas from unsound ideas which may occur to us. The Cartesian criterion is two-fold: Those ideas are sound, that is, capable of good use in developing knowledge, which are both clear and distinct. Thirdly, Plato distinguishes between knowledge and belief in respect of their different objects. The objects of knowledge are ideas which belong to the real world or the world of being. On the other hand, the objects of belief are sensual objects which are confined to this
apparent phenomenal world. His problem is mainly concerned with the nature of the objects of knowledge; the account of human acquisition of knowledge of that nature is somewhat secondary. In Descartes, the distinction between mind and body is the fundamental epistemological distinction, and the acquisition of knowledge the fundamental epistemological problem. According to him, one need not go beyond oneself to seek for the objects of knowledge, for he can obtain absolutely certain knowledge only of his own clear and distinct ideas. Finally, Plato thinks that our knowledge of objects is direct which is sometimes expressed by saying that knowledge is a sort of mental seeing or touching. But knowledge, as Descartes interpreted it, is representative. We are not directly aware of the objects but only of 'ideas'. Descartes's ideas have the 'representative' capacity as enabling us to have knowledge of what is additional to them.

The points of difference between Plato and Descartes being clear, we will now concentrate on the problems that are central to Descartes' epistemological discussions.

The questions with which Descartes wrestles in the Meditations and in Part I of the Principles are much different from those of the Regulae ad Directionem. In the Regulae, there is no trace of any doctrine of innate ideas; and the related question how the human mind can claim to have knowledge of Divine Existence is left
undiscussed. Here Descartes had not raised the hyperbolical type of doubt and has been content to leave entirely aside the problems which concern knowledge of real existence. In his later writings, he speaks of innate ideas. In the Discourse on Method, Descartes speaks of discovering the first principles or first causes of everything which is or which can be in the world without 'deriving them from any other source than certain germs of truth which exist naturally in our souls.' In Principles of Philosophy, he declares that 'we shall without difficulty set aside all the prejudices of the senses and in this respect rely upon our understanding alone by reflecting carefully, on the ideas implanted therein by nature.'

In the Meditations, Descartes, using the method of universal doubt, reaches three main grounds for certainty. These are: (1) the intution of the necessity of his own existence, stated in the form "cogito ergo sum"; (2) the general rule that all that is clearly and distinctly perceived is true; and (3) the veracity of God.

As a preliminary to the search for absolute certainty, Descartes thinks that it is necessary to doubt all that could be doubted and to treat provisionally as false all that could be doubted. The question that he raises in the First Meditation — are any of one's opinions entirely certain and without doubt? — is a fundamental question in epistemology. He distinguishes between two kinds of opinions that seem to him to be most certain: those received "from the senses or by way of the senses" and opinions
about "the simplest and most general matters". Among the latter, he includes simple mathematical judgements, e.g., "Two plus three equals five" and "A square has four sides". In order to test their certainty, he makes use of a variety of skeptical arguments and, in the course of his "methodic doubt" he reaches the conclusion that opinions of neither sort are entirely certain and indubitable. Since those opinions seemed to him to be the most certain of all his former opinions, he concludes in the First Meditation that there is no one of his former opinions that is not subject to doubt.

Descartes holds that our doubt must first of all be directed to what is learned through the senses. In the First Meditation he says, "I have sometimes experienced that those senses were deceptive, and it is wiser not to trust entirely to anything by which we have once been deceived". It may be that "life is a dream" and that all which appears to be substantial and real is not so in fact. In the First Meditation, Descartes represents himself as at first having the thought that surely it is certain that he is seated by the fire, and then as rejecting this thought in the following remark: "I cannot, however, but remind myself that on many occasions I have in sleep been deceived by similar illusions; and on more careful study of them I see that there are no certain marks distinguishing waking from sleep..."14

G. E. Moore15 criticizes Descartes's argument from the point of view of the possibility of dreaming. His reason for not accepting it
is based partly on his uncertainty as to whether it is "logically possible that I should both be having all the sensory experiences and the memories that I have and yet be dreaming"; for it seems to Moore that the conjunction of his "memories of the immediate past" with his present sensory experiences may be enough to enable him to know with certainty that he is not dreaming. It is remarkable that when Descartes in the Sixth Meditation returns to the problem raised in the First Meditation about the possibility of dreaming and attempts to dispose of his earlier doubts, he, too, refers to memory. In the Sixth Meditation he declares: "Dreams are never connected by memory with all the other events of life, as are the things that happen while we are awake."

Norman Malcolm examines this statement and also certain other assertions that Descartes makes in presenting his argument in the First Meditation: namely that he has "in sleep been deceived by similar illusions" and that "there are no certain marks distinguishing waking from sleep." Concerning the first assertion, Malcolm comments that if by "sleep" Descartes means "sound sleep", he is in error; for a necessary condition of being sound asleep precludes the possibility of having thoughts. It is also a mistake, according to Malcolm, to say that a person cannot tell whether he is awake or sound asleep; and according to Malcolm's argument, it is impossible for a person both to be sound asleep and also to think. But it would also be incorrect to say, as Descartes suggests in the
Sixth Meditation that there is a way of distinguishing waking from sound sleep; and so it seems that Descartes's solution in the Sixth Meditation of the problem raised in the First Meditation is destroyed along with the problem itself.

This doubt does not, however, affect the propositions of mathematics, "For whether I am awake or asleep two and three always make five, and the square can never have more than four sides, and it does not seem possible that truths so clear and apparent can be suspected of any uncertainty."

Yet it is possible, given a metaphysical hypothesis, to doubt even the propositions of mathematics. For in the First Meditation, Descartes supposes that "some evil genius no less powerful than deceitful, has employed his whole energies in deceiving me. In other words, by a voluntary effort I can envisage the possibility of my having been so constituted that I am deceived even in thinking that those propositions are true which inevitably appear to be certain". Hence Descartes was willing to set aside as doubtful or to that provisionally as false not only all propositions concerning the existence and nature of material things but also the principles and demonstrations of those mathematical sciences which had appeared to him to be models of clarity and certainty. In this sense, his doubt was universal, not because he found it possible in fact to doubt every truth without
exception, but in the sense that no proposition, however evident its truth might appear to be, was to be excepted from the test.

Thus Descartes employed methodic doubt with a view to discover whether there was any indubitable truth. And he found this truth in the affirmation Cogito ergo sum, "I think, therefore, I am". I am aware of myself as existing when I think, and so along as I think. Even if I am deceived in all my thoughts, I must yet exist in order to be so deceived. This is the most clear and distinct idea from which philosophical investigations must be started. In the Discourse on Method, Descarts uses the French equivalent je pense, donc je suis, and, in his Replies to Objections appended to the Meditations, he employs a fuller locution; ego cogito, ego sum, sive existo. The term cogito is commonly used, however, to refer to the insight expressed in the Second Meditation and in general to the way in which, according to Descartes, a person attains certainty about his own existence.

In recent discussions, a complex question raised by Descartes's contemporaries has been reopened with a view to a better understanding of the nature of these statements and the certainty that is attached to them. The question is whether the thought of sum as a conclusion deduced from Cogito as a premise. The locutions that he uses in expressing his insight - e.g., "--ergo ..."and"...donc.." seem to show conclusively that he did think of the Cogito as an
Inference. But certain statements of and about the Cogito give an opposite impression. Descartes claims, for instance, that the first principle of his philosophy can be intuited as self-evident, and he clearly denies that *sum* is deduced by attending to *Cogito* in conjunction with a major premise, "Everything that thinks exists."

Because of statements like these, the questions have been raised whether Descartes consistently thought of the *Cogito* as an inference and also in exactly what sense or senses of "inference" he did think of it as an "inference". A. J. Ayer holds that neither necessary statements nor descriptive statements of any sort are immune from doubt, and the only statements that satisfy the cartesian demand for certainty are "degenerate" statements such as those associated with the *Cogito*. Although Ayer implies that Descartes did in fact think of the *Cogito* as an inference, he maintains that "there was......no need for Descartes to derive *'sum' from 'Cogito' ........."

Bernard Williams agrees with Ayer that the statements associated with the *Cogito* are not logical or necessary truths, but he points out a difficulty in attempts like Ayer's to make this point.

On the question whether Descartes thought of the *Cogito* as an inference, Williams introduces a number of important distinctions. He maintains that, from a logical as well as a
Psychological point of view, Descartes is of the opinion that the *Cogito* is not a syllogistic inference. But he also says that Descartes did think of it as an inference of a certain kind.

In his discussion he raises questions about the principle that seems to underlie the *Cogito*, "Everything that thinks exists." One question of great importance from a critical point of view is whether existence is, as Descartes evidently thought, an attribute or a predicate. From considerations, involving this question, Williams is led to ask about the content of *sum* as it appears in the context of the Second Meditation; but he is not prepared to conclude that it is, as for Ayer, "Purely demonstrative" and "degenerate", nor that, in its logical form, Descartes' conclusion is "strictly speaking, incorrect."

On certain points Hintikka's interpretation of the *Cogito* is opposed to Williams'. He admits that some of Descartes' statements of and about the *Cogito* indicate that he did at times think of it as a logical inference. In the sentence, 'I think,' an individual receives an attribute; for a modern logician it is therefore of the form "B (a)". In the sentence 'I am' or 'I exist', this same individual is said to exist. To represent this formally, Hintikka uses the formula (Ex) (x = a). Descartes's dictum therefore seems to be concerned with an implication of the form:

" (1) B (a) (Ex) (x = a)"  

Descartes takes it for granted that he thinks and so he obtains
premise: B(a). If (1) is true, he can use modus ponens to conclude that the thinker exists.

But Hintikka says that if we have a closer look at the system of logic in which (1) can be proved, we soon discover that they are based on important existential presuppositions. They make more or less tacit use of the assumption that all the singular terms, with which we have to deal, really refer to some actually existing individual. In the case of the above formulation, this amounts to the assumption that the term which replaces a in (1) must not be empty. But since the term in question is 'I', this is just another way of saying that 'I exist.' It turns out, therefore, that we in fact decided that the sentence 'I exist' is true when we decided that the sentence 'I think' is of the form B(a). That we were then able to refer (Ex) (x = a) form B(a) is undoubtedly true, but completely beside the point.

Hintikka then thinks of another possibility. He argues on textual grounds and also on points on logic that Descartes, "albeit dimly" or however implicitly, also thought of the Cogito as something other than an inference---that is, as a performance. He realizes that Cogito can also serve to express the existential self-verifiability of the sentence, 'I exist' (or the existential inconsistency of 'I don't exist'). On this interpretation, the peculiarity of the sentence ego sum is of performatory character. According to this reading, Descartes realized to some extent, that the certainty of sum derives, not from being deduced from an
indubitable proposition 'cogito', but from the "existentially inconsistent" or "self-defeating" character of the attempt to think its contrary. Hintikka holds that this interpretation and only this one, makes it possible to understand Descartes's transition from *Cogito ergo sum* to *sum res cogitans*.

By comparing the two interpretations, Hintikka comes to the conclusion that Descartes does not distinguish the two interpretations very clearly. So the problem whether the *Cogito* argument is for him an inference or a performance remains undecided. Hintikka says:

"The two interpretations merge into each other in his writings in a confusing manner".

Having established his own existence as a conscious being, he goes on to consider the existence of God and of the external world. He proves the existence of everything except himself by examining the properties of ideas which he finds within himself. The term 'idea' plays a very important role in Descartes's analysis of knowledge. Throughout his works we find statements about the nature of ideas and about their origin that seems to conflict, and it is difficult to say just what Descartes means by this term. Anthony Kenny points out a number of ambiguities in Descartes's use of the term. The classification of ideas in the *Third Meditation* is provisional and is elsewhere improved upon.
To Mersenne, Descartes wrote in 1641:

"Some ideas are adventitious, such as the idea we commonly have of the sun; others are factitious, in which class we can put the idea which the astronomers construct of the sun by their reasoning; and others are innate, such as the idea of God, Mind, Body, triangle, and in general all those which represent true, immutable and eternal essences." Our clear and distinct ideas of simple natures are innate. So is our knowledge of the universal and certain principles and laws of physics. They cannot be derived from sense-experience, for this gives us particulars, not the universal.

Descartes's most famous example to establish that certain knowledge cannot be satisfactorily justified or explained in terms of sense-experience alone is taken from information about a piece of wax. Though all of the sensed properties of the wax change over a short period of time, it is still possible to know that it is the same piece of wax at both the beginning and end of the interval in which it is considered. He also notes that when we abstract from the colour, shape, etc. of the wax, we are left with the knowledge that the wax is something which is extended and movable. Extension and motion form the basic notion of Cartesian physics and they must be intuited by the mind. These properties are not directly sensed in an object; it involves sense-experience for comparing one object with another. The faculty of comparing one
object with another is called by Descartes imagination and he contrasts it with understanding which is the result of the mind's comprehension of truth through ideas. For Descartes, the more we know about the wax, the more we know that selves (minds) exist, since knowledge is not about sense - experienced object.

In the Third Meditation, Descartes proposes his so called Rule of Truth: "Everything that I very clearly and distinctly perceive is true". By clear is meant clear to intuition, or self-evident. A proposition may be said to be clear if its truth is self-evident, as for instance, the proposition, "a straight line is the shortest possible distance between two points. A proposition is distinct according to Descartes's usage, if its truth cannot be proved by any other proposition. Applying the criterion of clarity, we have first of all to isolate all those objects which, as being clear, i.e., immediately experienced, are reliable as data. Analysing these data, and employing the further criterion, that of distinctness, we isolate those 'natures' which as unconditional are simple, and which as simple are exhaustively known in and by themselves. These simple natures, Descartes is prepared to maintain, are few in number, and yet none the less are intuitively known. It is evident from the above analysis that clear and distinct are two aspects of a single fact. From the psychological point of view, the test of truth of such proposition—if this can be called a test—must be in self-evidence that is,
the proposition must be clear. From the logical point of view, it must be recognised that simple propositions are distinct, that they cannot be inferred from other propositions.

Descartes's analysis of clear and distinct principles, however, has been criticised to be circular. For in view of his initial doubts, he tries to validate the Rule "Everything that I very clearly and distinctly perceive is true" by proving that what he very clearly and distinctly perceives is true. Thus in attempting to validate the Rule he makes use of it and is guilty of begging the question and of circular reasoning. This kind of objection raised by his contemporaries bears the name "Cartesian Circle" and in his Replies to objections, he defended his procedure in the Meditations against the imputation of circularity. Now if the argument is not to be circular, either this proof must depend for its validity on something other than its own clearness and distinctness, or else its clearness and distinctness must differ from that of other perceptions in such a way that it logically justifies itself against all doubts. Clearly, he will never say that we infer the general rule from the particular instructs of clear and distinct perception, still less from one of them - the Cogito ergo sum.

Descartes's argument is as follows: "Although I cannot help believing the truth of what I am actually perceiving clearly
and distinctly, yet, unless I can prove that there does not exist
an all powerful Being who wills to deceive me, I am justified
in doubting the truth of a conclusion which I remember to have
drawn by a series of steps, each of which was clear and distinct,
from clear and distinct premises, provided that I am no longer
attending in detail to the steps of the argument. For instance, I
am certain that the angles of a triangle are equal to two right
angles, so long as I am attending to the geometrical proof, but
when I have ceased to attend to it, however well I remember that
I did perceive its truth most clearly, I may still be in doubt,
unless I have the guarantee of God's veracity. While I was attending
to the proof I was incapable of doubting; now I can doubt, and my
doubt cannot be overthrown unless I can prove that if there be an
all-powerful Being, He cannot deceive me. If I can go further and
prove that there does exist an all-powerful Being who cannot
decieve me, I can no longer have this or any other ground for
doubting that what I clearly and distinctly perceive is true. It
is from God's nature alone that the general rule can be derived, 24

A deceiving demon cannot be all powerful, for the same
grounds which would prove him to be all-powerful, would also prove
that he cannot be a deceiver. Until the existence of a veracious God
is established, we do not know even that extension can exist. The
very possibility of the existence of material things in so far as
they constitute the object of pure mathematics depends on the power
of God. If there were no God and Mathematics depended on the
assumption that extension can exist then Mathematics would be fallacious in virtue of that assumption. So the veracity of God is necessary also for providing the validity of Mathematics whose axioms, according to Descartes, are clear and distinct.

The objection put to Descartes by his critics was that he was arguing in a circle. Their formulation of it presupposes, in the first place, that Descartes's argument in the Third Meditation involving the use of the general rule as a ground from which the truth of each separate perception is inferred, is his last word; and secondly, that consequently the veracity of God is derived from the general rule and it is not a self-evident intuition from which the general rule may itself be derived.

A. K Stout and Harry G. Frank Furt consider the problems relating to the alleged cartesian circle but the results obtained are different. These questions are also attended to in Brehier's "The creation of the Eternal Truths" and a highly original solution is suggested. The above three papers as a group offer three major answers to the question why Descartes did not think that his procedure in the Meditations was, as his critics claimed, circular. Stout presents what has been called the "development hypothesis". His contention is that Descartes, having intended to question and then to validate clear and distinct perceptions in the Meditations, "imperceptibly transferred the doubt from clearness
and distinctness to memory when he was faced with objections. According to this interpretation, what is questioned and validated on Descartes's amended view is the accuracy of memory impressions of having clearly and distinctly perceived something and not clear and distinct perceptions themselves, in particular, not those perceptions used to establish the existence of a "nondeceptive God" and the reliability of memory. Brehier maintains that the doubts that Descartes expresses and attempts to overcome about "the simplest and most general matters" are not about the reliability of memory nor about the present truth of what is intuited. Rather, the question with which he is concerned is whether what is intuited at a certain time is true at all times or is an "eternal truth". To be assured of this, Descartes needs to know that the essences that he intuits are permanent and not subject to change from time to time by a deceitful demon; and Brehier suggests in his paper that Descartes can be assured of this without at any rate flagrantly begging the question. Frankfurt in his paper attributes to Descartes an answer to the skeptic's doubts about reason similar to the one that we find in Spinoza. He says that Descartes's "reasoning in the Meditations is designed not so much to prove that what is intuited is true as to show that there are no reasonable grounds for doubting this and that Descartes can do this without being guilty of the kind of circular reasoning with which he has often been charged. Willis Doney points out that Spinoza, although his answer to the skeptic is like the one that Frankfurt
attributes to Descartes, does not attribute an answer of this kind to Descartes. Doney also finds it difficult to reconcile Frankfurt's interpretation with Descartes's claim that the cogito is certain prior to, and independently of, his certainty of the existence of God. In a recent paper about the Cogito, Frankfurt in effect tries to answer this objection by maintaining that, in the Second Meditation, Descartes is not fact concerned to establish that 'sum' is true.

From the above discussion it seems that Descartes's analysis of clear and distinct ideas is not very satisfactory. It involves a circulaity in his reasoning which cannot be properly solved by the veracity of God. There are also problems about the use of the rule "Everything that I very clearly and distinctly perceive is true" as a test or a criterion of knowledge, as Descartes seems at times to have thought of it. Anthony Keeny and Alan Gewirth deal with the important question: "How, according to the definitions of clarity and distinctness in the Principles, can an idea fail to be clear and distinct?" Kenny suggests that Descartes cannot in the end give a consistent and entirely satisfactory answer to this question. But Gewirth tries to defend Descartes's positions. He distinguishes between 'interpretive content' and 'direct content' of an idea and attributes to Descartes the 'interpretive content'. According to this interpretation, an idea is clear and distinct if,
and only if, there is 'equality' between direct content and interpretive content. There are further difficulties when the question is asked whether, in order to know that a proposition is true, a person must not only clearly and distinctly perceive it but also know in addition that his state is one of clear and distinct perception.

Overall, Descartes's analysis of knowledge is not very fruitful for it cannot explain clearly how the objects are known. According to him, there is no direct communication between the knower and the objects of knowledge. Our clear and distinct ideas are the representatives of objects. But how can I know that the ideas correspond to objects? In other words, how can I know the ideas are true? The answer is - by their clearness and distinctness. This argument is circular. Descartes tries to solve it by the veracity of God. But it does not help him very much to solve the problem. So the communication gap between the subject and the object of knowledge is unbridgable within Descartes's system.

SECTION-III : KANT'S THEORY OF SYNTHETIC A PRIORI

We have seen that to Plato and Descartes, reason is the only source of acquiring knowledge which is absolutely certain and that what is obtained through senses cannot attain the status of knowledge. According to both of them, knowledge is a priori.
In the Critique of pure reason, Kant distinguishes between analytic and synthetic judgements. In an analytic judgement, the predicate \( B \) belongs to the subject \( A \), as something which is (covertly) contained in this concept \( A \); in a synthetic judgement, the predicate \( B \) lies entirely outside the concept of the subject, \( A \), although it does indeed stand in connection with it. The former adds nothing through the predicate to the concept of the subject but merely breaks it up into those constituent concepts that have all along been thought in it, although confusedly, and is also called by Kant explicative. The latter, on the other hand, adds to the concept of the subject, a predicate which has not been in any wise thought in it, and which no analysis could possibly extract from it; and is therefore entitled ampliative.

According to philosophers before Kant, a priori judgements are bound to be analytic and synthetic judgements must be a posteriori, i.e., must be based on experience. Kant, for the first time, thinks of the possibility of synthetic a priori judgements. He says that knowledge must be both synthetic and a priori, that is to say, it must give us some novelty and at the same time be universally and necessarily valid.

So Kant's problem is "How are synthetic a priori judgements possible?" This problem has been sub-divided into three specific problems. Plato's theory was not enlightened by the advancement of physics. So he had before him two questions:

(1) How is pure mathematics possible?

and

(2) How is Metaphysics possible?
He never conceived of a priori knowledge in physics. In the modern period, the old tradition has been completely broken by the creation of physics as a science.

"When Galileo caused balls, the weights of which he had himself previously determined, to roll down an inclined plane, when Torricelli made the air carry a weight which he had calculated beforehand to be equal to that of definite volume of water; or in the more recent times, when Stahl changed metals into oxide and oxides back into metal, by withdrawing something and then restoring it, a light broke upon all students of nature. They learned that reason has insight only into that which it provides after a plan of its own, and that it must not allow itself to be kept, as it were, in nature's leading - strings but must itself show the very way with principles of judgement based upon fixed laws, constraining nature to give answer to questions of reason's own determining".

Thus in Kant's time, physics has established itself as giving us universal and necessary laws. So instead of Plato's two questions, Kant asks three questions: -

1) How is pure mathematics possible? i.e., How are synthetic a priori judgements in mathematics possible?

2) How is pure science of nature possible? i.e., How are synthetic a priori judgements in (pure) physics possible?
3) How is metaphysics possible? i.e., How are synthetic a priori judgements in metaphysics possible?

In the first two cases, possibility means possibility of explanation, for mathematics and physics are previously established sciences. The words "How possible?" in these two cases mean "in what manner possible?" But the word 'How' in the third question means whether, i.e., whether metaphysics is possible at all. Plato, on the contrary, admitted the possibility of metaphysics.

In the second edition of the Critique, the third question is further subdivided into two questions. So there are actually four questions before Kant.

1) How is pure Mathematics possible?
2) How is a science of nature possible?
3) How is metaphysics as a natural disposition possible?
4) How is metaphysics as a science possible?

Kant says that Metaphysics as a natural disposition is quite possible. But as a science it is not possible for pure reason without the aid of sensibility can know nothing.

According to both Plato and Kant, knowledge must be
universal and necessary for universality and necessity are the marks of a priori knowledge. Plato holds that the objects of such knowledge must be real objects. Those objects are called by Plato Ideas or Forms. But the objects of the phenomenal world are mere appearances. We do not know them to be universally and necessarily true. They are objects of belief, or opinion. Ideas or Forms cannot be known by sensation, nor by true belief. These can be known only by Pure Reason. Thus in Plato's philosophy, we find a distinction between appearance and reality. Kant draws a similar distinction in his Critique between what he calls Phenomena and noumena.

In Book II, Chapter 3 of the Critique, Kant clearly brings out this distinction.

"Appearances, so far as they are thought as objects according to the unity of the categories, are called Phenomena. But if I postulate things which are mere objects of understanding, and which, nevertheless, can be given as such to an intuition, although not to one that is sensible - given therefore, Coram intuitu intellectuali - such things would be entitled noumena (intelligibilia).

Kant suggests two different meanings of "noumenon". In the negative sense, it means "a thing so far as it is not an object of our sensible intuition". It's concept is derived by making
complete abstraction from our sensuous intuitions under the forms of time and space. In the positive sense, 'noumenon' means "an object of a non-sensible intuition". We are then not merely making abstraction from our own sensuous intuitions. We are supposing that there is another kind of intuition (an intellectual intuition through which the noumenon can be known), although we neither possess such an intuition nor have any insight into the possibility of such an intuition. But 'noumenon' in the positive sense is quite inadmissible. Kant says: "The Concept of a noumenon is a limiting concept, the function of which is to curb the pretensions of sensibility; and it is therefore only of negative employment. At the same time it is no arbitrary invention; it is bound up with the limitation of sensibility, though it cannot affirm anything positive beyond the field of sensibility".

By saying that the concept of a noumenon is a limiting concept, Kant wants to say that the concept of a noumenon is what lies beyond the limits of our sensibility. But he does not doubt that something which is not an object of sensuous intuition lies beyond these limits - otherwise there would be no sense in talking about limits at all. All he is denying is that we can have any positive knowledge of such things - in themselves.

Thus both Plato and Kant deny the role of our senses in knowing reality. In addition, Kant says that noumena or things -
in-themselves cannot be known by Pure Reason, for nothing can be known by Reason alone. The categories as concepts of the forms of judgement are pure categories. As such they are 'empty', in the sense that their content is the empty form of thought, or form of judgement, through which no determinate object is known. They do relate to an object in general; and since they are forms of discursive or conceptual thought, they await an object to be given in some sort of sensuous intuition - which Kant calls 'intuition in general'. For human beings, however, they must be related to human intuition, which is given under the form of time. It is only when translated into terms of time, that the categories can be said to have meaning, that is, to have as their content the necessary and universal characteristics of objects of human experience, and not merely empty forms of judgement. As so translated into terms of time they are no longer pure categories, but schematised categories. The schemata of pure concepts of understanding are thus the sole conditions under which these concepts obtain relation to objects and so possess significance. Therefore, the categories have no other possible employment than the empirical. Kant says:

"The categories, therefore, without schemata, are merely functions of the understanding for concepts; and represent no object. This (objective) meaning they acquire from sensibility, which realises the understanding in the very process of restricting it."

Kant admits that it is the nature of reason to employ the
categories beyond what is given in intuition. But even these metaphysical questions are expressions of the essence of reason. They are none the less illegitimate. For our categories can be objectively valid in so far they are applied to objects of human sensibility. This is why Kant rejected the possibility of metaphysics as a transcendental science. But Plato admits the possibility of metaphysics. To him, objects transcending sense-experience can be known by Pure reason.

The more important respect in which Kant differs from Plato is that the former ascribes universality and necessity to the forms of human sensibility. For Plato, universality and necessity are reserved for knowledge of Ideas, i.e., knowledge of real objects only. Kant shows, on the other hand, that even in our experience there are a priori forms producing knowledge which is universal and necessary.

In section I of the Introduction of the Critique, he says: "Now we find, which is especially not worthy that even into our experiences there enter modes of knowledge which must have their origin a priori, and which perhaps serve only to give coherence to our sense-representation. For if we eliminate from our experiences everything which belongs to the senses, there still remain certain original concepts and certain concepts and certain judgements derived from them, which must have arisen completely
a priori, independently of experience, in as much as they enable us to say, or at least lead us to believe that we can say, in regard to the objects which appear to the senses, more than mere experience would teach—giving to assertions true universality and strict necessity, such as mere empirical knowledge cannot supply."

Kant shows that such universal and necessary knowledge is possible in physics which also deals with appearance.

In the Transcendental Aesthetic he proves that space and time are the a priori (i.e. universal and necessary) forms of human intuition. They are intuition (by intuition, Kant means that which is immediately perceived by experience) on the one hand and a priori on the other. So Kant calls them Pure Intuitions. Pure intuition is pure or a priori, because it eliminates the empirical element of sense, and contains only the necessary and universal relations in which sensible things appear. Now Space and Time are not only necessary and universal conditions of experience. They have in themselves, even when abstracted from experience, a certain necessity and universality; for in knowing them we know, apart from experience, what all their parts must be. Our intuition of them is pure, in as much as it is intuition of a whole whose parts can be known independently of experience. Pure intuition is intuition and not conception, because it involves an immediate cognitive
relation to an individual object - there is only one space and one time.

In the Metaphysical Exposition of space and time, Kant proves directly that space and time are a priori intuition. He uses four arguments for space and four parallel arguments for time. The first two arguments show that space and time are not empirical concepts but a priori representation. The last two arguments prove that space and time are not discursive or general concept but intuition.

In the Transcendental Exposition of space, Kant proves by an indirect argument that space is an a priori intuition. For otherwise we cannot establish/synthetic a priori character of geometrical arguments.

Similarly, the Transcendental Exposition of Time proves that time is an a priori intuition. For otherwise such synthetic a priori propositions like 'time has only one dimension:' would not be intelligible. Moreover, apart from time as an a priori intuition, we could not understand change.

After showing that space and time are a priori intuitions, Kant concludes that they are only forms of human sensibility and therefore only subjectively or empirically real but has no transcendental reality.
Thus Kant proves that even in human sensibility there are forms which are universally and necessarily true. Plato says that what we get from sense experiences are always changing and so it cannot be called knowledge, for knowledge must be eternal and unchanging. Kant shows that space and time as a priori forms of intuition are eternal and unchanging. Objects and events in space and time change but space and time themselves do not change. They are universally and necessarily true. Thus Plato's contention is proved to be wrong by Kant.

Kant's categories of the understanding are the a priori forms of judgement; they are not abstracted from experience. Rather experience becomes possible only if they correspond to categories. From this point of view, categories as purely mental ideas can be compared to Descarte's innate ideas which like the categories have their origin in the mind. Descartes contends that we can know directly only the ideas which are clear and distinct but not the objects. These ideas are passive, they cannot construct objects. But Kant's categories are active, they construct objects.

Kant characterises understanding as the law-giver of nature.

He says:—

"Pure understanding is thus in the categories the law of
the synthetic unity of all appearances, and thereby first and originally makes experience, as regards its form possible."

In section IV (Transcendental deduction (B)) he says:

"The pure intuitions (receptivity) and the pure concepts of understanding are elements of knowledge, and both are found in us a priori. There are only two ways in which we can account for a necessary agreement of experience with the concepts of objects: either experience makes these concepts possible or these concepts make experience possible. The former supposition does not hold in respect of the categories (nor affirm of pure sensible intuition); for since they are a priori concepts, and therefore independent of experience, the ascription to them of an empirical origin would be a sort of generation acquivoca. There remains therefore, only the second supposition—namely, that the categories contain, on the side of the understanding, the grounds of the possibility of all experience in general."

Thus Kant shows that unlike Descartes's passive innate ideas, the categories make the objects possible and this theory alone, if Kant is right, can explain the possibility of a priori ideas. The suggestion Kant puts forward is this. Although an idea cannot make its object real, it might nevertheless determine the a priori character of the object as known. An idea will necessarily determine the character of all objects without exception, if only
this idea it is possible for anything to be known by us as an object. This is the suggestion upon which the whole of Kant's philosophy rests.

Descartes's ideas are the representatives of objects but he cannot explain how the ideas correspond to objects. But Kant gives an explanation of how the pure categories are applied to objects of intuition. To him, it is an important question as to how pure concepts of understanding are applicable to empirical intuitions. In the chapter on The Schematism of the Pure concepts of understanding, he gives the answer.

"Obviously there must be some third thing, which is homogeneous on the one hand with the category, and on the other hand with the appearance, and which thus makes the application of the former to the latter possible. This mediating representation must be pure, that is void of all empirical content, and yet at the same time, while it must in one respect be intellectual, it must in another be sensible. Such a representation is called by Kant transcendental schema.

The concept of understanding contains pure synthetic unity of the manifold in general. Time as the formal condition of the manifold of inner sense and therefore of the connection of all representations, contains an a priori manifold in pure intuition.
A transcendental determination of Time is, on the one hand, homogeneous with the categories which constitutes its unity, in that it is universal and necessary. On the other, it is also homogeneous with appearance, for time is contained in every empirical representation of the manifold. From this Kant concludes:

"Thus an application of the category to appearances becomes possible by means of the transcendental determination of time, which as the schema of the concepts of understanding, mediates the subsumption of the appearances under the category."

Thus the pure categories are applied to the objects of intuition through the mediation of time which is an a priori form of intuition.

David Hume tries to show that in our experience we do not perceive anything universal and permanent. We perceive only discrete particular objects and events which are always changing. No impression is constant and invariable. Each of them is distinguishable from the other and may exist separately. Even in our inner reflection, we do not find any permanent entity.

Hume says:

"For my part, when I enter most intimately into what I call myself, I always stumble on some particular perception or
other, of heat or cold, light or shade, love or hatred, pain or pleasure. I never can catch myself at any time without perception, and never can observe anything but the perception."

From this, he concludes that the whole mankind are "nothing but a bundle or collection of different perceptions, which succeed each other with an inconceivable rapidity, and are in a perpetual flux and movement."

Hume says that mind is constituted by these succeeding perceptions only and nothing else.

But Kant shows that the very idea of succession presupposes time as a pure intuition.

In the Metaphysical Exposition of Time, Kant says:

"-----neither coexistence nor succession would ever come within our perception, if the representation of time were not presupposed as underlying them a priori. Only on the presupposition of time can we represent to ourselves a number of things as existing at one and the same time (simultaneously) or at different times (successively)."

In the Transcendental Exposition of time, Kant shows that
without presupposing time as an a priori intuition, we could have no understanding of change. The understanding of change involves the attribution of contradictory predicates to the same subject and this for thinking by itself is impossible. It becomes possible only when we realise that contradictory predicates can belong to the same thing at different times. Time is therefore the necessary and universal condition of apprehending change and motion.

Thus Kant proves that Hume's view of fleeting perceptions also requires the idea of time as the Universal and Necessary condition of succession and change. It is one and the same time in which succession and change take place. Time as an a priori form of intuition is, therefore, eternal and unchanging.

In Kant's theory we find a reconciliation of sense and reason. The novelty of Kant is that even in our sensibility, he discovers universal and necessary forms. His categories are not passive like Descartes's innate ideas but are active in constructing objects through the forms of human sensibility. Kant's view that the objects conform to our understanding instead of understanding conforming to our objects is a reversal of philosophical opinion which may be compared to the Copernican revolution in astronomy. It is an essential part of Kant's doctrine that both sensibility and understanding, or Intuition and Conception, are necessary for knowledge of objects. Through sense objects are given,
and through understanding they are thought. Thought without the content of intuition are empty and intuitions without the concepts of thought are blind. In the Transcendental Logic he says:

"These two powers or capacities cannot exchange their functions. The understanding can intuit nothing, the senses can think nothing. Only through their union can knowledge arise."

In Book II, chapter 3 of the Critique (chapter on Phenomena and Noumena) Kant says the same thing in a different manner.

"Understanding and sensibility, with us, can determine objects only when they are employed in conjunction. When we separate them, we have intuitions without concepts, or concepts without intuitions—in both cases, representations which are not in a position to apply to any determinate object."

SECTION-IV : THE ANALYTIC MOVEMENT

After the brief survey of the history of epistemological discussions, our next task is to show the necessity of introducing analytic method in solving the problems of knowledge, as well as other philosophical problems, instead of the traditional method. 'Analysis' is a Greek word, meaning the resolution of a complex whole into its parts. Analysis has gone some way towards producing a revolution in philosophy and our age can be characterized as the
"Age of Analysis" in Philosophy. The centre of this new movement was England, and more particularly, Cambridge, and its leaders were Moore, Russell, and Wittgenstein.

However, the use of the method of analysis in philosophy is by no means a recent innovation. This method had been used by both the Greeks and the ancient Hindu Philosophers. Russell and Wittgenstein pointed out that one phase of their joint efforts may be compared to Plato's work in the *Theaetetus*, and other phases of Russell's work may be compared to Plato's analysis in the *Sophists*. A reflection of Leibniz's notion of *mathesis universalis* (a universal formal language) can be found in the joint attempt of Russell and the logical positivists to construct an artificial language comprehensive enough to contain both science and philosophy. Russell is an empiricist and he stands in the direct line of descent from Locke and Hume. He also owes much to the idealists whose philosophy stems from Kant. Other analysts also have noted similarities in style and method between their work and that of Aristotle, or the work of Locke, Berkeley, and Hume. Indeed, it is to these latter, and especially to Hume, that the analysts owe a great debt, not only in style and method, but of outlook as well. So there is a connection between the analytic philosophy and the traditional philosophy.

Although the main thesis of the philosophy today are essentially reaffirmations of what had been stated long ago, still...
there is a divergence between them. It cannot be denied that the philosophy of analysis in its main positions was a return to Hume. But these positions, as repeated by the analysts, were given a fresh significance by the many changes in philosophy, natural science, logic and mathematics, which had taken place since Hume wrote. Indeed, it was these intervening developments far more than any influence from Hume that produced the new philosophy. For example, although logical empiricism is essentially a return to Hume in respect of its empiricism, it employs in its logic a theory and a technique beyond anything at Hume's command.

J. O. Urmson enumerates three stages of the history of analytic philosophy: (1) Logical atomism, (2) Logical positivism and the downfall of logical atomism, (3) The beginnings of the contemporary philosophy. Borrowing this idea from Urmson, other commentators divide it into five stages.

The first stage is called early realism and Moore and Russell were the co-founders of the analytic movement. Their task was to dig out the meaning of a philosophic proposition by reformulating it so as to make it plain. They challenged decisively the prominent philosophical views of the period and took the first giant steps towards a new conception of philosophy. They
were in fact reacting against both the monism of the idealists and the subjectivism of contemporary empiricism. Their writings prepare the ground for the next, more extreme phase of revolution.

The second stage is called logical atomism and is associated with the work of Russell from 1914 - 19, and the early work of Wittgenstein. Logical atomists try to construct a language whose syntax mirrored the relations of the basic entities of which the world was made up. Such a language describes the structure of the world by mirroring it. Russell's view concerning Logical atomism can be found in 'The Problems of Philosophy' (1912) and in the lectures on Logical atomism (1918 - 19). Wittgenstein in his well-known book Tractatus Logico Philosophicus argued that the totality of true propositions constitutes the whole of natural science. By specifying the limits of language, Philosophy sets limits to the sphere of possible knowledge. Whether a proposition is true or false can be determined only by comparing it with reality. As metaphysical statements are not empirically verifiable, they are meaningless.

The third stage is called Logical Positivism and it, too, is concerned with formal languages. It started its journey roughly from the beginings of the Vienna Circle (1922). Logical Positivism is a philosophical movement characterized by a number of interrelated and radical doctrines. Among these, the most important doctrines are the verifiability theory of meaning, the rejection of
metaphysics, the unity of science, the conception of language as a
calculus, the conventional interpretation of logic and mathematics,
and the view that legitimate philosophy is identical with logical
analysis of a special kind. The principal exponents of the logical
positivist movement were Moriz Schlick, Rudolf Carnap and A. J.
Ayer. Ayer thinks that the real function of Philosophy is analysis
and philosophical analysis is linguistic. Thus he conjoins Conti-
nental Logical positivism and British philosophical analysis.
Carnap gives a new status to the problem of meaning. Meaning,
according to him, is not a semantical concept but a syntactical or
formal one. The theory of meaning that invents a logical form of
reality corresponding to the logical form of proposition has
resulted only in intolerable metaphysics of 'atomic facts',
'simple objects', 'elements' and the like. The question of meaning
is therefore a question of the logical rules of syntax. As
philosophy is a study of syntax, it is not identical with factual
science and is, at the same time, more than mathematical logic.

The fourth stage consists of analysis in ordinary language
and is a repudiation, direct or implicit, of the second and the
third stage. It was practised by Ryle and later Wittgenstein.

'Ordinary' means stock or standard. Such common words as
'know', 'cause', and 'ought' etc. are put to a far larger number
of uses, but these are mainly variations on a still commoner
standard use. Ryle holds that the use of some words of ordinary language are always confusing. And the sort of confusion that language imposes upon unsuspecting philosophers is, according to him, the 'category Mistake' or a logical type mistake. He defines a 'category' as a logical type. So to confuse one category for another is a 'category Mistake.' In his treatment of 'categories' Ryle proceeds two steps further along the lines of march that runs from Aristotle through Kant. First, instead of Aristotle's ten categories and Kant's twelve, he holds that there are an indefinite number and secondly, he holds that terms appoint their relations with a complexity and firmness that Kant himself scarcely guessed at. The logical form of a proposition depends on the types of factor that make it up, so that if one of these types is changed, the form of the proposition is altered and its logical behaviour - its range of implications, compatibilities and hostilities - will also change throughout.

Ryle distinguishes between two types of theory of knowledge. The first type is the systematic study of the structures of built theories which he calls 'The logic of science' or metaphorically 'The Grammar of Science'. The second type stands for the theory of learning, discovery and invention.

The traditional epistemology belongs to the first type and the modern epistemology belongs to the second type. Ryle says:--

"..........the great epistemologists, Locke, Hume and Kant, were in the main advancing the Grammar or Science, when they thought
that they were discussing parts of the occult life-story of persons acquiring knowledge. They were discussing the credentials of sorts of theories, but they were doing this in para-physiological allegories. The recommended restoration of the trade-names of traditional epistemology to their proper place in the anatomy of built theories would have a salutary influence upon our theories about minds.  

Wittgenstein in his *Philosophical Investigations* criticized his own view presented in the *Tractatus*. In place of the dogmatic "the meaning of a statement is the method of its verification", we are now advised—"Don't ask for the meaning, ask for the use", for 'use' covers all kinds of meaning and told that "every statement has its own logic."

Wittgenstein now thinks that philosophers made the mistake of trying to model their activities on those of scientists and that is why they had tried to lay down strict definitions and to discover true, even if unusually, abstract universal propositions. In Plato's Dialogue *Theaetetus*, we find that Socrates asks Theaetetus to make an attempt to state the essence of knowledge by offering a strict definition. But such a strict definition, Wittgenstein argues, is neither possible nor desirable. We have to get rid of the tangle of puzzles of the traditional theory of knowledge and for this we have
to examine in detail the concrete cases in which people actually use the word 'knowledge'—the role that the word plays in ordinary, everyday language, not in a purified, super-refined language.

The fifth stage also deals with what we ordinarily say. But now the concern is not necessarily with dissolving, untangling problems, but with the discovery of language in its own right. This stage is dominated by Austin's linguistic philosophy. "Other Minds", "How to talk", "A plea for Excuses" are the classical examples of Austin's writings. In the essay on "Other Minds", Austin investigates the concept of knowledge by studying the various correct uses of the word 'know'.

In the course of this century, philosophical analysis has increasingly turned from the material to formal mode. In both their metaphysical pronouncements and their epistemological dissertations, analytical philosophers have been increasingly moving away from talking in terms of description, dissection, or analysis of extra-linguistic ideas, concepts, or meanings, and more and more tending to talk in terms of use of words, the "grammar" of our language, or the rules governing our use of linguistic expressions. Besides, a tendency has been developed to explain words and definitions in terms of symbols, model sets and systems. The motive is obviously the attainment of more perfect results by reducing the complexity of using troublesome propositions.

Thus a sort of revolution has occurred in philosophy by the
introduction of the linguistic method. Instead of giving an abstract conception of the nature of knowledge, the linguistic philosophers lay emphasis on the discussion of the various uses of the verb 'know.' The modern epistemologists do not ask "what does the word 'knowledge' stand for?" but "what must be the case if it is true that 'X knows that P'? It is convenient for us to proceed by formulating some necessary and sufficient conditions for such expressions as 'X knows that P.' It is said that 'X knows that P' if and only if P is true, X believes that P and X is justified in believing that P. These conditions can be tested by seeing whether it is ever possible correctly to say 'X knows that P' when such conditions do not hold. So the epistemologists of this century have adopted the technique of examining the necessary and sufficient conditions of knowledge by examining possible counter-examples. There is no serious problem regarding the truth condition and the belief condition. The fundamental problem of epistemology today is to spell out the justification condition and to get them right. Explaining how knowledge is possible amounts to nothing more than describing the justification conditions for statements in the different areas of knowledge. The problem is not entirely new, it started from Plato. But while Plato declared that "justified true belief" can never reach the status of knowledge and also that the realm of knowledge is restricted to what is eternal and unchanging and gained through reason, the modern epistemologists investigate whether we can provide complete justification for our knowledge of worldly objects.
NOTES

1. Timaeus 510.


3. Ibid, P - 11.


6. K. J. J. Hintikka: knowledge and the known, P - 16.


9. Sophists 236 - 237 A.


11. Sophists 258 D - E.

12. Ibid, 260 B - C.

13. Ibid, 260 D.


17. Meditation.

18. A. J. Ayer: The Problem of knowledge (Chapter 2, section (iii) entitled 'I think, therefore, I am').


21. Ibid, P.

22. Ibid, P.


30. Anthony Kenny: "Descartes on Ideas" (Published in Descartes: a collection of critical essays).


32. From preface to the second edition of the Critique of Pure Reason, (Translated by N. K. Smith).

