

SOME CENTRAL PROBLEMS IN PHILOSOPHICAL LOGIC

By

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DEPARTMENT OF PHILOSOPHY

THESIS

SUBMITTED IN FULFILMENT OF THE
REQUIREMENT OF THE DEGREE OF
DOCTOR OF PHILOSOPHY



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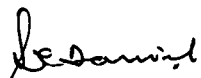
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In habit and character Joyanti Paul is a fit and proper person for the Degree of Doctor of Philosophy.

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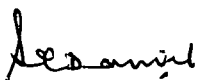
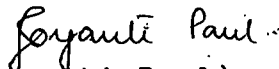
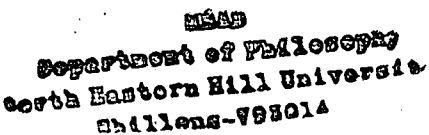
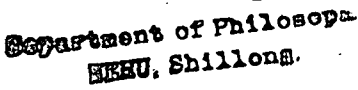
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I, JOYANTI PAUL, hereby declare that the subject matter of this thesis is the record of work done by me, that the contents of this thesis did not form basis of the award of any previous degree to me or to the best of my knowledge to anybody else, and that the thesis has not been submitted by me for any research degree in any other University/Institute.

This is being submitted to the North-Eastern Hill University for the Degree of Doctor of Philosophy in Philosophy.

		
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ACKNOWLEDGEMENTS

It is my unique privilege to have had Dr. S.C. Daniel, Reader, Department of Philosophy, NEHU, as my Supervisor. His inspiration, guidance and goodwill have always been with me, throughout the period in which I was engaged in the writing of the thesis. I remain indebted to him for his invaluable suggestions which went a long way in shaping the thesis.

I owe very special debt to Prof. M.M. Agrawal who encouraged me at every stage, also took a keen interest in my work and made helpful suggestions.

I would also like to record my gratitude to my teacher Professor N. Malla, Head of the Department of Philosophy, NEHU, for his help and goodwill.

I would fail in my duty if I do not express my deep sense of gratitude to other teachers of the Department of Philosophy, NEHU, I owe to them in more ways than one.

My affectionate thanks to my brother Shri Ajit Paul and sister-in-law Mrs. Banani Paul, without whose support and cheerfully given help, this work would not have seen

the light of day, and to my mother, for her tremendous encouragement and for having made it possible for me to undertake this work.

I am grateful to Mr. Joseph F. Khongbuh for typing out the manuscript with utmost care.

And last but not the least I thank my friends and well-wishers who extended their ready helping hands whenever I turned to them.

SHILLONG

Joyanti Paul
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THE 21 JULY 1997.

CONTENTS

	Pages
Acknowledgements	i-ii
CHAPTER I INTRODUCTION	1-62
CHAPTER II UNIVERSAL AND PARTICULAR	63-126
CHAPTER III REFERENCE AND PREDICATION	127-196
CHAPTER IV SUBJECT AND PREDICATE	197-269
CHAPTER V CONCLUSION	270-308
BIBLIOGRAPHY	309-315

CHAPTER I

INTRODUCTION

INTRODUCTION

My thesis is entitled "Some Central Problems in Philosophical Logic". It consists of five chapters, namely (1) Introduction; (2) Universal and Particular; (3) Reference and Predication; (4) Subject and Predicate; and (5) Conclusion.

In the first chapter entitled, "Introduction", I would like to give a detailed philosophical survey of some of the important problems of philosophy in general and philosophical logic in particular. These problems are (1) Universal and Particular; (2) Reference and Predication; and (3) Subject and Predicate.

In the Introductory chapter, I intend to give an introduction of philosophical logic, I want to show that the scope of philosophical logic is much wider than that of any other kind of logic. To show that the scope of philosophical logic is much wider, I think it is necessary on my part to discuss the different kinds of logic by way of introducing them.

Logic is the general theory of the proposition. It

has two parts namely, the formal part and philosophical part. The formal part is not concerned with the entire field of deducibility relations. It is concerned only with members of a group which collectively exhibit certain structural or formal features. These formal features are familiar to all the students of logic. The features with which the student is most concerned is logical constants on the one hand, and sentence-letters, predicate letters and variables on the other.

Wittgenstein, in the Tractatus seems to suggest that the whole of formal logic - or at least the calculus of truth function and predicate calculus is really implicit in the single idea of a proposition in general. In other words, he seems to be saying that the single idea of proposition in general is in principle possible by pure reflection on this idea alone. This suggestion of Wittgenstein does not belong to formal logic. In fact, it belongs to philosophical logic, somehow, the important questions of philosophical logic are as follows - what is really distinctive feature of forms and constant of logic and what general explanatory account can be given of a logical particle?

Philosophical logic also asks the following fundamental questions, - what is a proposition? What is meant

by saying that a proposition is true? What is the nature of that relation which holds between propositions when one follows from, or deducible from another?

These questions make the philosopher ask about the nature and functioning of language and of linguistic expression of many types. Many questions regarding modes of actual discourse, theory of meaning, the nature and condition of linguistic communication, come within the scope of philosophical logic.

Aristotle holds an important position in the history of philosophy. His importance can never be over emphasized. Many hold that he is one of the three great philosophers of all time, namely Aristotle, Kant, and Wittgenstein. The reason is very simple, these three philosophers are path breakers of all other philosophers who are great extent or less extent echo the original thoughts of these three philosophers.

Aristotle occupies a special place in the field of logic. His Treatise of Logic shows his original and inventive mind, I would go to the extreme of claiming that the modern logic whether be it symbolic logic or predicate logic, or propositional logic or Modal logic or Mathematical logic, is nothing but a development or disagreement of

Aristotle's logic. Though the syllogistic is the most brilliant part of Aristotle's achievement, as a logician, but he has contributed enormously towards the development of reasoning argument and language. His views on definition, on demonstration, on dialectical argument, on necessity and possibility on predication are omnipresent in his Treatise on Logic. Thus, Aristotle's contributions to logic are so important that any student of logic cannot afford to ignore them. Therefore, I have given a prominent place to Aristotelian logic in my thesis.

Aristotle first uses logic in detail in his work Prior Analytics, but it reaches its present form through changes after Aristotle's death. Before Aristotle, logic was used by many other philosophers, but Aristotle is the first who used it in detail and made it a special discipline. Aristotle's formulation of logic has dominated to a great extent in the thought of later times. But there have been two major revolts against the Aristotelian logic in modern times. The first is inductive logic, and the second is mathematical logic. The first one, inductive logic, is led by Francis Bacon, and the second is carried out by the mathematical logicians. The function of logic is to describe the method of attaining knowledge. Aristotle considers logic as an important instrument for the

acquisition of genuine knowledge. Aristotle holds that one should not directly proceed to the study of philosophy, until he has familiarised himself with the principle of logical thought. According to him, logic is the preliminary of all special inquiries. Aristotle, holds that logic is an instrument of scientific research which should be applied in every sphere of knowledge.

The theme of Aristotelian logic is the analysis of the form and content of thought, through which we reach knowledge. It is the science of correct thinking. The Aristotelian logic defines with precision, the prerequisite of genuine scientific knowledge.

Aristotle's most important work in logic is the doctrine of the syllogism. He is the first to discover all the fundamental rules in syllogism, from which all thoughts move. He is the first to give it a name, namely, the syllogism. The syllogism is a doctrine in which, from certain presuppositions (premises) something new (conclu-

sion) is deduced. Aristotle himself defines a syllogism as "a discourse in which, certain things being stated, something other than what is stated follows of necessity from their being so."¹ Syllogism is an argument with two premises and a conclusion. These three propositions, the premises and conclusion are of one of the four forms A, E, I and O. The argument consists of three terms, that is, major term, minor term and middle term.

The two premises are known as major premise and minor premise. The major term must be present in the major premise and minor term in the minor premise. The middle term must be present in both the premises. Following is the standard example of syllogism.

All men are mortal.
Aristotle is a man.
∴ Aristotle is mortal.

In this syllogism 'man' is the middle term and its connection with 'mortal' in one premise and with 'Aristotle' in the other necessitates connection. The Predicate term in the conclusion is called the 'major term', and the premise in which it occurs is the major premise. The subject term of the conclusion is called the 'minor term'

1. Aristotle's Posterior Analytics. Translated by Hugh Tredenneck, Cambridge: Harvard University Press, 1966.

which occurs in the minor premise. Middle term plays an important role in syllogism. The figure or nature of syllogism is determined by the position of the middle term in the two premises.

The nature or form of syllogism in which the middle term is the subject of the major premise and the predicate of the minor premise is called the syllogism in the first figure.

The nature or form of syllogism in which the middle term is the Predicate of both the premises is called the syllogism in the second figure.

Syllogisms in the third figure are those in which middle term is the subject of both the premises. And in the form of syllogism, where the middle term is the Predicate of the major premise and Subject of the minor premise is called the syllogism in the Fourth figure.

In order to establish a scientific proposition, it is not sufficient to show such and such has been found to be the case, but that it must be proved and that it could not possibly be otherwise. As for example, "two plus two equals four" is the archetype of all scientific truth, and it is literally inconceivable that it should be false. On the other hand, all men are mortal or that fire produces

heat, might conceivably prove untrue, because these are accidental or contingent judgements, which are excluded from the domain of science. Thinking consists in reasoning or scientific demonstration in deriving the particular from the universal proposition. Inferences are composed of judgements which when expressed in language are called Arguments. The judgements are made up of concepts, which are expressed in terms. In his logic, he uses concepts in connection with terms. His primary concern is with the logic of judgements or propositions.

The central concern of traditional logic is the investigation of the logical relations of four propositional forms. Universal Affirmative (A), Universal Negative (E), Particular Affirmative (I), and Particular Negative (O), which may be represented and illustrated as follows:

A	- All S is P	All men are mortal.
E	- No S is P	No men are mortal.
I	- Some S is P	Some men are mortal.
O	- Some S is not P	Some men are not mortal.

In traditional logic, all propositions are of subject, predicate form, that is to say, every proposition has a subject of which something is predicated. 'S' stands

for the subject-term, 'P' for the Predicate-term and 'is' is the mark of copula which always remains in present tense form. Copula should remain in the proposition, which marks that P is to be taken as predicated of S. The distinction between affirmative and negative is called a distinction of quality. The distinction between Universal and Particular is called a distinction of quantity.

Inference for traditional logic is either 'immediate' or 'mediate'. We make an immediate inference when we infer a valid conclusion from a single premise. On the other hand, in mediate inference we deduce the conclusion from more than one premises in which there is one middle term. Traditional logic is mainly concerned with mediate inference which is called syllogism. In each figure, there are different moods, depending on the quality and quantity of the premises and the conclusion.

There are four fundamental forms of proposition namely, A, E, I and O, and there are four possible arrangements of subject-predicate and middle term (i.e., four figures). So there are sixteen possible moods in each figure. And the possible combinations of the premises in each figure are as follows:

AA	EA	IA	OA
AE	EE	IE	OE
AI	EI	II	OI
AO	EO	IO	OO

Now, one of the rules of the syllogism states that no conclusion follows from two negative propositions. Thus, of these 16 possible Moods, none of the EE, EO, OE and OO possible combinations of premises can give any conclusion in any figure. Again from two particular propositions no conclusion follows: so II, IO, OI and OO combinations also cannot give any conclusion in any figure. And lastly, from a particular major and a negative minor no conclusion follows; so, the IE combination also cannot give any conclusion in any figure.

Thus, of these 16 possible Moods, only the 8 moods remain. These are AA, AE, AI, AO, EA, EI, IA and OA. And only these 8 possible moods have the possibility of being valid in each figure. So, only $8 \times 4 = 32$ moods are possible to be valid in four figures taken together. Now, on an examination of each figure separately it is found that, out of these 32 possible moods, only 19 moods are valid. Because each figure has got its own special characteristics, and this is the reason why the above 8 moods cannot yield valid conclusions in each figure.

In order to determine the validity of syllogism Aristotle formulated a principle. Its name is "Dictum De Omni et Nullo". "Dictum" means "principle" or "statement". "Omni" is "all" and "Nullo" is none. Therefore, this

principle of Aristotle literally means "A statement concerning all and none". This principle may be stated or defined as follows . "What is true of certain class taken distributively, is true of every member of the class, and what is not true of a class, taken distributively is not true of any member of the class".

To explain this 'dictum' let us take the following syllogism as an example:

All men are mortal.
 Ram is a man.
 ∴ Ram is mortal.

The term "mortal" (predicate) in the major premise of this syllogism has been affirmatively predicated of the distributed (subject) term "man". Therefore, when in the minor premise it has been stated that the term, "Ram" belongs to or is included under the term "man" then in the same manner, that is affirmatively, the term 'mortal' will be the predicate of the term "Ram" also.

If we analyse Aristotle's dictum, it is found that it directly applies to syllogism of the first figure and not to syllogism of the other figures.

According to this dictum, what is affirmed or denied (major term) of some distributed term (middle term)

may also be affirmed or denied of some term (minor term) that is included under that distributed term.

So according to this 'dictum', in a syllogism, the middle term occupies the position of the subject in the major premise, and the position of the predicate in the minor premise. In short, this dictum is directly applicable only to the syllogisms of the first figure. Thus by analysing this dictum the special rules of the first figure may be obtained which are (i) The major premise must be universal, and (ii) the minor premise must be affirmative. First figure is also known as perfect figure, and all the rest are known as imperfect figures. In order to ascertain the validity of the syllogisms of the other figures it is necessary to change or reduce it to the first figure. And this method is known as Reduction.

Reduction literally means change or transformation. Reduction is of two kinds, namely, direct and indirect.

In Direct Reduction, some syllogism of the so-called imperfect figures is reduced into some valid mood of the first figure by means of conversion and obversion. If this act of reduction is successful, then the syllogism is declared to be valid.

Indirect Reduction is made by means of the method of "Reductio ad absurdum", which may be explained in this way that 'a proposition is proved indirectly by showing that its contradictory is false'. This is done by showing that if the contradictory of a given proposition is assumed to be true, then it leads to self-contradiction. This Indirect Reduction is a method of Indirect proof.

So, we may regard the moods of the first figure as undemonstrated and indemonstrable axioms from which all the other valid moods can be deduced. And the doctrine of reduction makes it possible for us to regard traditional logic as the construction of a deductive system of inter-related laws. Though he does not present the logic of the syllogism in the form in which other deductive systems, for example, Euclidean geometry or the propositional calculus in Russell's and Whitehead's Principia Mathematica, are usually presented. He presented the syllogistic logic as a deductive system. He has taken the moods of first figure as an axiom.

The syllogism of Aristotle, as he maintains, is a theory neither of classes nor of predicates, it exists apart from other deductive systems. Aristotle's syllogism is having its own axioms and its own problems.

Aristotelian logic fails to provide a complete and satisfactory formal analysis of propositions and their logical relations.

There are many types of argument which cannot be evaluated by the Aristotelian methods. For example, consider the following two-premise arguments.

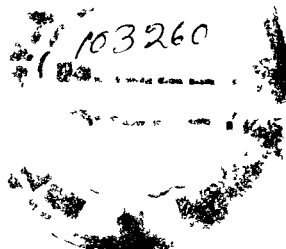
- (1) If A is elected as class president then B
will be elected as vice-president.

A is elected as class president.
∴ B is elected as vice-president.

- (2) Either he is a bachelor, or he is married.

He is a bachelor.
∴ He is not married.

Now, these arguments cannot be translatable into syllogistic form. So to proceed further it is necessary to introduce supplementary propositions to the original set of four. Thus, we have to consider new groups of propositions derived from such arguments as '1' and '2' above. So traditional logic is incomplete. No adequate analysis is given, for singular proposition, that is to say propositions about individuals. Aristotelian logic is an incomplete presentation of logical relations. Laws of the logic



of proposition are either unrecognised or disguised as laws of the logic of terms. Although the logic of proposition was systematically investigated by Stoic logicians after the death of Aristotle, their discoveries had little effect on the development of traditional logic. It was only in the 18th century that the importance of non-syllogistic logic began to be generally recognised. In the time of Aristotle's formulation of the syllogistic, the Megarian and Stoic schools were studying problems in logic that were independent of the syllogistic. The Megarians i.e., Euclides, Diodorus, Philo and the Stoics (Zeno) are primarily concerned with the setting out and understanding of complex propositional arguments. They use some propositional syllogism. From their overall concern with propositional logic, the Megarians in particular laid the groundwork of the truth-functional proposition.

In nineteenth century, English Mathematician, George-Boole in his famous book The Mathematical Analysis of Logic, uses propositional logic as a special form of algebra. Besides the mathematical concerns, he clearly exhibited the basic of class and propositional logic.

In the twentieth century, B. Russell, A.N. Whitehead and Ludwig Wittgenstein used truth-table as an evaluation procedure. In this period, propositional logic

becomes the study of an abstract, uninterpreted system of axioms.

Propositional logic studies the logical behaviour of propositions. The propositions are formed out of the simpler propositions by means of various connectives.

Propositional logic is a basic part of logic. We understand by the term "proposition" any sentence which must be either true or false, but which of course cannot be both true and false at the same time. Thus "Phenol is poisonous", " $5 + 7 = 12$ " are propositions. And so are "phenol is nutritious", " $5 + 7 = 14$ ". Thus, we take proposition to mean what is meant by the grammatical term "indicative sentence". Proposition is the basic unit in the branch of logic.

In testing the validity of the certain type of argument, it is not always necessary to break-down the propositions into their component parts. Suppose for example, that we are examining the validity of an argument of the following kind:

All graduates should read Marxism.
Ram is a graduate.
∴ Ram should read Marxism.

This is of course a valid argument, but its validity

cannot be made plain unless we break-down or analyse the propositions into which the argument is composed. It is valid in virtue of certain relations between the terms "Ram", "graduate" and "should read Marxism". We can express this form of argument in the following way.

All P's are Q's
R is a P
∴ R is a Q.

If we write the above argument "all graduate should read Marxism" in different manner its meaning will remain the same but to testify its validity we do not need to analyse its proposition. Suppose if we write in the following way.

If he is a graduate, then he should read Marxism.

He is a graduate.
∴ He should read Marxism.

The subject matter of the two arguments are identical. Yet there is a difference, that they are not identical, that we do not have to break-down the propositions into their component parts. If we replace the propositions by p and q it stands.

If p then q
p
∴ q

And this is clearly a valid form of argument. This argument was called by medieval logicians the modus ponens. According to traditional logicians, there are two kinds of hypothetical argument, which are valid. These arguments belong to the logic of propositions which are Modus ponens and Modus tollens. The form of modus tollens is:

If P then Q
 not Q
 then not P.

The logic of proposition consists of laws of logic which hold between propositions. These laws can be presented in a logical vocabulary by simple signs for unanalysed propositions. We use signs for negation, conjunction, disjunction and implication, that is, the relation between antecedent and consequent. We know that it is logically impossible that both "He is Indian" and "He is not Indian", can be true. But there are special signs by which we can represent it unambiguously and succinctly. If we use these special signs, we commit ourselves to the rules that govern their use in the system of propositional logic. And this system is called the "calculus of propositions". The calculus of propositions, is the presentation of the laws of propositional logic. The rules of propositional logic have been noted down.

The letters p , q , r , etc. are known as propositional variables. They are variables because they do not stand for particular proposition but any proposition whatsoever.

The special signs, that is, ' $\sim$ ', ' $\cdot$ ', ' $\vee$ ', ' $\supset$ ', ' $\equiv$ ', --- , are known as constants. These signs cannot be used in isolation but with propositional variables.

The sign of negation ' $\sim$ ', always precedes a propositional variable.

The sign of conjunction ' $\cdot$ ' and the sign of disjunction ' $\vee$ ' make the link between the propositional variables.

' $\supset$ ' it is the sign of "material implication", represents the relation between antecedent and consequent.

The sign of 'material equivalence' ' $\equiv$ ' is also a link between propositions or propositional variables.

Every proposition whether simple or compound, is either true or false. We define the constants by stating the conditions under which compound propositions involving those constants are true or false. Thus we define:

- (1) Any statement of the form ' $\sim p$ ' is true if and

only if its constituent statement is false, and false if and only if its constituent statement is true, that is, ' $\sim p$ ' is true if ' p ' is false, and ' $\sim p$ ' is false when ' p ' is true.

(2) Any statement of the form ' $p \cdot q$ ' is true if and only if both its constituent statements are true, and false if and only if at least one of its constituent statements is false. Thus " $p \cdot q$ " is true if both ' p ' and ' q ' are true and false if both ' p ' and ' q ' are false or any of them is false.

(3) Any statement of the form ' $p \vee q$ ' is true if and only if at least one of its constituent statements is true, that is, it is true if either ' p ' is true or ' q ' is true. It is false only when both its constituent statements are false, that is, if both ' p ' and ' q ' are false.

(4) Any statement of the form ' $p \supset q$ ' is true if and only if it is not the case that the first of its constituent statements is true and the second false, that is, it is always true except in the case that ' p ' is true and ' q ' is false, and it is false if and only if the first of its constituent statements is true and the second false, that is if ' p ' is true and ' q ' is false then it is false.

(5) Lastly, any statement of the form ' $p \equiv q$ ' is true if and only if its constituent statements are either both true or both false. If both ' p ' and ' q ' are either true or false then it is true, and false if one of them is true and the other false that is if ' p ' is true and ' q ' is false or if ' p ' is false and ' q ' is true then it is false.

All the logical constants are not primitive. It is possible to define the logical constant of the implicative function ' $\supset$ ' in terms of ' $\sim$ ' and ' $\vee$ '. It is also possible to define both ' $\vee$ ' and ' $\cdot$ ' in terms of other logical constants. But ' $\sim$ ' has to be taken as a primitive constant as it cannot be defined in terms of any other constants that we know. Thus ' $p \cdot q$ ' can be defined as ' $\sim(\sim p \vee \sim q)$ '. For example, "Ram is short and he is handsome" can be replaced by the example "It is not the case that neither Ram is short nor he is handsome". Thus ' $p \cdot q$ ' can be defined as $\sim(\sim p \vee \sim q)$, so ' $p \vee q$ ' can be defined as $\sim(\sim p \cdot \sim q)$. Similarly, ' $p \supset q$ ' can be expressed in terms of ' $\sim$ ' as for example, "If it rains then the farmers will get good crops", can be replaced by the sentence "It is not the case that it rains and the farmers will not get good crops", or by the sentence "Either it will not rain or the farmers will get good crops". So $p \supset q$ can be replaced either by $\sim(p \cdot \sim q)$ or by $\sim p \vee q$. Since, as we know, a

proposition of the form ' $p \supset q$ ' is false only if ' p ' is true and ' q ' is false, for all other truth values of ' p ' and ' q ', ' $p \supset q$ ' is true. In the same way ' $p \equiv q$ ' may be replaced by $(p \supset q) \cdot (q \supset p)$. The idiomatic way of expressing this function in English seems to be by the use of the phrase "if and only if". The proposition "the farmers will get good crops if and only if it rains" is true if the component propositions "The farmers will get good crops" and "it rains" are both true and also if they are both false. It is false if the first is false and the second true or if the first is true and the second false. Moreover, it has the same meaning as the conjunction of the two implications "if it rains then farmers will get good crops" and "if the farmers get good crops then it will rain". Thus " $p \equiv q$ " is equivalent to the conjunctive function ' $(p \supset q) \cdot (q \supset p)$ '.

There is a simple method of establishing whether formulae are or are not equivalent. This is possible by truth-table method and it can most easily be explained by giving examples of its use. Before using the truth-table we should know the rules for truth-functions.

(1) A truth-function of ' n ' variables need 2^n rows to provide for all its truth-possibilities. It means that if we have a function of one variable, then there will be

2^1 or 2 rows. If there will be two or three variables then we have to make 2^2 or 2^3 , that is, 4 or 8 rows respectively.

(2) Now, we have to decide how the truth values are to be set down in order to cover the rows. Suppose there are eight rows, then for the first propositional letter, one-half T's (True) and one-half F's (False) then for the second proposition letter one-quarter T's and one-quarter F's and for the last proposition letter of alternating T's and F's. This is the mechanical procedure for the list of combinations.

When a truth table for a compound proposition is completed then we have to find out whether the compound proposition is tautologous, contradictory, or contingent. If it has all T's, then the compound proposition is ✓ tautologous. If it has all F's then it is called contradictory and if it is a combination of both true and false then it is called contingent.

Now let us draw a truth table for the formulae $\{(p \supset q) \cdot \sim q\} \supset \sim p$. There are two variables. Hence we have to make $2^2 = 4$ rows, for the first proposition one-half true and one-half false, and for the last alternative true and false. First of all, we have to construct the columns of truth-value for the individual propositional variables from left to right.

1	2	3	4
$\{(p \supset q) \cdot \sim q\} \supset \sim p$			
T	T	T	T
T	F	F	T
F	T	T	F
F	F	F	F

Now, we have to construct the truth-table from left to right, of the constants of narrowest scope. In this case, the first ' $\sim$ ' and the two negation signs.

1	5	2	6	3	7	4
$\{(p \supset q) \cdot \sim q\} \sim p$						
T	T	T	F	T	F	T
T	F	F	T	F	F	T
F	T	T	F	T	T	F
F	T	F	T	F	T	F

Next, we will construct the truth-table for the remaining constants, working from those of narrower scope to those of wider scope. Thus the final table will read as,

1	5	2	8	6	3	9	7	4
$(.p \supset q) \cdot \sim q \supset \sim p$								
T	T	T	F	F	T	T	F	T
T	F	F	F	T	F	T	F	T
F	T	T	F	F	T	T	T	F
F	T	F	T	T	F	<u>T</u>	T	F

In step number 8, we form the table for the conjunction of ' $(p \supset q)$ ' and ' $\sim q$ '. And finally, in step number 9, we

complete the table by constructing the table for the constant of widest scope, the ' $\supset$ ' standing between ' $\{(p \supset q) \cdot \sim q\}^3$ ' on the left and ' $\sim p$ ' on the right. And to form the column, we apply the rule for the constant ' $\supset$ ' taking column 8 at the antecedent and column 7 as the consequent. It is observed that the main column of the truth-table, that is, column beneath the constant of widest scope, contains only T's, that is, the expression is shown to be true for all the possible truth-combinations of the variables. And this means that the expression is valid or logically true or a tautology.

Thus we have a method for testing the validity of arguments. We construct the truth-table of such expressions and if the main column, that is, the column beneath the constant of widest scope, contains only T's the argument is valid. But if there is at least one F in the main column, then the argument is invalid.

Suppose that, instead of the argument which we took as an example above, we take the following example.

1	5	2	8	6	3	9	7	4
{(p	⊃	q)	.	~	p}	⊃	~	q
T	T	T	F	F	T	T	F	T
T	F	F	F	F	T	T	T	F
F	T	T	T	T	F	F	F	T
F	T	F	T	T	F	T	T	F

Here it is observed that the column beneath the main constant does not consist only of T's. It has an F in the third row. And this means that the expression is invalid or contingent, because it is a combination of truth and false. If the widest scope contains all F's then the expression is called contradictory and also invalid. Let us take an example of contradictory expression.

1	5	2	8	3	7	6	4
(p	$\supset$	q)	$\equiv$	(p	.	$\sim$	q)
T	T	T	F	T	F	F	T
T	F	F	F	T	T	T	F
F	T	T	F	F	F	F	T
F	T	F	F	F	F	T	F

The modal concepts that interested Aristotle are expressed by such words as "necessarily", "possibly", "contingent" and "impossible". As is evidenced in our ordinary language discussions these modal words are used extensively in our argument. Thus, we have described an argument as valid when its argument proposition is necessarily true (tautologous), and we have, on occasion, appealed to arguments that when a proposition is necessarily false then it is false, that is, when a proposition is self-contradictory then it is always false. Propositions are either true or false and among true propositions there are some propositions which happen to be true and those which are bound to be true. Similarly, among false propositions, we can distinguish between those which are bound to be false, that is, which could not be true and those which happen to be false. A proposition which is bound to be true is called a necessary proposition or necessarily true proposition. And a proposition which is bound to be false is called an impossible proposition. And a proposition which is neither necessary nor impossible we call it a contingent proposition. A contingent proposition is sometimes true and sometimes false.

The proposition which is not impossible we call it a possible proposition. Possible here does not mean

"merely possible", like it is in ordinary language. By possible proposition here we mean all true propositions. Thus, if we say that 'p' is merely possible we mean that 'p' is in fact false, though it might have been true. But if 'p' is a possible proposition it is a true proposition. Thus propositions include all true propositions except impossible propositions.

By necessary proposition we mean a proposition which cannot fail to be true, that is, what is called logical necessity, that is by necessary here we do not mean that the things being as they are, or the universe is as it is, as it cannot be false, but rather it could not false or could not fail to be true. For example, a proposition that hydrogen and oxygen will produce stone instead of water is supported by competent scientist. Then we may believe this proposition, but this proposition is not necessary in our sense, rather if we will say that all husbands have wives, or there is no square circle and either that it is raining or it is not raining is a necessary proposition. Because these propositions cannot fail to be true. It is true in itself.

These notions necessity, impossibility, possibility, and contingency are said to be modal notions. In medieval period these notions were known as modal because

these notions are used as the modes in which the proposition could be true or false. They are closely and clearly related to each other. For example, if we say that "It is necessary that 'p' is equivalent by saying that it is impossible that not-p or it is not possible that 'p' is false". To say that "It is not necessary that not-p is equivalent by saying that it is impossible that 'p' or it is not impossible that not-p", or if we say that it is not necessary that not-p is equivalent to it is not impossible that 'p' or it is possible that 'p'.

Another formal feature of Modal logic is that they range over complete statements. It forms a new statement in such a way that the truth or falsity of new statement is not a function of the truth or falsity of the contained statement. For example, "It is not the case that today is Sunday" is a non-modal statement. The truth or falsity of this statement is entirely determined by the truth or falsity of the contained statement "Today is Sunday". "It is possible that today is Sunday", on the other hand, is a modal statement. Its truth-value is "independent" of the truth-value of "Today is Sunday", in the sense that the truth or falsity of one does not entirely determine the truth or falsity of the other. "It is possible that p" is true when 'p' is true, but it can also be true when 'p' is

true, but it can also be true when 'p' is false. When 'p' is false "It is possible that p" may be either true or false.

Traditionally, modal logic has been restricted to the consideration of the contexts "It is possible that -" and "It is necessary that -" and their negations (impossible, not necessary). In the twentieth century, most work in modal logic has focussed on attempts to develop "if - then" operators which are more satisfactory than the truth-functional material implication. Such attempts have used possibility and necessity in combination with truth-functional operators for the most part.

Another important modal notion is that of entailment. This relation is a converse relation, that is, to say that a proposition p, entails a proposition q. In converse way one can say that q follows logically from p, or that the inference from p to q is logically valid.

Attempts have been made to develop this modal logic by the strong 'if-then' operator. Such two modal operators are called dyadic and monadic modal operator. Dyadic modal operator is distinct from the monadic modal operator. Necessary and possible propositions are monadic. As for example, take any proposition 'p', we can form a

proposition that p is necessary. This proposition can be expressed as "It is necessary that p ". And this proposition will be true and ' p ' itself is necessary and false when ' p ' is not necessary. "It is necessary that" is a monadic proposition. Because "It is necessary that" is forming an operator on propositions. It is not a truth-functional operator, though from the falsity of ' p ' we can say that "It is necessary that ' p ' is false" or " p is not necessary". But when ' p ' is true we cannot say whether ' p ' is necessary or not - that is from the truth of ' p ' we cannot deduce neither the truth nor the falsity of ' p ' but "It is necessary that p ".

Similarly, "It is possible that" is also monadic proposition, because it is a forming operator on propositions. When we say that "It is possible that p " means that the proposition ' p ' is true because it is possible and ' p ' will be false when it is impossible. It too is not truth-functional.

The dyadic modal operator for the "if-then" relation is usually called entailment, to distinguish it from the weaker implication operators. And a formal system of entailment guarantees that whenever a statement, " p " entails another " q ", it can be shown that " q " is a relevant consequence of ' p '. Entailment relation does not

hold between the two statements simply on the strength of the truth-values of the statements. "Entails" follows logically from dyadic proposition. Dyadic modal operator is also not truth functional.

We call these operators modal operators and the system of logic is considered as modal system or modal logic. The propositional logic cannot provide adequate theory of inference for argument. For example, the argument -

"All men are mortal, Ram is a man. Therefore, Ram is mortal".

It is a valid argument. But one cannot establish its validity within the context of the propositional logic. Because, the propositional logic deals only with the structure of propositions in terms of their component propositions. The above argument requires an analysis of the propositional structure along the subject - predicate lines as done in grammar. The propositional logic does not break-down a proposition into its constituent parts. It provides a theory of inference only for those arguments, whose validity or invalidity is determined exclusively by the logical properties of the connectives "not", "and", "or", "then" and the like. But the majority of arguments

fall outside this class. This argument requires a more comprehensive logical apparatus. This need is met by predicate logic. Predicate logic rests in general on an analysis of the logical forms of certain simple sentences and in particular on a theory of the logical properties of the quantifiers. Thus predicate logic deals with the logical notions which are called terms, predicate, and quantifiers.

The word "Term" has been derived from the Latin word "Terminus" which means boundary. Hence, by the etymology of the word that occurs at the boundaries or extreme parts of a logical proposition; e.g., in the proposition "Man is mortal", 'Man' is the subject-term and 'mortal' is the predicate term. Thus "Term" is the subject or predicate of a sentence.

"Predicate" in logic has a broader role than it has in grammar. Predicate logic begins its analysis with the very simplest type of sentence, the singular sentence. A singular proposition may be defined as one which does not contain truth-functional connectives, and which is free from such words as "all", "none" and "some". A singular sentence asserts either that a certain property is possessed by an individual object or that a certain relation holds between two or more individual objects. ✓

Expressions that describe either the name or an individual objects are called terms. The expressions which stand for particular properties or relation of objects are called predicates. Let us take some examples:

- (1) John is mortal.
- (2) Ganges is a big river.
- (3) Table is between Ram and John.

Example (1) contains two terms, "John" and "mortal". Example (2) contains three terms, "Ganges", "river" and "big", and the example (3) contains four terms i.e., "Table", "Ram", "John" and "between". And it has been seen that, in each case, one of these terms is a proper name and the other term is a descriptive word or phrase. The proper name is said to be the logical subject of the proposition and the descriptive word or phrase is called the logical predicate. In these examples, "John", "Ganges" are logical subjects, and "mortal", "big" are logical predicates because they stand as properties of a particular object. In Predicate Logic, the letters "F", "G", "H" etc. are used as symbols for arbitrary predicates, they are called predicate-constants. Letters from the beginning of the alphabet - "a", "b", "c", etc. are used as symbol for arbitrary proper names and they are called individual constants. Thus the symbolic expression

"Fa" to be read as: "a has the property F" where 'a' is understood to be functioning as a proper name. If we interpret 'a' as Calcutta and 'F' as a "big city" we get the true proposition "Calcutta is a big city". Once the interpretation is known, the truth-value can, in general, be assigned but it is an important property of some formulae that they may come out true under one interpretation and false under another. As for example, in the example noted above "Fa" takes the value "true" if we interpret "a" as "Calcutta" and "F" as "is a big city" but takes the value "false" if we read "a" as "Calcutta" and "F" as "is a small city".

In predicate logic we should be acquainted with some symbols and their functions:

P, Q, R, S, F, G, H
 '¬', '∧', '∨', '→', '≡'
 x, y, z
 a, b, c
 (.)

In propositional logic the capital letters P, Q, R, S, F, G, H... stand for propositions. But in Predicate logic these capital letters stand for predicates. In predicate logic a predicate is both the verb and the property said to be possessed by the subject. Thus in the

sentence "Ram is honest", "honest" would be the predicate.

Logical constants will have the same use, that is, their definition and meaning will be the same as it is in propositional logic.

The symbol 'x', 'y', 'z' stand for individual variables, that is, they are variables that their range is over possible subjects. Individual variables do not stand for a particular object or a particular name. It is like pronouns which serve as a place-holders for terms.

Individual constants are symbolised as a, b, c They are used to indicate a particular individual. Suppose 'a' stands for a particular book and 'p' stands for "is white", then the formula "Pa" says that "This book is white". Similarly, if we take "b" stands "Smith" and 'F' stands for the predicate "is short" then the formula "Fb" says that "Smith is short". If we want to symbolise the proposition "If this book is white then Smith is short". The symbolisation will be:

$$Pa \supset Fb.$$

Individual variables do not stand in place of a particular individual. So the formula "Px" does not symbolise any proposition at all. Consider one such

expression, say Fx and let 'F' stand for "is bald" then " Fx " becomes "x is bald". This expression, however, could as well have been written "_____ is bald", "_____ is bald" is not a sentence but might be termed a sentence frame. Where the blank indicates the place where the name of an individual might be placed. This type of sentence is known as open sentence. It is open sentence because the formula " Fx " is interpreted as "x is bald". Here 'x' may be John or Tom or any individual person, any individual person might be placed in the place of x. Such a sentence frame is neither true nor false. It is neither true nor false because it is not used to assert anything. If we put a name in the blank, however, our sentence frame becomes a sentence, when it becomes a sentence then it is used to make assertions which is either true or false. Similarly our formula " Fx " is neither true nor false until some individual constant is put in place of the individual variable x. Thus the formula Fx , which is not a proposition but becomes a proposition when its individual variables are replaced by individual constants. Replacing variables by names is not the only way to obtain true - false sentences from "open-sentences". We may also use the quantifiers. There are two kinds of quantifiers in our predicate logic. One is known as Universal quantifier and the other is Existential quantifier. The universal quanti-

fier refers to 'all', 'every', 'each' and similar terms while the existential quantifier refers to 'some', 'one', etc. The universal quantifier is written (x) and the existential quantifier is written $(\exists x)$. The universal quantifier written (x) , is to be read 'for all x '. The existential quantifier $(\exists x)$, is to be read "there is an x such that" or "for some x " where "some" means "at least one". A quantifier is said to be "on" the predicate variable which it contains, thus (x) and $(\exists x)$ are said to be quantifiers on x . Similarly (y) and $(\exists y)$ are said to be the universal quantifier on y and the existential quantifier on y , respectively.

Let us take two examples to illustrate these quantifiers.

(1) All philosophers are intelligent.

(2) Some philosophers are intelligent.

Hence, (1) and (2) may be represented symbolically as,

(1) $(x) Fx$

(2) $(\exists x) Fx$

The formula $(x) Fx$ says, given that F is the predicate "is intelligent", "For all x , x is intelligent". Now if we know what things can be x , i.e., if we know what

the range of x is, "For all x , x is intelligent", becomes a proposition. The range of the individual variables is always to be specified when we have quantified formulas. There are several ways in which this can be done. If we talk about numbers, we can simply specify that the range of our individual variable is numbers. Or if our talk is about human beings, we could specify that the range of our individual variable is human beings. If we were to specify that the range of x is human beings, then the formula $(x) Fx$ would say that for all x , where x is a human being, x is intelligent, or in other words, that all human beings are intelligent. If we do not specify the range of our individual variable explicitly, it is understood that it ranges over everything, i.e., that it ranges over the members of the universal class. Thus if we did not explicitly specify the range of x , the formula $(x) Fx$ would say, for all x , where x is anything at all, x is intelligent, or more simply everything is intelligent. Thus the range of the individual variable should be specified.

There is, however, another way of symbolising the proposition "All human beings are intelligent". We can translate the sentence by giving a variable "For every x , if x is a human being then x is intelligent". Suppose F

stands for the predicate "is human being" and G is the predicate "is intelligent". Then its symbolisation will stand as $(x) (Fx \supset Gx)$.

If we illustrate the sentence "Some men are intelligent" we can paraphrase it "For some x, x is a man and x is intelligent". Its symbolisation will stand as $(\exists x) (Fx, Gx)$. Here we cannot apply "For some x, if x is a man then x is intelligent". Because this "If x is a man, then x is intelligent" is applicable only in the case of "all men" it is not applicable to "some men" or "a man". For some x, we can only say that 'x is a man and x is intelligent'. Thus we can symbolise the following propositions as,

- (1) All human beings are intelligent = $(x) Fx \supset Gx$.
- (2) Some human beings are intelligent = $(\exists x) (Fx \cdot Gx)$.

The traditional A, E, I, O types of propositions are translated as follows:

- (1) All men are intelligent = $(x) (Fx \supset Gx)$.
- (2) No men are intelligent = $(x) (Fx \supset \sim Gx)$.
- (3) Some men are intelligent = $(\exists x) (Fx \cdot Gx)$.
- (4) Some men are not intelligent = $(\exists x) (Fx \cdot \sim Gx)$.

So far we have considered a single variable with one quantifier. We can modify a proposition by several

variables, with a quantifier for each variable. Thus in the formula $(x) (Fx \supset Gx)$, there is only one variable x has occurred. But in the formula $(x) (Fx \supset Gy)$ there is one occurrence of the variable x , and one occurrence of the variable y . This type of occurrence of the individual variable is simultaneously known as 'Bound variable and Free variable'. This can be done by introducing the notion of the scope of a quantifier. This is the predicate logic of first order because we have allowed quantification of individual variables only. The 'scope' of a formula is the formula appearing next to it. If an individual variable occurs within the 'scope' of a quantifier employing that variable or in the quantifier then it is bound, otherwise free. A quantifier is always said to be in its own scope. The scope of the quantifier in the formula $(x) (Fx \supset Gx)$ is the entire formula. Here, we are seeing that the variable is preceded by a suitable quantifier. An occurrence of an individual variable that lies in the scope of a quantifier on that variable is said to be a bound occurrence of that variable. All other occurrence of individual variables are said to be free occurrences of individual variables. Thus, all occurrences of x in the formula $(x) (Fx \supset Gx)$ are bound occurrences. Here x is a Bound variable, because it has been preceded by an appropriate quantifier. But in the formula $(x) (Fx \supset Gy)$, the scope of the universal quantifier on x is the entire formula and thus all occurrences

of the variable x in the formula are bound occurrences. But the occurrence of y is not in the scope of a quantifier on y and is thus a free occurrence of the variable y . So a free variable is that which is not preceded by an appropriate quantifier. Thus in the formula $(x) (Fx \supset Gy)$, x is a bound variable and y is a free variable.

The formula containing no free occurrences of any variables are said to be propositions. The formula which contain one or more free occurrences of an individual variable are known as propositional functions. Thus in the formula $(x) (Fx \supset Gx)$ and $(x) (Fx) \supset Gx$ have been shown to differ in the scope of the universal quantifier. Thus the former is a proposition and the latter is a propositional function. Owing to the difference in scope, the first formula $(x) (Fx \supset Gx)$, is a universally quantified. Conditional, whereas the second formula, $(x) (Fx) \supset Gx$, is a conditional with a universally quantified antecedent. Thus, the antecedent of the propositional function $(x) (Fx) \supset Gx$ is a proposition, and its consequent is a propositional function.

When we speak of truth or falsity in logic, we usually mean the logical truth or validity and logical falsity or invalidity. Truth or falsity of proposition is related in the propositional logic. But if we want to use

this 'truth' or 'falsity' in ordinary usage, we can do so only by giving rules so that our formula can be interpreted to stand for propositions. Then we can say that a formula is true if and only if the proposition which it is interpreted to stand for is true. We interpret a formula by assigning meanings to the constants in it. Suppose we take 'a' to mean the individual Smith and 'F' to mean the property of being intelligent. Then the formula 'Fa' will stand for the proposition "Smith is intelligent". And the formula 'Fa' will be true if and only if Smith is intelligent. Of course, we could interpret the 'Fa' to mean something quite different. But an important thing is that once we have assigned a particular meaning to a formula in a given context, then we must stick to it.

The formula which contains free variables cannot be said to be true or false. If we take an example "Fa" where 'a' means 'number thirteen' and F means odd. Then the "Fa" means "number thirteen is odd", which is in fact the case. But if we will take the example 'Fx' it will simply mean that x is odd, and this is neither true nor false. Since x is a variable, so we can apply any pronoun. At best we can say that "x is odd" is true for some value of x and x is odd. Now this x may be represented for number thirteen or an individual man or anything whatso-

ever. We can of course, say if we wish that 'x is odd' is true for some values of x and false for others.

In propositional logic we apply some mechanical laws to determine the validity and invalidity of an argument. But these laws are not applicable in predicate logic. The propositional formula $P \supset Q$ seems to be almost the same in the formula $(x) (Px \supset Qx)$ of the predicate logic. To determine the validity of the propositional formula $P \supset Q$, we have to put the truth value of its constituent parts P and Q. But it is not applicable in predicate logic. Because the formula $(x) (Px \supset Qx)$ is not a function of the truth value of its constituent parts. In this formula its constituent parts do not stand for propositions, so it is not true or false. It is not true or false, because the formula $(x) (Px \supset Qx)$ may be considered to be equivalent to the conjunction of infinitely many conditionals of the propositional logic. Though $(x) (Px \supset Qx)$ says that each thing, in the universe, if it has property P then it has property Q. Thus we can write $(x) (Px \supset Qx) = (Pa \supset Qa).(Pb \supset Qb).(Pc \supset Qc)$ etc. If we wish to determine its validity by the mechanical means of propositional logic, then the requisite truth table would have infinitely many rows and columns, which will be tiresome. Thus the way of testing the validity of the

predicate logic is different from that of propositional logic.

Though the predicate logic can solve the problem which the propositional logic cannot solve, even then the scope of predicate logic is limited. Because, the difficulty arises when we consider artificial classes (sets) whose elements, are finite or infinite in number. And here we need the logic of classes or sets. Logic of classes or sets is the important event of mathematical logic, for it includes modal theory recursion theory the axiomatic treatment of integers, reals and sets. It deals with pure reason or with what is rational. Its scope consists of logic of discovery a logic of development, some form of inductive logic or some form of dialectic logic.

It is generally acknowledged that mathematical logic remedies some defects of the other kinds of logic. Mathematical logic is the foundation of all mathematics because it includes axiomatic set theory to which all mathematics is formally reducible. However, it is often treated as a special branch of mathematics, and not as the very central branch of mathematics.

A very important pre-occupation of mathematical logic is to characterise exactly the basic mathematical

concepts such as natural numbers, real number, sets and logically correct proofs. The axiom system and the axiomatic method are taken as basic tools for achieving this purpose. Reflection on the axiom systems leads to mathematics which is largely concerned with a general study of symbol manipulations (syntax) and to modal theory which studies interpretations of axiom systems (semantics).

The use of formal axiomatic systems is a familiar feature of mathematical logic. Axioms are universal real self-evident propositions. They are self-evident, that is, they do not require any proof, e.g., the Law of Identity.

In an axiomatic system we first set up the basic concepts of our system and then decide to accept a few expressions built up out of these as unquestionable "truths" or axioms for our system. They can be regarded as statements which are accepted without proof or other support for the purpose of furnishing a starting point for the development of our system. From these, using clearly stated rules of deduction, we derive other statements which are theorems, or 'derived truths', of our system. Ordinary school geometry is a system of this kind with which we are all familiar.

In an axiomatic systems it is also desirable, that

our axioms be independent of one another, that is, that no one of them be derivable from the others. If an axiom is not independent then it is not needed as an axiom since it can be proved. Proofs have been devised for the consistency and completeness of systems and the independence of axioms. The interest in models and interpretations naturally leads to the central concept of set. In fact the central position of set is to reveal itself in many different ways.

A set is a collection of previously given objects. The set is determined when it is determined for every given object x whether or not x belongs to it. The objects which belong to the set are its members, and the set is a single object formed by collecting the members together. The members may be objects of any sorts, plants, animals, photons, numbers, functions, set, etc.

Philosophy of Mathematics and Mathematical Logic are very closely related. As far as the interaction between these two disciplines is concerned Frege plays an important role. Frege formalises pure logic and reduces Arithmetic to logic or set theory. Frege has achieved a lot as far as Mathematical Logic is concerned. Mathematical Logic has developed into a substantial subject, however, sometimes it disregards actual mathematical practice and activity.

Mathematical Logic is a meeting ground of mathematics and philosophy. Pure Mathematics seems to be piecemeal, highly technical and highly complicated. On the other hand, philosophy seems shifty, slippery and full of misplaced exactness and platitudes repeated interminably. Mathematical Logic aims to be systematic, accumulative and confined only to the fundamentals. It is relatively a simple branch of mathematics consisting of new methods of proof. Philosophers stand to benefit by mathematical logic because it enables them to learn the greatest number of methods, for a given amount of effort. The scope of mathematical logic consists in the following: It studies the basic concepts and methods and proofs in mathematics ✓ or in other words, studies the foundations of mathematics.

Having considered different types of logic and logic in its relation with mathematics, we may pass to a discussion of its more philosophical aspects. Logicians have been classified as nominalistic, conceptualist and realist or materialist, according as they think it worthwhile to discuss words, thoughts or things. A systematic study of logic must begin by regarding proposition as the unit from which the whole body of logical principles may be developed. A proposition is that of which truth and falsity can be significantly predicated. A proposition has

a formal part and a philosophical part. The aims and concerns of the formal science of logic are various. It has been very generally held that the proposition is the verbal expression of the judgement. But the basic aim is the systematic presentation of certain relations of deducibility or implication which holds among propositions. However, the formal logicians are not concerned with the entire field of deducibility relations. Formal logic concerns with the group of propositions which collectively exhibit certain structural or formal features of proposition. These features are represented in the logician's science by sets of schemata. A propositional function is a schema such as "x is mortal" which can be converted into a proposition by the substitution of a determinate value (e.g., Ram) for 'x'. Thus, 'All men are mortal' is a proposition to the effect that whatever x may be, if x is a man then x is mortal. Now-a-days the schemata with which we are mostly familiar, are made up of logical constants, sentence - letters, predicate letters and variables.

General proposition consists of the whole of formal logic or at least the calculus of truth-functions and the predicate, calculus. But propositions cannot be a subject of study unless they are expressed in a linguistic

communication. Because formal logic is purely mathematical, so it would have none but a purely mathematical interest unless it were related to actual discourse. Thus, the question concerning the modes of actual discourse, the theory of meaning, the nature and conditions of linguistic communication, come within the province of philosophical logic. It is certain, that the initial approach has been made for those questions from different directions. Philosophical logicians also took the current system of formal logic as the firm base to direct their ordering.

Proposition are of many kinds, but here we will discuss that proposition, which we need every day. If it is possible to say how things are in the world we live in, then we must have at our disposal to do two complementary functions, that we must be able to specify general types of situation, thing, event etc., and we must be able to attach these specifications to particular cases, i.e., indicate their particular incidence in the world. Austin also realises this necessity. He says, it is necessary for us to know the two conventions, to know the things in the world. The two conventions are descriptive convention and demonstrative convention. Descriptive conventions correlating words with general type of situation, etc., and the demonstrative conventions correlating words with

particular situations to be found in the world. But between these dual complementary functions, certain asymmetry has been noticed. Because if I relate a general character to the particular part of the world, then the other general character which I have to exclude from the world. Suppose, I take a particular surface as white, then I exclude the possibility of another surface being red, which has been unrealised by me. In the same way I do not similarly exclude the possibility of any other particular surface being white. This duality function i.e., general specification and particular attachment is not explicable by simple duality of linguistic conventions or expression - types. To understand this asymmetry it is important to understand the logical character of reference and predication.

The moment we are less concerned about this asymmetrical relation, then one part will remain excluded. By excluding this part, we are excluding the power of that part from the fundamental kind of assertion and also excluding the necessity of the existence of that power. Because the part we exclude must belong to general predicates in assertion, which must belong to the world we live in. Thus if we exclude the power which belongs to general predicate in assertion, we are excluding this part, to

every assertion about the world we live in. Now, if we say that every assertion about the world must admit of the two mutually exclusive possibilities of being true and false. Being true and being false is just another way of admitting this exclusion. But human beings are limited, so human assertion cannot make this world, as like divine one will do. And if the world is made by divine ordinance then the human assertions could not do anything. So to characterise a particular portion as being white does not mean to exclude its being red or blue. Suppose if we point to a model as green then we exclude the possibility of that model to being blue or red. But if we colour a particular surface as white, then there is a possibility to colour the other parts of that surface as red or green. When we assert that the colour of that particular model is green, then we exclude the possibility of that model being blue or red.

This true and false are some essential properties of proposition and in the same way it is presenting some essential properties of a fundamental kind of assertion. Because whatever is asserted is a proposition and whatever is a proposition is assertible. Now we have at our disposal that notion of every propositions admitting of the two mutually exclusive possibilities of truth and

falsity. And also we have at our disposal the notions of specifying the general type and attaching it to the particular case. Thus a proposition actually possesses two mutually exclusive truth-values i.e., truth and falsity. These truth and falsity are the essential elements in the logic of truth-functions and qualification. Except these two mutually exclusive proposition, nothing more is needed for explanation of the different modes of truth, functional composition. Again, the idea of specifying general type and attaching it to a particular case carries with it the idea of the range of proposition. The idea which is applicable to a particular case is also applicable to a plurality of different particular cases. The duality of this function that the general specification and particular attachment is not possible to explain by the simple duality of linguistic conventions or expression - types. To understand this logical duality we need to understand Reference and Predication. This enquiry is an extra-logical enquiry, it is a philosophical logical enquiry.

According to P.F. Strawson, we cannot determine whether a term say "red" is learned as the name of an attribute or a predicate of particulars, unless we ostensibly learn the meaning of the term as articulated,

in the language. Now this situation can be articulated either in the form "this is red", or in the form "red is here". In the proposition "this is red" the term "red" appears as a predicate of a particular demonstratively identified by the singular referring expression "this". And in the proposition "red is here" the term "red" appears as a name, and thus as itself a singular referring expression. Now, if there is to be reference to particulars at all, at least some terms like "red" must be learned as predicates of particulars. But if they are to be learned as predicate of particulars the language to which they belong must contain such forms as the former "this is red", the language of predicate calculus does not, however, contain such forms. Thus the language does contain singular referring expressions (i.e., names of universals) but none of them refer to particulars.

Strawson says that an ostensively defined term is only learned as a predicate if that situation is articulated in the form "this is red". But if that situation is articulated in the form "redness is here", then the term is learned as a name. When we ostensively taught a child the use of the word "red" in that case these two forms are not applicable, because in that we merely say on some occasion "red" and on others "not red". He did not learn

it either as predicate or as a singular subject, because he did not learn it within the context of a sentence. Whatever he has learnt, he learnt it as something as a word which applies to all the objects which he recognises resemble them as closely as they resemble each other. He learnt the word "red" as the name of something in virtue of which there is such a resemblance as he detects among the objects to which he applies it. He will apply it to anything which resemble each other'. The word "Red" he has learned by description. In the third chapter, I will discuss it in detail.

Language is regarded as the best means for communicating our thoughts to others and the efficiency with which it discharges its function depends largely on its generality. The presence of such general words in our language helps us in thinking about the objects which are not present here and now. These general words are not the same of particular person or particular place but they denote anyone of a whole range of objects or things like tables, chairs, and so on. With such general we can very easily understand any object or any state of affairs instead of having any personal experience of such object.

Problems about the generality of words sometimes strike philosopher's mind, because it is easy to under-

stand what a proper name is, but the problem arise when we ask about the general word such as table, chair, colour, man, etc. The ordinary object of our perception like table, a chair, etc. are particulars in the sense that each of them exists in and is limited to a particular part of space and time. They are also different from one another, because each and every particular object is unique in itself and occupies a specific time and place, which another object cannot share. Similarly, one colour is different from another colour and both cannot be at the same point of space at the same time. These particular objects or entities of the same class may be qualitatively different and also verifying in size and shape, but despite all such differences it is argued there must be something common in each of them, which we refer to by the same general word. This common element of objects of the same class is traditionally known as "universal" and the individual substances are known as "particulars". As a provisional description, universal is what is common to all objects which is normally called by the same name, instead of inventing a proper name for each individual object. This is how the problem of universal has cropped up in history of philosophy.

The particulars are limited in space and time and

are exclusive of one another. But the universals are something which applies to many particulars at the same time, but it is not bounded by particular space and time. It is present in many particulars, occupying different space and different time. It's argued that the universal can be known only through the particulars.

In ordinary common sense it is held that universals are abstract objects that are objects of thought rather than object of sense-perception. They may be indicated by the abstract nouns as beauty, courage, etc. It also may be indicated by adjective, verb, adverb, etc. when we refer to the qualities of objects and their relations to other objects.

But the problem arises when we ask what is that, which is common to a group of particulars, what exactly is its nature and how it is related with the particulars, how it can be known, etc. From the last two thousand years philosophers have been asking themselves what a universal is? They are not asking for instances of universals but a true definition of it or in other words, what it is that a general word is the name of, is it the name of anything at all? The concepts of universal and particular and their problems are raised by many philosophers. The problem

involves the question, whether what we refer to as universals are to be found in thought alone or are also in things in themselves.

We first find the argument about universals in Plato's "Dialogues". He is the first one, who discussed the difficulties and the problems of universals and particulars. In the present century, Wittgenstein and many other philosophers discuss about the problem of universals. In the second chapter, I will explain the views of different philosophers, and will try to consider whether there is a fundamental division of the objects with which metaphysics is concerned with.

The other logical distinction which we require is the distinction between verbs and substantives, or between the objects denoted by verbs and the objects denoted by substantive. The nature of this distinction emerges from the analysis of complex sentences. In the complex sentences, a certain number of different entities are combined into a single entity by means of relation. For example, 'x's hatred for 'y's is a complex sentence where hatred combines x and y into one whole, or if we say A's belief that x hates y is a complex, in which belief combines A, x and y, and hatred into one whole. This capacity for ✓ combining terms into a single complex is the defining

characteristics of verbs. There are verbs which are philosophically as well as grammatically instantive. Such verbs, if they exist, may be called predicates. The proposition in which these verbs are attributed may be called subject and predicate. If all verbs are in relation then it will express a relation of subject to predicate. The proposition which holds such type of relation is known as Predication. If the proposition is in a subject-predicate form, and the predicate is the verb, then there will be a equivalent proposition in which the predicate is related to the subject. As for example, "A exists" will be equivalent to "A has existence". But the question whether predicate is a verb or not is not important. The more important question is whether there is a specific relation of predication or whether what are grammatically subject-predicate propositions are really of many different kinds.

The distinction between subject and predicate is a very significant one. A large number of philosophical problems have to do with how the distinctions are related to one another. In the realm of grammar, subject and predicate are the parts of a sentence. In grammatical subject is the noun and predicate is the verb. Subject and Predicate are universal grammatical categories, because they are not only found in the European language but

present in a variety of languages. In philosophy, the grammatical distinction between subject and predicate has been prominent at least since Plato. Plato in his "Sophist" distinguished nouns and verbs as the classes of names. This topic will be a discourse of grammatical subject expression and also it will be a discourse as a logical subject.

In formal logic, there has been a distinction between subject and predicate. The dispute about the nature and scope of the subject and predicate separates traditional from modern logicians. In modern logic, what is important about the subject term is that it is a proper name and stands for an individual. In the example, "Fa", where "F" stands for some attribute and "a" is a proper name. This pattern never applies to general propositions, since fully general propositions contain quantifiers, variables, and predicate terms but no proper names. According to this view, general propositions pertain just to predicates and are not subject-predicate propositions at all. According to traditional logician, universal can serve as both logical subjects and logical predicates. Modern logic on the other hand, holds that only singular expressions can serve as logical subjects, and this rule seems to give prominence to individuals rather than to

universals. Frege's semantic distinction between sense and reference also arises from a consideration of subject and predicate. Many philosophers rejected Frege's distinction between sense and reference.

Many analytic philosophers, hold that the distinction between subject and predicate is not a grammatical nor a logical enquiry. P.F. Strawson, however, has revived the issue among them by considering the implications and presupposition of grammatical, logical and epistemological subjects in his metaphysical essay Individuals. I would critically examine the Strawsonian distinction between basic and derivative particulars. I would also discuss the Kantian distinction between real predicate and logical predicate. I would like to discuss this dispute in utmost thoroughness.

It is no exaggeration to say that the problem of "Particulars and Universals", "Subject and Predicate" and "Reference and Predication" are some of the important problems in philosophical logic. I believe that there is a thematic unity running through these problems. Such as the unity and the connection between "Particulars and Universals" and "Subject and Predicate". Some philosophical logicians consider the particulars to be subjects, and the universals to be predicates. And the problem of "Reference

and Predication" is ultimately connected with that of "Particular and Universal" and "Subject and Predicate". This ultimate relation and connection between these problems will be highlighted in the light of recent literature available on philosophical logic.

CHAPTER II

UNIVERSAL AND PARTICULAR

UNIVERSAL AND PARTICULAR

In this chapter I intend to discuss the problem of Universal and Particulars.

Language is regarded as the best means for communication of our thoughts to each other. Language is so much the most commonly used of all our tools for the continuance and improvement of our lives, for the promotion of our interests. And the prime function of language is to communicate our thoughts to others. And the efficiency with which it discharges that function depends very largely on its generality. The general words are not the name of particular person or particular place but they denote anyone of a whole range of objects or things like tables, chairs and so on. The presence of general words helps us to think about the objects which are not present here and now. If we put proper names (e.g., Ram, John, London) on one side, then the indicator words such as 'this' and 'that', and all the remaining words in the English language are general.

Suppose, a person complains to me that he has lost his pen, which was in his bag. I understand perfectly well

what he means by the statement, even though I have not seen his pen nor know which one was in his bag. I understand his statement because all the words in his statement are general words, as for example, "pen" and "bag" is the name not of the particular pen or bag he is referring, but of any pen or bag at all, 'lost' is the name not of a particular feature of the particular situation of which he is complaining, but of a feature which is common and particular to all situations. And, consequently, as long as I know what a pen is, what a bag is, what it is for something to be lost, etc. I shall understand the statement, and I can give him a suitable reply. Thus to understand general words, we do not need to have had personal experience of an object.

Problems about the generality of words sometimes strike philosophers' mind, because it is easy to understand what a proper name is, but what is a general word such as table, chair, man, etc. is the name of?

The ordinary objects which have a limit and also exist in a particular part of space and time are known as Particulars, as for example, a table, a chair, etc. They differ from one another, because each particular object is unique in itself and occupies a specific time and place. Similarly, one colour is different from another colour,

and two different colours cannot take the same point of space at the same time. In spite of these differences there must be something common in them. Thus in particular object or entities of the same class, though the object may be qualitatively different and also varying in size and shape, but in spite of these differences there must be something common in each of them, which we refer by the same general word. This common element which remains present in the object of some class is traditionally known as "universals". Thus a provisional description of a universal is that which is common to all objects which we normally call by the same name, e.g., 'Table'. Instead of inventing a proper name for each individual object we normally call by the same name, though each individual 'table' differs from one another in shape, size, colour, etc. but they have a common name or general word known as 'table'. This is how the problem of universal has cropped up in history of philosophy.

Thus the universal is something which applies to many particulars at the same time, while the particulars being limited in space and time are exclusive of one another. Universal is not bound by particular space and time but it is present in many particulars occupying different space and different time. Universals are

regarded as entities on which particulars are logically dependent. It is also argued that universals can be known through the particulars.

It is commonly held that universals are abstracted objects that are objects of thought rather than objects of some perception. Universals may be indicated by the abstract - nouns as beauty, courage, etc., and also it may be indicated by adjective, verb, adverb, etc., when we refer to the qualities of objects and their relations to other objects.

But the problem arises when we ask what is that which is common to a group of particulars, what exactly is its nature and how it is related with the particulars, how it can be known, etc. The philosophers are asking the question what universals are? The concept of universal, and the problem raised by it has a long history.

A recent development is the emergence of a version of the problem of universals in the philosophy of mathematics and of formal logic. Mathematics does not deal in universals as it has been conceived by the traditional philosophers. Mathematics deals with entities such as numbers and sets, or classes. It is not certain whether they are universals or not, but it is certain that they

are not particulars. And postulation of such entities raises ontological problem, as it is the same problem that arises in general philosophy. Thus the problem of universals is one of the most fundamental problems of philosophy. It is a very common, subtle and difficult topic of philosophical controversy. It arises directly from our reflections upon experience, thought and language. We have two kinds of knowledge of things; one is sensuous and the other is conceptual. Through sensuous knowledge we come to know about the concrete and particular aspect of a thing, whereas conceptual knowledge presents the same thing without any note of particularity. What we see and touch are particulars, and when we see a particular object, it affirms that it is of a certain kind, that it is of a certain genus and certain species. Thus when we think about a particular object we cannot help using general concepts. Thus the objects outside the mind, as presented by sensuous knowledge are particulars, whereas our concepts of them are general or universal. The same thing is applicable to our language also. Almost all words in our language, except proper names, are general, whereas what exists in the outside world are particulars.

Now the question naturally arises; are these concepts and words true? Do they give any knowledge of the

outside world? Does universal concept in the mind, or the general word in our language, stand for something that is objectively real? In other words, are there universals just as there are particulars? What are the universals, how they are related with particulars? These are the fundamental questions of this problem. It is, indeed, of central importance to enquire as to what is the relation between mental concepts and objective reality. The problem of universals is raised in various ways: What do general words, such as man, red, colour, etc. stand for the extra mental reality? How are universal concepts formed? If universal concepts are simply thought-constructions, how does scientific knowledge of the world become possible?

The concept of universals and the problems arising out of it are perennial topics of discussion in Western Philosophy. The starting point for the discussion is provided by Plato's theory of Forms. Plato in his dialogues advocates an extreme form of realism. According to Plato, universals are primary realities, and thus they are beyond our sense-experience. The sensible objects are merely imperfect copies of them and are real only to the degree in which they represent the perfect form, or the universal. This extreme realism of Plato is rejected by Aristotle. Aristotle agrees that universals are real, but

he does not accept the view that the universals are apart from the individuals. He holds that individuals are primarily real and universals are real only as their immanent features. These two forms of realism provide the foundation for prolonged discussions on universals in Western Philosophy.

In the Medieval period there arose a great controversy over the question of the existence of universals. They, however, reject both forms of realism and go in favour of conceptualism.

In the modern period, conceptualism is the predominant trend of Thought. Though Thomas Hobbes' nominalistic trend is also there, but it did not find much favour among the leading philosophers of this period.

There are philosophers of our day who dismiss the problem of universals as unreal. Some philosophers hold that the question about universals is unreal, because it is non-sensical. They hold that the 'universal' has no significance, for there are no universals in the world over and above the particulars. Others hold that the question to be unreal on the ground that it is concerned not with real objects, but only with words, that is, universal simply means a question about how words are used, or

should be used, whether it is abstract noun or whether it be classed with proper names. It will be shown in the course of this work that both these contentions are unjustified. I like to show that the problem of universals is one about entities having the same sort of existence, as particular things. It is also erroneous to suppose that the problem of universals is concerned purely with language or proper use of words. I shall try to see whether these views are self-consistent and secondly, whether they are reasonably justified.

Almost all philosophers agree that the reality of universals in some sense or the other is undeniable. It is indisputable that generality is an essential feature of the objects of experience.

The realist philosophers both in the Western and Indian thought have paid serious attention to the problem of universals like "what do general words such as 'man', 'red', 'colour' etc. stand for in the extramental reality? And this type of question is answered by the theory of realism. "Universals" in the realistic sense, are something that are quite independent of the existence and nature of human mind. If there are no minds, there could be no knowledge of universals, but to say this, is very different from saying that if there are no minds there

could be no universals to be known.

The term "universal" first came into philosophy as a translation of a term used by Aristotle. But for the first treatment of the problem we have to go back farther to Plato. The theory of "Ideas" or "Forms" as upheld by Plato is a theory as to the nature of universal. Because his theory of Forms deals with the same topics which later philosophers have discussed under the heading, "Problem of Universals". Thus Plato's theory of "Ideas" or "Forms" is regarded as the first theory of universals. According to Plato, "Universal" is an entity which does not depend on mind for its existence, nor does it require particulars. It is absolutely different from the particular objects of experience.

Plato in his theory of Ideas advocates the existence of universal entities that are absolutely different from the particular objects of experience. He emphasises absolute difference between universals and particulars. Universals, according to him, are "Forms" or "Patterns" fixed in the nature of things, while things are made in their image or likeness".¹ To him, Universals and Particulars are two different things. They are

1. Parmenides, 132 d-1-3.

different from each other for they are "distinct in origin" and they are not like nature. For him, universals are "unchanging", "ungenerate" and "indestructible", while the particulars are the opposite of all these characteristics. The Form neither receives anything else into itself from elsewhere, nor itself enters into anything else elsewhere. Thus the Forms are absolutely independent and transcendent entities. In the Timaeus he says about the particulars that "the particulars are merely 'semblance' or appearances of the Forms".²

Thus universals according to Plato, are "Forms" or "Patterns" fixed in the nature of the thing, while things made in their "image" or "likeness". Things or the particulars are the copies of the eternal, immutable, indestructible universals or ideas. The Platonic universals are non-temporal and non-spatial, that is, they exist independently of the world of space and time. It is a single substance existing timelessly and independently of any of its manifestations, but particulars logically depend on universals for their existence. As for example, the universal Table would continue to exist, even if all the tables will disappear from the world. Particulars stand in identical relationship to the universals, without which

2. Timaeus, 51b7-52d1.

they will be non-entities. Thus, it can be said that Platonic universals are absolutely different from Particulars which are subject to change. The universals which exist independent of space and time can be apprehended not by sense but by intellect. Forms, unlike particulars, cannot be perceived by the senses; one cannot see or touch the Form of Beauty, as one might see or touch a beautiful object.

Thus according to Plato, Forms are permanent and eternal. Forms are the objects of genuine knowledge, as the Forms are more real than particular.

Particulars, according to him, are only semi-real. They are semi-real, because they manifest the real forms and unreal because being a material thing it is subject to the laws of material change and decay. A form is required to explain particular objects. The Form must be separated from particulars because they must be free from imperfection with which particulars are inevitably infected.

Another characteristic of Plato's 'Idea' or 'Form' is that it is a transcendental category. The material world contains contradictions e.g., one thing may be beautiful in one respect, and may be ugly in another respect. The material world, or the world of senses cannot

be regarded as real, they are an appearance of reality. But to Plato, universals are the essence of things, real and do not possess contradictory characters; they are permanent. They are beyond space and time. As for example, "Goodness" is not of the existence of the Forms, we have to reflect on what our senses tell us. But Plato conceived this process of reflection in a very special and peculiar way. He holds that we have all had a direct intellectual perception of the Forms in a previous existence. But this previous knowledge we forget at our birth. But as soon as we perceive these particulars, which resemble these Forms, we are reminded of our previous experience of that Form and thus recover our lost knowledge.

Plato maintains that Forms have a greater reality than particulars. Forms have a greater reality because they are independent, eternal and changeless, whereas, particulars are dependent, transient and in a state of continual change.

The notion that the Forms are eternal and changeless is extremely important to Plato, because he holds that particulars, being transient and in a state of continual change could not be objects of genuine knowledge. For him, genuine knowledge, means the knowledge of the essential nature of things, and he holds that there

cannot be such knowledge of a thing which is always changing. Because a thing which always keeps on changing has no essential nature. If it is a changing entity, then it is difficult to know its real nature. Because only the pattern which the particular objects judged as good, but it itself is the perfect good, it is not locatable in space and time, and therefore, it is transcendental. Plato argues that if the "Form" were in space, then they would have to be in some particular place, and we ought to be able to find them somewhere. This would mean that they are particulars and also universals. Since universals are unchangeable and eternal, so they are beyond time. And thus, Plato regards the universal as transcendental entities.

Now the question may arise: how are the Forms known if they are transcendental, that is, if they are not given in sense-perception? Plato propounds the 'Doctrine of Reminiscence' in order to answer this question. He maintains that "Perceptions of objects give suggestions which remind the soul of the forms which it has known in a non-sensuous manner, in a previous knowledge".³ He gives a mythical account of how the soul acquire the knowledge of forms. Before, the earthly life the soul is said to have

3. Plato's Phaedo, 76d7 - e7.

beheld the pure forms in the incorporeal world itself. Forms are apprehended as the colourless, figureless, truly, real-reality seen only by the soul. The knowledge so obtained is forgotten at birth. But when in our ordinary existence we perceive particulars which resemble these Forms, we are reminded of our previous direct experience of the Forms and so recover our lost knowledge. Thus it is evident that Plato's doctrine of knowledge as recollection is closely connected with his conception of the relation of Forms to the world of phenomena. The world of phenomena, he regards as an imitation or a copy of the higher world of forms. Because he finds that particular objects always correspond to their class-concepts only to a certain degree and never came up to the ideal represented by them.⁴

Plato's theory of universals as discussed above suffers from a number of difficulties. The ideas are defined as being the sole reality. They have all reality in themselves. As being wholly real, there is no necessity for them to realise their being in the concrete manifestation of things. But if they are such reality why they should not remain for ever as they are in themselves. They should not go out of themselves to reproduce them again to

4. Parmenides, 132 a1 - b2, 132c12 - 133a7.

objects. For example, we have white objects in the universe, their existence is explained by the idea of whiteness. Now the question may arise that if the idea of whiteness is a Perfect whiteness, then it is, useless to reproduce white things again. Thus it seems that Plato's idea possesses no principle for the explanation of things.

Again Plato, holds that the object of knowledge is eternal and unchanging. This gives rise to another problem. Being existing in a changing world how can one be aware of what is eternal and unchanging.

Plato's universals are timeless entities but no such method is available to us for showing that universals are timeless entities. The only evidence that can be given by transcendental argument for the theory is that even if we do not know directly, we know indirectly that there are such entities. Otherwise our actual experience would not be of the kind that it is. In Republic, Plato says that whenever a number of things are called by the same name we postulate Form. But this is not true because we always make classifications on the basis of certain adventitious features which have no necessary connection with the essential nature of the objects classified.

Plato's theory of 'Ideas' has also been criticised

by Aristotle on many points. Aristotle's theory of universals grows out of his criticism of Platonic theory of ideas. Because his own system is simply an attempt to overcome the defect which he finds in Plato. The main objections of Aristotle against the Platonic theory are as follows.

Firstly, by conceiving forms as perfect entities, Plato introduced an unnecessary and unhelpful duplication of things met within ordinary experience. All the questions arising in the case of particulars will arise again in the case of forms. Thus, mere multiplication of entities is no solution to any problem.

Secondly, Plato's idea does not explain the existence of things. Theory of idea cannot explain movement or changes in objects. Being changeless patterns, which contain no principle of motion cannot function also as an efficient cause. Even if it is mysterious to think that the idea of redness produce red objects.

Thirdly, Aristotle points out that Plato has not properly explained the relation of ideas to things. He says that the particulars are the copies of ideas and participate or share in the corresponding ideas or universals. But how are we to understand such propositions?

Plato himself raises question about participation in the Parmenides. Does the particulars share the whole idea would be separate from i'self which is a contradiction. Again if it shares only a part of idea, then particulars cannot be regarded as a complete instance of idea. Ideas are the essence of things and they must be inherent in things. But instead of doing so, Plato regarded his ideas as transcendent patterns in which particular things participate in various degrees.

Aristotle is of the view that Plato has committed the logical mistake of treating the form both as an individual substance and a property. He entirely rejects Platonic view of one sided dependence between Forms and Particulars, as Plato maintains that Particulars depend on Forms for their existence, but Forms are not dependent on particulars. Aristotle, entirely rejects this view. He accepts the reality of universals but he denies the existence of universals as independent substances. Universals exist only as common elements in particulars and cannot therefore, exist apart from particulars. Aristotle, thus, eliminates Plato's realm of individual objects. For Aristotle, as it is not possible for universals to exist without particulars in the same way it is possible for particulars to exist without universals. As

for example, a smile simply is something which appears on a face, and likewise, man simply is a species to which particular individuals belong. Though the universal 'man' does not depend for its existence on any particular man as such, but it does depend for its existence on some particular man or other. This is because 'man' being a universal, is the kind of entity which exists only if some-way the universal 'smile' exists in the face of some particular man. The 'smile' cannot exist without the face, but the face can very well exist without the smile.

Plato takes the universals to be substances. So we need to consider what Aristotle meant by 'substance'. In the Categories, Aristotle uses the term 'substance' in two different senses, Primary substance and Secondary substance. To him, universals are substances in a secondary sense. In Aristotle's word,

What is most properly primarily and most strictly spoken of as substance is what is neither asserted of a subject, nor present in a subject, a particular man for instance or a particular horse. But people speak too of secondary substances, and to which, as species belongs what are spoken of as the primary substances, and to which, as general the species themselves belong. For instance, a particular man belongs to the species 'man' and the 'genus' to which the species belongs is animal, that are spoken of as secondary substances.⁴

4. The "Categories" Forms A.E. Wardmen and J.L. Creed in The Philosophy of Aristotle, pp. 137-38.

From the above we can say that, universals essentially belong to particulars and are logically dependent on them. As for example, there could be no table, unless it possesses the characteristics of being a table, similarly, there could be no such characteristics unless there are tables.

Aristotle's universals are dependent, but according to Plato, universals are independent substances. Though, they differ on this point, both of them being realists hold that universals are what they are quite independent of the existence and nature of human or any other mind. But regarding the knowledge of the universals, Plato's view is different from Aristotle's view. Both of them hold that the knowledge of universals is implicit in the ordinary sense experience, and we become aware of it not by senses but by intellectual intuition. Aristotle, argued that intellect or thought is the faculty by which we grasp essence embodied in matter. For Plato, awareness of universals is of the nature of recollection. According to him, the knowledge of universals and their mutual relations acquired by mind, the previous existence is revived when we perceive them again. But Aristotle could not accept this view of Plato. He maintains that the apprehension of universals arise from actual experiences

aided by memory of past-experiences. And such apprehension of universals is not in a single experience but in a gradual process. Thus, for Plato, the knowledge of universals is apriori and for Aristotle, it is derived from sense experience by abstraction, 'manness' or 'whiteness' etc. are not sensible entities like particulars but abstract characteristics or essences apprehended by intelligence.

The Aristotelian theory of universal has had a much stronger hold on philosophers, mainly because it seems so much more a common sense theory. Even then there are some defects in his theory. Universals are known as a feature or properties common to a number of instances. But this view gives rise to a question in our mind as to what is meant by "feature" common to a number of instances. In one sense, one has no difficulty whatever in answering that question. One can easily find, construct, or imagine situations in which we would normally say that a single feature was common to a number of instances, e.g., when we say of two varieties of apple that, although they are unlike in almost every respect, they possess one feature in common, that they are good nourishers. But there are various ways in which the notion of something is common to a number of other things or being shared by them can be

understood. Suppose, two or more people huddling together for warmth can share the same rug, they can share the same fire, or the same room, or the same table, or the same bowl of soup, and so on. But what characterises them all is that what is said to be shared or had in common is itself as much a particular as the persons sharing it. Therefore, none of these notions will serve to explain the Aristotelian notion of a feature being common to a number of instances, because in its case, although the instances are particular, the feature is expressly non-particular. The main objection against this theory is that it is difficult to verify the existence of these universals. It is not possible to discover an identical "colourness" appearing in all the colours, but which is not any determinate colour.

Dissatisfaction with Realist theories of universals, both in their Platonic and in their Aristotelian form led to the evolution of a radically different type of theory, according to which universal is not an entity at all. Universal is defined in terms of particulars and of the relation of resemblance, between them. Since universals are defined in terms of Resemblance this theory is also known as Resemblance Theory. Resemblance Theory is advocated by Nominalism. Nominalism is found in its most

explicit form in the thought of Thomas Hobbes. According to Hobbes, "the word universal is never the name of anything existent in nature, nor of any idea or phantasm formed in the mind, but always the name of some word or name."⁵ He again holds that nothing is universal but a general word, or that nothing is common to a group of objects apart from their being called by the same name. It means that universal is merely 'name', and we should not look for any other universal beyond the name.

But this position of Hobbes involves serious difficulties. The question is: why do we call different things by the same name? How can Hobbes consistently talk of the name being the universal when everything in the world is singular? He says that resemblance between individual things as the basis of their being called by the same name. He gives an example, 'a man' denotes anyone of the multitude of men, because there are similarities between one man and the other. And the particular is the concrete individual determinately known in empirical experience.

The fundamental difference between the Resemblance Theory and the Realist Theory is that, the general words

5. A passage from Hobbes, Elements of Philosophy, Quoted by Aaron, p. 20.

are proper names for the realist, but to the resemblance theory they are not the proper names. According to Resemblance Theory, a general word is the name of any one of a group of objects, not the name of specified individuals. As for example, to say that there is a universal Red is to say that there are objects each of which is red, or which resemble each other in being red, that is, there is certainly something which is common to all red objects, and that is not merely their all being called red, but that they resemble each other in being red.

Locke rejects the view of universals, advocated by both Plato and Aristotle. In the West, Locke is the chief among the conceptualists. In the opening chapter of Book III of the Essay he argues that even though our knowledge of the eternal world is derived from the particulars through senses, thus we do not need to remain in the particular but must pass forward to the universals or general ideas. Without the general ideas, it would be quite impossible for us to remember each particular thing experienced in its particularity. Again, without this general words, communication of thought would be a difficult thing. Because, it would be impossible to convey information by description. Then we have to speak in terms of proper names only, and there is a chance that another

person does not know what things are signified by our proper names. Thus, generalisation is essential for the enlargement of our knowledge. Locke concludes that thinking would be almost impossible without generalisation, and if the communication of thought is impossible, then the growth of knowledge, is also impossible.

Now the question arises what does Locke mean by a universal? According to him, universal is not a thing which exists separately as a Form. He abruptly dismisses the Platonic theory on the ground that "all things that exists are only particulars."⁶

He holds that in sense perception we know the existence of table, chair, and individual particular things existing in reality and whatever exists in the external world is particular. But universal could not possibly exist separately as the Platonic Form is supposed to exist. Only particulars exist, no universals exist.

Locke thus rejects both the Platonic and the Aristotelian theories of universals. For him, universals are not discovered, and are not in the world of particular existences. Then question arises what kind of entities

6. An Essay Concerning Human Understanding, Ed. Raymond Wilburn, Everyman's Library, 1947, Book III, Ch. iii, Sec. 6.

they are? In his book the Essay Concerning Human Understanding he states that "The inventions and creatures of the understanding made by it for its own use, and concern only signs whether words or ideas".⁷ This means that they belong to the realm of discourse and not in the realm of being and concern signs of thought for our language and our ideas.

Now about the nature and the function that the universals play can be marked out from Locke's doctrine of "Nominal essence" or general ideas. He argues that in nature universal is nothing but a nominal essence, by nominal essence he means that a general idea of concept. Nominal essence differs from real essence. Because nominal essence is not discovered by mind but it is made by it.

Words are seen as having meaning in so far as they stand for ideas. He says,

The use of words is to be sensible marks of ideas and the ideas they stand for are their proper and immediate signification. The use men have of these marks being either to record their own thoughts for the assistance of their own memory; or, as it were, to bring out their ideas, and lay them before the view of others: Words in their primary and immediate signification stand for nothing, but the ideas in the mind of him that uses them.⁸

7. Ibid., Book III, Ch. II, p. 20.

8. Ibid., "Of the Signification of the Words", 1-2.

Thus, we can say that the ideas stand for the function of the words. Since, ideas stand for the function of the word, then the question arises, what are the general ideas? And if there are general ideas, then what is it that distinguishes them from particular ideas?

Locke's view is that there are indeed general ideas. General ideas are formed by a process of abstraction from particular ideas. Locke introduces the term "abstraction" as follows:

The mind makes the particular ideas, received from particular objects, to become general; which is done by considering them as they are in the mind such appearances, separate from all other existence and the circumstances of real existence, as time, place or any other concomitant ideas. This is called abstraction....⁹

Locke has given an example of it, suppose we observe the whiteness of a piece of paper, the whiteness of some snow, the whiteness of milk, and so on, now if we separate the whiteness from the other accompanying ideas, as for example, the flatness of the paper, the coldness of the snow, then we can form the general idea of white. The idea of whiteness which we receive from the paper is the same idea as that which we receive from the snow. So, in this

9. Ibid., "Of Discerning".

way of abstraction, universals or general ideas are made. General idea in Locke's confession is nothing but a particular idea regarded in a special way, that is, as "Representing more individuals than one, each of which having in it a conformity to that abstract idea, is of that sort."¹⁰

An important question arises with regard to the account of generalising given above, namely, how is the representative character of a particular idea to be explained? How can a particular represent a sort, and what is a sort, he presumably realised the difficulties involved in his first account of the abstraction and hence proceeded to give another account of it. He answered the questions by arguing that he used the term 'sort' in place of 'species' and 'genus' of the school, which is a fabrication of our thought suggested by experience.

But the question arises, how does the mind fabricate it? In his second account of abstraction we will find a clear description of how mind fabricates it. In the sense of fabricating sorts generalising means the process of abstraction a core of qualities which we can find common in many particulars. Thus the general idea of Locke in the sense that it exists for the first time, but there

10. Ibid., Book III, Ch. II, p. 17.

is nothing new in the content, for it consists of those common features which are already contained in the particular ideas. The word 'man' signifies in the first place, the general idea and secondly, all the particulars which are members of this sort. And the content of general idea is derived from experience but the fabrication of it, is done by us and not by nature.

From his argument about general idea it seems that, he was using the word 'general idea' of 'universal' in the subjective conceptualist way to indicate a concept, or idea and not that of which it is the idea. It is subjective as it depends upon the mind for its creation. It can be objective only in the sense that the same word conveys the same general idea to many persons.

Two consequences follow from this position. Firstly, concepts are not permanently fixed, as on a simple realist theory they would be, a concept is liable to development and change as fresh experience or changes of view. Secondly, the meaning of the word, that is, the concept, as understood by different persons, need not necessarily be exactly the same. Now the general character of Locke's theory of universals is plain. It is clearly conceptualistic. There are, however, some serious difficulties in Locke's theory of universals. Locke's

conceptualist theory, as it is stated above, is inconsistent with itself. It says first that all that exists is particular, and then the general ideas are formed by abstracting common qualities. But if all that exists is particular, then how could we abstract common qualities? Locke cannot say that common qualities are also particulars, because it will contradict in terms. Moreover, the denial of the reality of universals loses much of its forces if the reality of common qualities is accepted. Again, it is not an easy task for us to find out 'what is common to all'.

Berkeley severely attacks Locke's doctrine of abstract general ideas. Berkeley's discussion of general ideas begins with an attack on Locke's doctrine of abstraction. Berkeley completely rejects Locke's view that the general ideas can be considered simply as ideas. And the character of general ideas must be different from particular ideas. According to Berkeley, we make an idea general, by simply making use of it in thought.

Berkeley's argument against Locke's "abstract general ideas" is based on the premist that one cannot conceive as separated those things which could not possibly exist as separated. As for example, it is impossible that there should be motion without there being something

which moves, and so on. He argues we cannot conceive motion if there is nothing which moves. In the same way it is impossible that a man should exist, without having some height or colour, and therefore, it is impossible for us to conceive or frame an idea a man having no particular height or colour. He further remarks:

It is equally impossible for me to form abstract idea of motion distinct from the body moving, and which is neither swift nor slow, curvilinear nor rectilinear, and the like may be said of all other abstract general ideas whatsoever.¹¹

Thus, it seems that we cannot single out a general quality common to many objects such as 'motion' or 'being coloured'. If we think of the term 'motion' it is always the motion of a particular body moving either quickly or slowly. Similarly, if we think of objects as 'being coloured' it is always of a particular colour, whatever colour it might be. Berkeley however, admits abstraction in the sense that we can think of some particular parts of qualities are separated from other parts or qualities with which they are united in objects but not in the sense that we can abstract one from another. But he denies that we

11. George Berkeley, Treatise Concerning the Principle of Human Knowledge, Sec. 10, Ed. A.J. Ayer and Raymond Winch Routledge and Kegan Paul, London, 1952.

can "abstract one from another or conceive separately those qualities, which it is impossible should exist so separated."¹²

Berkeley has often been criticised for identifying the conceivable with the imaginable. But Berkeley does not depend on that identification. It may be true to say that one cannot imagine or conceive motion without something which moves, or a man who has no particular height or colour. But does this view justify that to 'think' of a man is always to 'imagine' a man of a particular height and colour. Berkeley says that these two must be distinguished. We cannot imagine a man who has no particular height. But it does not mean that we cannot think and speak of 'man' meaning men of all heights at one and the same time. From this point we understand that an "abstract general idea" is a concept and not an 'image'.

Although Berkeley discards Locke's theory of abstract general ideas, he says that "all knowledge and demonstration are about universal notions". By the 'universal' Berkeley does not mean objective as it means in the realistic sense nor does it mean conception which is framed by the mind. Universality, for Berkeley means a

12. Ibid.

'relation' a relation which a particular bears 'to the particulars signified or represented by it'. What he seems to mean is that when, for example, we prove something of a triangle we have a universal idea of a triangle before our mind, though not an abstract general idea. When we talk about a triangle, a particular triangle comes before us which represents all triangles. Suppose, if the idea we use is that of an equilateral triangle, its function in our thinking is not to represent equilateral triangles, but simply to represent triangles. It is, therefore, playing the role of a general idea of triangle, and this, Berkeley holds, is the only sense in which general ideas are possible, that is, it is concerned not with a triangle in particular but the triangle in general. Now the point is what he means by the abstract general ideas. By the abstract general idea, he says that we can abstract triangularity neglecting particular features of the triangles. This is the abstract idea of triangularity. And triangles are particulars which make up one sort because they all share triangularity.

But this idea is not applicable to language. Men use words for communicating their thoughts, there is no determinate ideas annexed to them. There is no such thing as are precise and definite signification annexed to any

general name, rather it may signify a great number of particular ideas. But a name which has a particular definition is thereby restricted to one definite signification. As for example, a 'triangle' is defined as 'a plain figure bounded by three straight lines' by which that name is limited to denote a definite idea, and no other.

To sum up, to the final assessment of Berkeley's view, we must say that he is mainly concerned with the refutation of Locke's theory of abstract general ideas. His observations on language are very valuable, because it is not true that a general word invariable signifies a general idea. A word may signify different ideas in different situation. There are occasions where a particular word does not signify any idea, and occasions when we use words merely to arouse emotions. Thus it may be pointed out that the meaning conveyed by words, whether it be an idea or anything else, is always general.

Hume follows Berkeley in rejecting Locke's abstract ideas. He accepts Berkeley's principle that all general ideas are nothing but particular ideas. But Hume emphasises the role of words more strongly than Berkeley has done, Berkeley says that a word becomes general by its relation to a particular idea, but Hume puts it in other

way round. He holds that "A particular idea becomes general by being annexed to a general term; that is, to a term which from a customary conjunction, has a relation to many other particular ideas, and readily recalls them in the imagination."¹²

He offers an account of how a particular idea could represent others. He says an idea represents others through custom or habit, by the association of ideas and the association of words. At any given moment a man has any one individual idea before his mind, and this idea he associates with others of the same kind. It is because of the resemblance which he has found in his experience. According to Hume, the processes involved are as follows:

When we have found a resemblance among several objects, that often occur to us, we apply the same name to all of them, whatever differences we may observe in the degrees of their quantity and quality, and whatever other differences may appear among them. After we have acquired a custom of this kind, the hearing of that name revives the idea of one of these objects, and makes the imagination conceive it with all its particular circumstances and proportions. But as the same word is supposed to have been frequently applied to other individuals, that are different in many respects from that idea which is immediately present to the mind, the word not being able to

12. A Treatise Concerning Human Nature, Book I, Part I, Sec. vii, "British Empirical Philosophers", Ed. A.J. Ayer and Raymond Winch, p. 315.

revive the idea of these individuals, only touches the soul, if I may be allowed so to speak, and revives that custom, which we have acquired by surveying them. They are not really and in fact present to the mind, but only in power, nor do we draw them all out distinctly in the imagination, but keep ourselves in a readiness to survey any of them, as we may be prompted by a present design or necessity.¹³

Thus, according to Hume, when we hear and understand a general term, what happens to us is that, there comes into our mind the idea of a particular thing of that kind. Thus, the possession of a general idea or concept becomes a mental disposition. What is required here is that we have to put ourselves in a state of readiness to produce other ideas of things of that kind.

Now, the new thing here is that the notion of readiness. Thus the knowing the meaning of a general term involves the capacity to form, not one abstract idea, but any one of a whole range of particular ideas. And he holds that when we use a general term, the idea which comes before our minds will be the idea of a particular thing of the relevant kind.

The important point emphasised by Hume is that a concept must be thought of in terms of disposition. That

13. Op.cit., p. 313.

is, to have a concept actually in the mind at any given time is to have in mind an individual idea plus the appropriate associative disposition.

An analogy may help to make Hume's point clear about the notion of 'readiness'. Suppose a person has learned 'English' and has not forgotten that he has the capacity to speak English at all times. And whenever he speaks in English, he is exercising this capacity. But suppose that he goes to pick up the telephone in the expectation that the person on the line will speak to him in English. Then, here he is not exercising his capacity to speak English, but he is in a state of readiness to exercise it.

Now, we may say that Hume's theory of 'readiness' is required for an adequate account of what goes on when one is hearing or using a word with understanding. By 'Readiness' he means to produce mental images. It is the readiness which makes the difference between understanding and merely hearing the words. Suppose a person who is deficient in mental imagery, and therefore, he cannot produce mental images of 'men'. He does not know what the term "man" means, and so he cannot hear it or use it with a proper understanding.

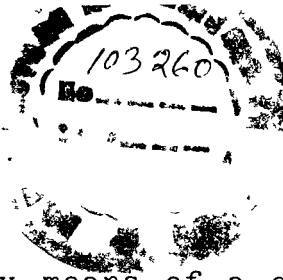
It may be granted that we can explain the notion of hearing or using a word without reference to imagery. But without the mental imagery we can know the meaning of the word. If a person is deficient of mental imagery, he can come to know in the process of learning. Suppose a person does not know what the term 'man' means, here he does not require the use of mental imagery, rather he can learn it by observing actual men. It seems therefore, that without reference to mental imagery, we can explain the function of general terms or of words. But we need 'ideas'.

Thus, words play an important role in Hume's doctrine of association of ideas. Suppose a particular idea which resembles another, though not exactly, tends to be associated with another because each is associated with a general word. Thus Hume's conceptualism, is on the side of resemblance. Everything which exists is individual, and generalisation and concept formation is possible, only to the extent that individual objects and their occurrences, their features and their mutual display perceptible resemblance to a greater or lesser extent.

Now, the question arises; what is Hume's conception of resemblance? Hume accepts the traditional theory of

resemblance. According to traditional view, and according to Hume, objects would resemble each other if they possess certain feature or features in common. But Hume's account of resemblance is not free from ambiguity. Because he says that we group all "simple ideas", because all of them resemble each other in their simplicity. It seems that Hume's theory of resemblance is that the simplicity of one simple idea is similar to, but not identical with, the simplicity of another simple idea. But Hume does not mean to say this, rather he seems to say that the simplicity in both the cases is identical.

Kant reacts to the universalistic model of Plato as the model of knowledge. He does not agree with this one-sided view of Platonic universals. It is neither universal alone nor particular alone which make knowledge possible. Kant argues that knowledge requires two things, on the one hand, intuition and on the other hand, the application of categories to what is given in intuition. Neither intuition alone nor categories alone can give knowledge. Categories are empty without intuition and intuition is blind without categories. The categories are therefore, necessary conditions of empirical knowledge. Such empirical knowledge is what Kant calls experience. The categories are necessary condition of experience.



Categories help us to comprehend by means of a category. In the preface to the second edition of the Critique, he says, "Experience is a species of knowledge which involves understanding, and understanding has rules which I must presuppose as being in me prior to objects being given to me, and therefore, as being a priori".¹⁴ Thus to Kant, universals originate in the understanding. To him sense-experience and understanding are two separate sources of knowledge. Sense experience is the source of the knowledge of particulars, and understanding is the source of the knowledge of particulars. For Kant, universals are of two kinds, a priori and empirical. The universal which is a priori gets their source purely in the understanding. And the universal which is empirical though originates in the understanding, but grounded on the resemblances apprehended in sense-experience. A judgement, he says, involves first a synthesis of apprehension in intuition, secondly, a synthesis of reproduction in imagination and, thirdly, a synthesis of recognition in a concept. Thus "Apprehension, reproduction, and recognition" are the three aspects of the synthesis, which are the necessary conditions for knowing an object. They are categories that presuppose consciousness. The consciousness is a unity. But without

14. Critique of Pure Reason, Tr. N.K. Smith, Macmillan, London, 1963, A86, Preface to the Second Edition.

recognition, there cannot be unity of consciousness. Thus the concept is a rule by which synthesis of recognition, an essential element of all judgement, becomes possible. So for instance, it should not be able to say that, "this is a triangle" unless he has not come across the concept of triangle. Thus it is true, not only of a priori concepts, but of empirical concepts also.

The main criticism directed against Kant is that his account of pure concept is not clear. Because he does not explain how we come to possess these all important concepts nor does he make their nature clear. He only holds that the concepts are a priori they are not given in sense-experience. Kant's analysis of concepts has not been thorough enough. The notion of concepts which occupies a place of supreme importance in his philosophy remains vague, both in regard to empirical as well as pure concepts. Thus it is clear that he accepted the conceptualism of the empiricists particularly of Locke.

Thus, after Kant the problem, however, continued to be discussed. The Recurrence and Resemblance theories are two types of view which in the present century have formed the starting point for discussions of universals in the work of many different philosophers.

Let us begin by noting the common ground which exists between the two theories. Both the Recurrence Theory and the Resemblance Theory agree that our use of general terms is not merely arbitrary. We apply the same term to many things, because something about the things makes this appropriate. And both theories aim at giving a general explanation what this something is.

According to the Recurrence Theory, the application of general terms can be explained only by reference to common properties and relations. Suppose A and B possess the same property of "redness", then we call both A and B are "red". In the same way we can say that both A is larger than B and that C is larger than D because the same relation of being larger than holds between each of the two pairs. Thus there are genuinely recurring properties and relations, in the sense that one and the same property may belong to two different objects, and one and the same relation may hold between two different pairs of objects.

According to the Resemblance Theory, we ought to dispense with common properties and relations and explain the application of general terms as based on resemblance. As for example, we call both A and B "red", because they resemble each other in a certain way. And in the same way,

we say both that A is larger than B and that C is larger than D because the two pairs A and B, C and D are similarly related. The resemblance is sometimes explained as resemblance to a "standard particular". It means that we can explain the term "red" as applying to all things which resemble some red objects chosen as a standard, such as a sample in a colour chart.

Thus, the resemblance theory maintains that there are only individual things which resemble and differ from each other in various ways, whereas the Recurrence Theory asserts the existence of genuinely recurring common properties and relations.

Now we must consider the best known arguments about the Resemblance Theory, that are advanced by Bertrand Russell. "He holds that except proper names which stand for particulars, all words, substantives, adjectives, prepositions and verbs stand for universals."¹⁵ He says "that the universals that we know by acquaintance, are 'sensible qualities' relations of space and time, similarity and certain abstract logical universals."¹⁶ He also argues that the Resemblance Theory cannot avoid

15. B. Russell, The Problem of Philosophy, Home University Library, p. 93.

16. Ibid., p. 109.

universal. The version of Russell's argument in his book The Problem of Philosophy is as follows:

If we wish to avoid the universals whiteness and triangularity, we shall choose some particular patch of white or some particular triangle, and say that anything is white or a triangle if it has the right sort of resemblance to our chosen particular. But then the resemblance required will have to be a universal. Since there are many white things, the resemblance will have to hold between many pairs of particular white things, and this is the characteristic of a universal. It will be useless to say that there is a different resemblance for each pair, for then we shall have to say that these resemblances resemble each other, and thus at least we shall be forced to admit resemblance as a universal. The relation of resemblance, therefore, must be a true universal.¹⁷

Russell's point is very clear. He says that resemblances that is being relations of a certain kind are themselves universal. So by conceding that resemblances exist, the Resemblance Theorist has in fact conceded that universals exist.

Now, the question may arise, is it possible to explain away the universal 'similarity itself'? Russell's answer is that it is not possible without being involved in an endless regress. Because we have a number of

17. Ibid., p. 96.

similarity relations holding between pairs of objects. But how can we say that they are all similarity relations? If we try to treat them as we treat tables and reds, we shall be defining similarity in terms of the similarity relations, holding between similarity relations and so on ad-infinitum. To avoid such infinite regress, we have to treat all similarity relations as instances. But if similarity is a universal of which this and that similarity relations are instances, why object to Red being a universal of which this red object and that red object are instances? Thus, we cannot define similarity in terms of itself, without involving ourselves in an unending regress. But this makes us confuse over the notion of 'defining a universal'. But, why does this involve us in a vicious regress? The criticism seems to assume the principle that if P is similar to Q and Q is similar to R, then both similarities must be the same, and consequently, that both are instances of a universal similarity. But this leads to an ambiguity in 'same'. Suppose that P has a white object, Q has a white object, and also C has a white object. Now suppose, if one asks whether the similarity between P and Q is the same as the similarity between Q and R. We can give its answer in two different ways. In the first stage we will say that any white objects that they are having one and the same colour. All are one and

the same colour means that they all are white objects. This means that the similarity between P and Q is the same as the similarity between Q and R. And in the second way we can say that P's object is snow white, while Q's is off-white and that of R's is pure white. Now in that usage we do not say that the similarity between P and Q is the same as the similarity between Q and R. Here we have seen how the similarities can be used in two different usages. If we are employing the first' usage, the similarity between P and Q and the similarity between Q and R must be the same. It means to say that P, Q and R are like each other in being white, and therefore, the similarities are same. But it does not entail that they are instances of ? universal similarity. But if we are employing the second usage where we have seen that the similarities are not the same. And thus, P, Q, R are not the instances of a universal similarity. Thus, the words such as 'similarity', 'resemblance', 'identity', etc. are logically presupposed by words such as 'table', 'chair', 'cow', etc. If the world is exactly as it is now, except that there are no minds in it, then it would consist of objects between which various relations of resemblance and dissimilarity would hold. Then what reason have we for saying that the presence of minds makes similarity a universal of a different type from and what it would be in

their absence?

Thus the reality of universals, according to Russell is undeniable. He emphasises that the being of universals must not be regarded as mental. He says that "whatever being belongs to them is independent of being thought of or in any way apprehended by minds."¹⁸ He says, that it must not be thought of as an 'idea' or an 'act of thought', because then we will rob of its essential character of universality. According to him, all acts of thought are necessarily particulars. Because the thought differs from individual to individual, but it also differs to the same individual in different moments and of the mental life of that individual. Hence, he says that "universals are not thoughts, though when known they are the objects of thought".¹⁹ Thus thoughts and feelings, minds and physical objects exist, but universals do not exist in this sense, universals are 'being' being here means timeless, this, 'being' is opposed to 'existence'. Thus, for Russell, there are two worlds, the world of being (universals) and the world of existence (particular). Now the crucial question arises, how are the two

18. Ibid., p. 97.

19. Ibid., p. 99.

worlds, the world of universals and the world of particulars, related? Russell anticipates the question, but does not answer it.

Thus, we have seen that according to the theories of some philosophers there are universals, whereas, according to the theories of others there are not. Furthermore, we have seen that it can be a controversial question whether a given theory implies the existence of universals or not. The Resemblance Theorist offers his theory as a means of avoiding the need for universals, but as we have seen, Russell argues that he is in fact committed to granting the existence of at least one universal, namely, resemblance itself. ✓

The problem of universals is also a part of the ontological problem what kinds of entities are there? "Are there universals?" Though it is a mistake to get a conclusive answer, but this would not mean that there is nothing further to be said on questions of ontology. This type of ontological assumption would still need to be considered. Thus we need some account of what it is to make an ontological assumption.

In considering this question, Quine is thinking mainly of axiomatic theories. The theory which Quine has

discussed is based on predicate logic.

In his theory he asks the question, under what conditions should we say that it assumes the existence of entities of such and such a kind? The answer he offers is that the entities whose existence is assumed are those which constitute the range of the variables of the theory.

To explain this Quine says that we have a set of axioms, formulated using the symbolism of predicate logic, and there are other symbols whose meaning is as yet not specified, which calls a "theory form" it is not as it stands a theory because its axioms are statement forms rather than statements. As for example, " $(x) (Fx \supset Gx)$ " is merely a statement form until its meanings are specified for F and G. To get an actual theory, we must have to interpret Quine's theory of form. And interpreting this theory of form it involves, firstly, a certain range of entities, which are to be the values of the variables. Secondly, any proper names used in the theory form must be interpreted as standing for entities included in this range. And thirdly, any predicate symbols used in theory must be interpreted as predicates which are significantly applicable to entities in this range.

Let us take an example of the formula of type " $(x) (Fx)$ " or "Everything is F", will be true under that

interpretation if and only if the predicate which is the interpretation of F is true of all the specified range of entities. And a formula of the type " $(\exists x) (Fx)$ ", or "Something is F ", will be true under that interpretation if and only if the predicate which is the interpretation of F is true of at least one of the specified range of entities.

Here, Quine is saying that the theory assumes those entities whose existence is specified as the range of values of the variables. So, it is clear that theory assumes the existence of numbers if and only if numbers are specified as the range of values of the variables.

Now, a question may arise, unless there are numbers how can numbers be specified as the value of variables? Quine says that the variables are to be understood as having numbers as their range of values. It seems this theory is a theory of the kind as Quine assumes the existence of numbers.

So far we have formulated the views of Quine in terms of axiomatic theories. Therefore, we need to ask how far they can be applied to other kinds of discourse. In this point a question may arise, is it possible to decide whether our common sense beliefs about the world involve

us in assuming the existence of universals by the criterion of Quine's ontological assumptions?

At first sight, it may seem that we can quite easily apply the criterion and show thereby that we do make this assumption. As Quine holds, "They have many qualities in common" or "This thing has unusual properties". To illustrate this point let us take the word "red" as for example. It is not only the name of any entity common to all red objects, rather it is the name of anyone of the red objects. As Quine puts it,

One may admit that there are red houses, roses and sunsets, but deny, except as a popular and misleading manner of speaking, that they have anything in common.... There is not, in addition, any entity whatever, individual or otherwise which is named by the word "redness", nor, for that matter, by the word 'househood', 'rosehood', 'sunsethood'. That the houses and roses and sunsets are all of them red may be taken as ultimate and irreducible.²⁰

This point of Quine is like the resemblance theory. As the Resemblance theory advocates that a general word is the name of anyone of a group of objects, not the name of a specified entity or property common to all those objects.

Quine's view as stated above might be urged by the

20. W.V.O. Quine, From a Logical Point of View, Harvard University Press, 1953, p. 16.

realist that the predicates such as 'red', etc., must be regarded as names each of a single universal entity in order that they may be meaningful at all. But according to Quine, it is baseless assumption. He says that "we need no longer labour under the delusion that meaningfulness of a statement containing a singular term. A singular term need not name to be significant".²¹ Again it might be urged by the realist that, even if it be granted that there is distinction between meaning and naming, and that general words are not names of attributes, but still it must be admitted that they have meanings. And he also says that these meanings whether they are named or not, are still universals, and some of them might even be attributes. He does not accept the word "meaning". He holds that there are no "meanings", the words and sentences are meaningful. In his view, meaningfulness does not consist in having some abstract entity as meaning. Because he gives an example that a given linguistic utterance is always meaningful. As he puts,

We can use singular terms or predicates in our sentences without assuming the singular and abstract entities which they purport to name. Also need not assume a realm of entities called 'meanings' in order to understand the significance or meaningfulness of an utterance.²²

21. Ibid., pp. 8, 9.

22. Ibid., p. 12.

Wittgenstein also holds that meaning is a thing of the same kind as the word, though different from the word. But, if there are no common features corresponding to words, how do we make successful use of them? Wittgenstein says that we make use of general words not by discovering an identical feature but by "family resemblances". By the term family resemblance, he means the overlapping likeness, which one sees between the different members of the family. Our traditional view of 'universal' is that where we use general words for class of things, there must be a quality or a set of qualities common to all the members of that class. But Wittgenstein rejects this traditional view. He does not look for sameness and unity as traditional philosophers had done. He looks for differences and multiplicity among different entities. According to him, instead of finding such common qualities experience reveals to us some complex patterns of resemblance different in different cases. In other words, if we examine various individuals of the same class to which a general term is applied, we will see that they are not having any common essences or common properties in virtue of which they are so-called. Wittgenstein and other philosophers advocate the doctrine of resemblance, and holds resemblance as the ontological basis of thought and language. According to the resemblance theory, a general

word is the name of anyone of a group of objects, not the name of a specific entity or property common to all those objects. Regarding this view Wittgenstein cited an example of "game" in his Philosophical Investigations.⁶ "By the word game we mean 'board-games', 'card-games', 'ball-games', 'Asian-games' and so on. But what is common to them all? As he says, "there must be something common, or they would not be called 'games', but look and see whether there is anything common to all, - For if you look at them you will not see something that is common to all, but similarities, relationships and a whole series of them at that. To repeat, don't think but look. Look for example at board-games, with their multifarious relationship. Now, pass to card-games, here you find correspondences with the first group but many common features drop out, and others appear. When we pass next to ball-games, much that is common is retained, but much is lost - Are they all "amusing?" Compare chess with noughts and crosses or is there always winning and losing, or completion between players. Think of patience. In ball-games there is winning and losing but when a child throws his ball at the wall and catches it again, this feature has disappeared. Look at the parts played by skill and luck and at the difference between skill in chess and skill in tennis. Think now of games like ring-a-ring-a-roses, here is the element

of amusement, but how many other characteristic features have disappeared. And we can go through the . . . many other group of games in the same way, can see how similarities crop up and disappeared. And the result of this examination is we see a complicated network of similarities overlapping and crisscrosses sometimes similarities of detail!"²³

From the above exposition of game, it is very clear now that no much common essence or common qualities exist among particular of a class which we subsume under a general term. Even if there is no common essence or universals of games, we must not infer from this fact that all activities known as games are nothing but a disconnected group of things which are arbitrarily called by the general term 'game'. It is true that they do not have common essences but in Wittgenstein's language they have certain "family resemblance" for which general terms are used. Wittgenstein goes on to say,

I can think of no better expression to characterise these similarities than "family resemblance"; for the various resemblances between the members of a family, build, features, colour of eyes, gait, temperament, etc. overlap and criss-cross in the same way. And I shall say, 'games' form a family.²⁴

23. Wittgenstein, Philosophical Investigations, Translated by G.E.M. Auscombe, Basil Blackwell, Oxford, 1953, Pt. I, Sect. 66.

24. Ibid., Sec. 66.

Wittgenstein holds that we do not see common features or universals but frequently we can see in all an overall similarity that can be found among the members of a family. Realist is wrong here in insisting on common features. What is common to game is just that they are games. His example of 'games' gives us an idea that when we use a single general term for a group of particulars, there exists in each and every one of the same kind of family likeness which one sees 'between the different members of a family. Suppose in a family there are six members, four children and their parents. Looking at the face of the four children we can easily say that they belong to the same family, because the feature of their parents is found common to this four children. But it is also obvious to think that anyone of the features of the family face may be found absent also in every single one of the six members of the family. But above all there are some types of similarities that exist among them. Thus, Wittgenstein's generalisation is based on discovering resemblance amongst particulars without assuming identical properties or universals. And this for him is the sufficient basis for generalisation.

Now, it is plain that both philosophy of universals and the Philosophy of Resemblance answer the

same questions, though in different ways. The Philosophy of Universals answers that experience, thought and language become possible because there are universals in the eternal world. The Philosophy of Resemblance, on the other hand, answers that there are no discoverable universals, what we discover in the world are resemblances of various degrees, and it is on these resemblances that experience, thought and language depend. We have already indicated that a satisfactory solution of the problem cannot be found exclusively in any one philosophy.

P.F. Strawson who also does not agree with Plato that universals are the ultimate principles. He has given more importance to particulars. To him, particulars are basic in our conceptual framework. But he does not altogether eliminate the role of universals in our thought. Strawson begins with considering the conditions of introducing a particular into a proposition. Now, we have to find out the conditions. The first condition is that there must be a particular which the speaker is referring. Secondly, there should be a particular which the hearer takes him to be referring to and thirdly, the speaker's particulars should be identified with the hearer's particulars. One cannot use a name significantly to refer to someone or something, unless he does not know

what he is referring by that name. Strawson argues that in order for an identifying reference to a particular to be made correctly, there must be some true empirical proposition. And it should be known to the speaker that there is just one particular which answers to a certain description. A similar condition must be satisfied for a hearer in order for it to be the case that there is some particular which the hearer takes the speaker to be referring to.

The conditions of universal how it is introduced in a proposition Strawson says, "we find that there are no such parallel conditions which can be generally insisted on".²⁵

Suppose there is an adjectival expression, for the universal in question. Then it is necessary for us to get some empirical proposition which should be true. This empirical proposition is necessary in order to introduce the universal term Q. A sufficient condition for its introducibility is the truth, which should be known to the speaker of the empirical proposition that something or other is Q. But it is not the necessary condition. Because there is another equally sufficient condition in case of some universals, would be the truth of the empirical proposition that 'nothing is Q'. So we are getting two

25. P.F. Strawson, Individuals, University Paper Backs, Methuen, London, 1959, p. 183.

necessary condition in the form of 'either something is Q' or 'nothing is Q'. After disjoining these two sufficient conditions, it is now necessary to find a fact about the world, but not an empirical proposition.

Strawson argues that in a conversation to identify what a universal or a particular is, needs to know what the speaker is intended to be introduced by the introducing expressions. Knowing what particular is, involves knowing some empirical fact. But knowing what universal is, does not need to know any empirical fact, rather it merely requires knowing the language. Thus, for the introduction of a particular in a conversation, it is necessary that there must be a true empirical proposition of a definite kind. But in the case of universal it is not necessary that there must be a true empirical proposition of any kind. Thus, it is clear that Strawson tries to show that the introduction of a particular into a proposition depends on a definite fact about the world.

Thus, the fundamental picture Strawson offers is that particular rests on a fact, but universal is the constituent of a fact. He considers that the thought of definite particular is a complete thought, but universal seems to be incomplete thought. So, particular possess completeness, whereas the universal lack of completeness.

From the above discussion it is clear that Strawson gives logical priority to particulars than to universals. For him particulars are primary and universals are secondary. His view distinguishes into two worlds; firstly, the empirical world and secondly, the logical world. Particulars picture the fact of our empirical world, whereas the universals only picture meaning of the proposition of which they are the constituents.

To sum up, we can say that though Strawson treats particulars as the basic elements of thought yet he gives equal place to universals in matters of knowledge. Because the universals and particulars are necessary for knowledge.

We may now summarise the results of our enquiry. We will state the general conclusion without repeating the argument. We had started our enquiry with some questions. The question was whether the generality of our experience, thought and language had any basis in outside reality, or, in other words, whether our classifications and the usage of general words had any objective foundation, or not. In this connection, we have examined several theories advocated by different system of thought and by different philosophers, but found none of them to be entirely satisfactory.

Plato, Aristotle and his followers are the advocates of Realism. This theory asserts that 'humanity' and 'redness', for example, are not entities different from particular human beings, and particular red objects but essences immanent in them. It is by virtue of these essences they remain what they are. But there are some objections against the theory. Firstly, there is no evidence for the existence of such essence as the immanent characters of particular things. They are neither observable nor even conceptually separable from the general features possessed by the particulars. And secondly, there would be no difficulty if such essences were really there and discoverable by us. As Locke, pointed out that it is hard to assign a particular thing or a quality to a determinate class.

As the Realism does not provide a complete theory of universals, so also the Conceptualism and Nominalism. ✓ Locke, and his followers advocate conceptualism, while Hobbes advocates moderate nominalism. Both of them accepted only resemblance but not identities. Both the conceptualism and moderate nominalism rest on the same ontology, the ontology of particulars having different degrees of resemblance to one another.

According to Modern Empiricist, the resemblances are ultimate, and these resemblances form the bases of classifications and usage of words. On the other hand, Russell asserts that identities or universals, can only be regarded as the bases of our general conceptions. Thus, we have found both these views to be only partially justified. Because the Resemblance view does not do justice to the observed identities. For the recognition identical qualities and relation have the equal claim. Thus, many of our classifications are based on observed identities. In the same way, realist's view fails to do justice to the observed resemblance which do not involve any discoverable identities. Such resemblances are ultimate and they form the bases of many of our classifications. The Realist's contention that all resemblance is derivative, that is, they are based on some identity, was found to be untenable. The modern Empiricist takes an extreme view by holding that ultimate resemblances are the sole ground of all classifications, and they deny all the identities. Similarly, the realists take an extreme point, when they declare that some kind of identity alone can be regarded as the ground of all classification. And they hold that all resemblances to be derivative. But we will say that both the views are erroneous. Because neither resemblance nor identities alone, can explain all our classifica-

tions. Therefore, we should combine both of them in a single comprehensive view in order to give a satisfactory answer to the problem of universals.

Thus, we have maintained that there are identical qualities and relations which occur over and over again in our experience. In the same way, there are also resemblances - resembling qualities, resembling objects, resembling situations - which repeat themselves in innumerable instances. All these occurrences involve universals. Since by the term universal, we understand recurrence, thus to us, it is not only applicable to identical qualities and relations, but also to similarities. These recurrent identities and similarities are the principles of grouping, they form the foundations of our thought and speech. Though the apprehension of recurrence involves the operation of mind, but all mental activities are not creative. Mind is the main instrument for discovery. If the observed recurrence would have been the creation of the mind, then there would not have any universal at all in the world. Because, then there could not be any conceptual knowledge of the world at all, since concepts, in that case, would be pure fabrications of the mind, then it would have nothing to do with the external reality. And in that case, all conceptual knowledge would

be completely erroneous. The intuitions or sensations, which are free from the operation of the mind, would be true. But thought and speech, which are the acts of mind would be completely divorced from reality. There is neither a common knowledge nor any communication of thought. All belief in common understanding and agreement would be completely erroneous. Thus, we are getting a strong enough reason to reject the premises from which they follow. Thus, both identity and resemblance theories fail to do justice to our valid empirical knowledge. Both Resemblance and Identity theory are unsatisfactory.

Lastly, we come to the conclusion that the universals which we have held cannot be identified with any of the traditional theories. We have gone beyond realism when we recognise that the similarities too are the principle of classification. In the same way, we have rejected both conceptualism and nominalism when we recognise identical qualities and relations along with similarities are the principle of grouping. Our conclusion then is that a universal is a principle of grouping or classifying.

Philosophers are free to define the word universal according to their own choice. Some philosophers advocated that the 'universal' is a 'common quality'. In a narrower

sense the term 'common quality' means identical qualities or relations. And in a wider sense it means resemblance. And in both the cases the universal is a natural recurrence. But it is inadequate to say that ultramarine, for example, is a universal, in the sense of being a common quality. It is inadequate to say that the ultramarine is a universal, because it has common quality, but it leaves something important unsaid, that is, since it is a common quality it can be used as a principle of grouping. This principle of grouping is also a part of what is meant when we say that ultramarine is a universal. Thus ultramarine is a universal as being a natural recurrence and also as being a principle of grouping. Now the question arise: what is universal? The universals are natural recurrences, universals are principles of grouping or classifying. Thus, our view may be called realistic; as it is on the side of realism, it insists on some kind of objective basis for our empirical concepts. Because our thinking is always linked to the experienced world.

CHAPTER III

REFERENCE AND PREDICATION

REFERENCE AND PREDICATION

In the notation of current logic the distinction between singular reference and predication is given a fundamental place. The notions of predication are invoked to characterise a number of configurations in ontology, in the theory of knowledge in logic, and in the analysis of language. Particulars are supposed to have universals predicated of them. And correspondingly in singular judgements we are supposed to be subsuming particular under concepts. In logic the appropriate combination of singular terms (individual constants) and predicate letters yields sentences of predicate form. In grammar one important way of parsing sentences of natural language breaks them into subject and predicate expressions. Moreover, these configurations corresponding to different senses of "predicate". It has been claimed, to be the fundamental combinations of elements of reality, mental contents, logic and language respectively.

Before I give a brief but unargued outline of the above mentioned sections, it would be useful to indicate the scope of philosophy of language in general by bringing

out the distinction between philosophy of language and Linguistic Philosophy. Linguistic Philosophy consists in the attempt to solve philosophical problems by analysing the meaning of words and the logical relations between words in natural languages. While the philosophy of language consists in the attempt to analyse certain general features of language such as meaning, reference, truth, verification, speech acts and logical necessity. Moreover, Linguistic Philosophy is 'primarily a philosophical method while Philosophy of Language is a subject matter within Philosophy. Philosophers of language are broadly divided into two groups, namely, philosophers of ideal language and philosophers of ordinary language. M. Schlick, R. Carnap, B. Russell and A.J. Ayer are considered to be important philosophers of ideal language. While L. Wittgenstein, J. L. Austin, G. Frege, W.V.O. Quine and P.F. Strawson are generally regarded as the philosophers of ordinary language. The philosophers of ideal language opine that since ordinary language is full of ambiguities, there is a genuine need to have an ideal language without any ambiguity to do philosophy. The philosophers of ordinary language, on the other hand, claim that ordinary language will suffice for doing philosophy. Philosophy of language is mainly a twentieth century phenomenon. However, it would be erroneous to

conclude that traditional philosophers like Plato, Aristotle, Augustine, Aquinas, Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume, Kant and Hegel do not have their philosophy of Language. For example, where in his dialogue Phaedo, Plato advances the theory that general terms get their meaning by standing for Forms.

If language is to be used to communicate about the world, it is not only that our words have meaning. We also require, some of the words which can be used to refer to things around us. By language each symbol is defined in terms of other symbols. But if my language does not refer to anything beyond other expressions, my 'language' would be useless for communicating about the world. Thus to understand language, it is necessary to understand reference and predication as it is to understand meaning. Reference and Predication are the most basic tasks to which language is put. In the simple sentences we first refer to something and then describe what we have referred to. In the sentence "John is honest", I first refer, and then I predicate.

The notion of reference, in particular, has always fascinated linguists, logicians and philosophers. Moreover, philosophers are interested in reference, because in referring, words relate directly to the world,

and any thesis about reference is also going to be a thesis about what there is in existence to refer to. In this century philosophical schools have been founded upon doctrines about reference - particularly so-called 'logical atomism', which I shall return to.

Let us now consider the position of Plato vis-a-vis the copula in order to elucidate as to how Plato takes the problem of predication. In order to discuss the copula, Plato uses four different uses of the verb 'to be' which are as follows: (1) It has an existential use that is, it is used existentially. For example, "Being is" means "Being exists". (2) It is used to assert a certain connection between two concepts. The philosopher's formulation contains not only the names of two concepts but also a word indicating their coherence, which is not itself the name of a concept but signifies the connection between the named concepts. For example, 'A triangle is non-square'. Here, it may be noted that the verb 'to be' does not have an existential meaning, but it asserts a certain sort of connection between the concept of a "triangle" and the concept of a "non-square". (3) It is used as a copula. For example, "Socrates is a man". Here, the verb 'to be', 'is' is a copula, and it indicates that the subject concept 'Socrates' faces under the predicate

concept 'man', and (4) It is used as an identity sign or sign of difference. For example, (i) 'It is Socrates', and (ii) 'It is not Socrates'. In (i) the verb 'to be', 'is' is a sign of identity, and in (ii) it is used as a sign of difference consider how Plato deals with the following pair of statements, (a) 'change is the same' and (b) 'change is not the same'. Plato points out that though these two statements seem to contradict one other, yet we want to assert both. Analysis of the statements will show exactly what is being asserted in each, and enable us to see that there is no contradiction between them when properly understood. The first statement means, 'change shares in sameness'. While the second means, 'change shares in difference with respect to the same'. The following are the essential points in Plato's analysis of these two statements. In the first statement, the verb 'to be' is used as mere copula. It merely indicates that the subject-concept 'change' falls under the predicate concept "sameness". In the second statement, the verb 'to be' is not used as a copula, but as the sign of difference. The verb 'to be' here expressed the concept of difference, and at the same time indicates that something falls under the concept of difference.

With Plato's procedure mentioned above one may

compare it with Frege. Frege opines that one can just as well assert of anything that it is Alexander the Great, or is the number four, or in the planet venus, as that it is green or is a mammal. But Frege, points out that while making such assertions one must distinguish two different usages of 'is'. He explains these two different usages of 'is' as follows. I quote Frege.

In the last two examples it serves as a copula, as a mere verbal sign of predication. We are here saying that something falls under a concept, and the grammatical predicate stands for this concept. In the first-three examples, on the other hand, 'is' is used like the 'equals' sign in arithmetic, to express an equation In the sentence 'the morning star is venus' 'is' is obviously not the mere copula; its content is an essential part of the predicate, so that the word 'venus' does not constitute the whole of the predicate. One might say instead: "the morning star is no other than venus". What was previously implicit in the single word 'is' is here set forth in four separate words and in 'is no other than' the word 'is' now really is the mere copula. What is predicated here is not venus but no other than venus. These words stand for a concept.¹

Ackrill is worth quoting here. He says: "In offering the analyses that he (Plato) does it seem to me, no less clearly than Frege is engaged in distinguishing senses of 'is'.²

1. quoted in Plato, Vol. I, George Vlastos (ed.), Anchor Books Double Day and Company, Inc., Garden City, New York, 1971, p. 213.

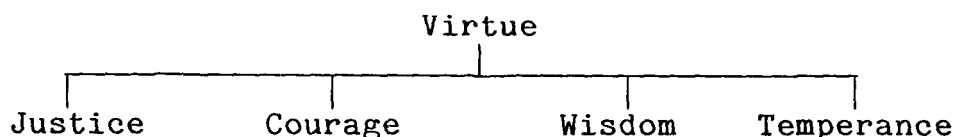
2. Ackrill, J.L. op.cit., p. 214.

Does the copula play any role in Plato's scheme of the relation of Forms? Cornford answers in the negative in his book, 'Plato's Theory of knowledge'. He says that the copula 'has no place anywhere in Plato's scheme of the relation of Forms.'³ According to him, the relation that obtains amongst Forms is a symmetrical relation. Therefore, he comes to the conclusion that the said relation cannot be the same as that of the relation of subject to predicate in an attributive statement. This conclusion of Cornford categorically states that such a relation cannot be the relation indicated by the copula. However, he agrees that the philosopher's task, according to Plato, is to discern clearly the hierarchy of Forms... and make out its articulate structure.⁴ This means that every statement that the philosopher makes in performing this task may be expected to assert some connection or association between Forms. And 'association' is indeed a symmetrical relation. But surely the philosopher could not possibly achieve his purpose without specifying the kind of association there is in each case. And he could not do this without bringing in some non-symmetrical relations. One such non-symmetrical relation is the relation indicated by the copula.

3. Cornford, F.M. Plato's Theory of Knowledge (London, 1935), p. 279.

4. Ibid., pp. 236-64.

Consider the following small extract form a possible 'map of Forms.'



In order to describe the above given structure, the philosopher must make use of non-symmetrical relationship. The terms 'virtue' and 'justice' are not merely close together; one is under the other. For example, 'Justice is a kind of Virtue'. Here, the concept of 'Justice' falls under the concept of 'Virtue'. 'Virtue' being much wider than that of 'Justice'. Similarly, 'Virtue' and 'Justice' are not merely connected; they are connected in a particular way, that is, in the relationship of class to a species. This explanation holds equally good for the relationships that obtain between 'Virtue' and 'Temperance'.

Finally, a few lines about the relation between 'what is not' and 'nothing' in order to explicate as to how Plato handles the problem of reference. In the considered opinion of Parmenides⁵ one can neither distinguish

5. Parmenides was a contemporary of Plato. He advocated Monism according to which there is only one reality. He denies the plurality of being in the following way. Being cannot be many because if it were, it would be like and unlike at the same time, which is impossible. Thus he tries to show 'Reductio and impossible' of the Plurality of being.

nor could he express 'what is not': This means that Parmenides equates 'what is not' with 'nothing'. For him, to say, 'No mermaid exists' would mean 'Nothing is a mermaid'. Nor does he hold that 'what is not' is neither distinguishable nor is it expressive. This goes to show that in the view of Plato, 'what is not' is distinguishable as well as expressible. Likewise, for Plato, not-being (non-being) is distinguishable from being as well as capable of being expressed.

Plato says that his problem about not-being comes from understanding 'not' is a certain, which is as follows. With the verb 'to be' the negative construction not only does not mean the contrary but also it cannot be applied to anything in the contrary state. It may be noted here that in Greek language the negation - sign is commonly predicated to the verb. However, it can also be shifted to precede and modify other parts of the sentence. Thus, the two sentences, namely, (i) 'this not is white', and (ii) 'this is not-white' can be distinguished from each other. In (i) the negative-sign modifies the verb and so imparts the notion of not-being while in (ii) it modifies the adjective and so imparts the notion of not-white. In (ii) the effect of the negative sign is not to produce an expression meaning the contrary of the negated

term. This means that calling a thing 'not-white' does not relegate it to the other extreme, namely black. Likewise, in (i) saying that it 'not-is' does not relegate it to another extreme from being. All this goes to show that according to Plato 'not-being' does refer - it refers to something. This leads to the conclusion that the Sophist is primarily an essay in problems of predication and reference and in the incomplete uses of the verb associated with these.

Quine distinguishes singular terms from general terms. He speaks of different 'positions' which terms may occupy in sentence, as a referential and of predicative positions.

M.V.O. Quine distinguishes between definite and indefinite singular terms. By definite singular terms he means a definite particular being. As for example, term 'Leo', 'that lion', 'the lion', and sometimes 'he' and 'it'. The examples of indefinite singular terms are 'everything', 'something', 'every lion', 'he' and 'it'. The examples of indefinite singular terms are 'everything', 'something', 'every lion', 'some lion'. Definite singular terms are singular terms in the primary sense, but the indefinite singular terms are singular only in a secondary or derivative sense.

According to Quine, there is a role or function between indefinite singular terms and general terms in predicative position. Quine has given an example of such sentence "A comet was observed by astronomers tonight", containing one indefinite singular term and one composite general term in predicative position. It is true, only if there is an object, any object to which both terms apply; otherwise false. The term "a comet" is formally like a definite singular term, which has occupied the position of subject to the predicative copula. It is formally unlike general term in predicative position is that it has no predicative copula prefixed to it and does not itself possess the form of a verb. It does differ from general term, as for, "everything' and 'something'.

According to Quine, predication joins a general term and a singular term to form a sentence. In the successful predication, the singular term refers to its object, while the general term is true of it. But he contradicts himself by saying that "Pegasus" counts as a singular term; though it is not true of anything.

In Quine's view, there are some predications where singular and general term are alike. As for example, "The picture is valuable". Here the singular term is used for the purpose of identifying the object, of bringing it

about that the hearer knows which or what object is in question.

Reference and Predicative position in account of Quine is that:

Referential position is the position primarily and fundamentally occupied by a term definitely identifying a spatio-temporal particular in a sentence coupling that term to another signifying a property - like or kind like principle of grouping particulars. The particular identifying term is the primary case of a definite singular term. The other term occupies predicative position. Second referential position may be occupied by a term signifying a property - like or kind - like principle of grouping particulars provided that this term is itself coupled to another term which signifies a higher principle of grouping. The first of these terms is then a secondary case of a definite singular term. The other term again occupies predicative position. Finally, the position occupied by a definite singular term of any kind may be coherently yielded to a kind of term which does not characteristically have the identifying function of a definite singular term, and which is called an indefinite singular term.⁶

The above sentences of Quine has given a complete account of the distinction between referential and predicative position, between singular term and general term in predicative position.

6. P.F. Strawson (Ed.), Singular Terms and Predicative - Philosophical Logic, Oxford University Press, 1967.

According to many philosophers, definite descriptions are referring expressions. And singular reference can be made by definite descriptions. Some of them have gone further and maintained that only definite descriptions can be used to make singular reference. According to them, all expressions which are used as a singular reference are in fact a definite description though they may not appear so.

Gottlob Frege's view of definite description belongs with proper names like Ram, John, Smith. It belongs with proper names because the proper names have both sense and reference and they are determined by their sense. Sense says Frege, "is the mode of presentation of the object which is the reference of the expression whose sense it is."⁷ Though the proper names have both sense and reference even then the referential theory of meaning remains highly Problematic. Suppose in the example, "The present king of France is bald". Here in this example, the referential theory of meaning apparently renders it impossible to make a true negative existential claim, Because France is not presently monarchy. And if it is meaningful to say that 'the present king of France' does

7. Gottlob Frege, On Sense and Reference, in Translation from The Philosophical Writings of Gottlob Frege edited by Peter Geach and Max Black, 2nd Edition, Basil Blackwell, Oxford, 1960, p. 57.

not exist, then some object may be named by "the present king of France" must constitute the meaning of the term. And such an object must in some sense exist. Then to say 'the present king of France' does not exist, will render a negative existential claim false, because by that name an object surely has an existence.

Frege in his theory avoids violating the law of contradiction. In a denoting phrase Frege distinguishes two elements - the meaning and the denotation. For example, the centre of mass of the solar system at the beginning of twentieth century is complex in meaning and the solar system, twentieth century etc. are constituents of meaning. Here the denotation is a certain point is simple and denotation has no constituent at all when we analyse with Frege's view, there is a difficulty. If we say, 'The King of England is bald' here it is not a statement about complex meaning but it is a statement about the actual man denoted by meaning. But when we say, 'The King of France is bald' here it has the same meaning provided by 'the King of England' but it has no denotation in obvious sense. So it is not non-sensical that 'the King of France is bald' but it is plainly false. Thus, if we say denoting phrases have two sides of meaning and denotation, the cases where there seem to be no denotation, causes difficulties.

Expressions of different types, among which proper names have a peculiar and deserved prominence. They are used to perform the function of identifying reference to particular items in the world. Reference deals with the relation of words and the world. Sentences are combination of words, they are made up of words. Each word stands for an object or name of an object. The meaning of a word is the object for which it stands. We use the word "cat" to refer to cats, the word "run" refer to various acts of running and so on. To determine what a word means is to find out what things we use it to refer to. The referential theory cannot be the whole story, this theory can be applied only to a limited class of words and these words we call proper names. If I call my sister "Mary" and my dog "Polly" then I am referring to them by means of proper names, because they are used to label one thing only. 'One word' 'One thing' - this formula applies only to proper names. Proper names are clearly used to refer to individual things. But they are the only words that are used solely to refer. Most words do not refer to things at all not even if we use the word 'thing' in a very broad sense to include material object, animals, people, activities, qualities and relations. There are many words which clearly do not refer in any way at all. For example, conjunction, interjection, etc. 'oh', 'oha', 'hurrah' and

so on which do have a meaning of same sort but do not refer to any things, any qualities of things, any activities or any thing else that could be called things. These words are ordinarily used to express evoke feelings and attitudes. Again, there are certain words, 'for', 'and', 'as', 'or', 'but', 'because', 'not', 'yes', these words do not behave the way name behaves. They are used to introduce phrase and clauses, but they do not refer to things. Yet they do have meanings, and their meanings make a difference to the sentences in which they occur. Again, some words refer but their reference is not the same as their meanings. For example, the word 'I' changes its reference all the time when "John" uses it, it refers to John, when Smith uses it, it refers to Smith, and so on, for millions of users of the language. Yet the meaning of 'I' does not change these millions of times, it always has the same meaning. A person who uses it always talking about himself that is 'I' refers to speaker himself. Thus, while 'I' does refer, what it refers to constantly changes, so what it means cannot be the same as what it refers to. The same is true of 'this', 'that', 'here', 'how', etc.

In invoking the notion that the sense of a name cannot consist merely in its having the reference which it

does have, Frege is tacitly connecting the notion of sense with that of knowledge. According to Frege, sense is an ingredient in meaning, where meaning is that which a man knows when he understands a word. If the sense of a name consisted just in its having a certain reference, then anyone who understood the name would thereby know what object it stood for, and one who understood two names which had the same reference would know that they stood for the same object, and hence would know the truth of the statement of identity connecting them, which could, therefore, not be informative for him. From this it is understood that, if someone knows the senses of two words, and the two words have the same sense, he must know that they have the same sense. Hence, if the sense of a name consists merely in its reference, anyone who understands two names having the same referent must know that they have the same referent.

In grasping the sense of a proper name, it is not merely aware that the name is associated with a particular object as its referent, but also one can connect the name with a particular way of identifying an object as the referent of the name. Hence, two names may have the same referent but different senses. With the two names are associated different methods of identifying some object as

the referent of either name, although it happens that it is the same object which satisfies the two pairs of conditions of such identification. To Frege, names which could not even be analysed as the equivalents of complex terms, and which, therefore, had no more to their sense than just their possession of a particular reference.

The example which Frege gives in 'On Sense and Reference' of a pair of simple proper names having the same reference but manifestly different senses - the example of the terms 'the Morning Star' and 'the Evening Star'. The Morning Star names the same object as 'the Evening Star' namely, the planet Venus - but if the meaning of a term is the object which it names, then (1) The Morning Star is identical to the Evening Star, must be synonymous with, (2) The Morning Star is identical to the Morning Star.

Yet we say that (2) is a necessary and uninformative truth, while (1) reports a significant empirical discovery of early Babylonian astronomy.

If we keep these difficulties aside. The proper names and so-called definite descriptions, noun phrase of the form 'the such and such' - the referential theory of meaning remains highly problematic. Because there are ostensibly referential terms to which no object

corresponds. Let us take an example, "Pegasus has wings", whereas that Pegasus is entirely mythical. Again if we say "The present King of France is bald" given that France is not presently a monarchy. In the above examples, the referential theory of meaning apparently renders it impossible to make a true negative existential claim. Suppose we say, "The King of England is bald", here it is not a statement about complex meaning but it is a statement about the actual man denoted by meaning. But when we say, "the King of France is bald", here it has the same meaning provided by "the king of England", but it has no denotation in obvious sense. So it is not non-sensical that 'the king of France is bald' but it is plainly false. Because there is no king in France.

The problem which we have just seen arises naturally in considering the referential theory of meaning. It is important to note that in most part, they are independent of that theory in most part, they are independent of that theory and are not solved by its rejection. Now, the question arise if we cannot make assertions about the world by combining names of object, then how do we succeed in making such assertions? If the Morning Star and Evening Star means the same object the star Venus, then we can say Morning Star is identical to the Evening Star. But we

cannot say "The Morning Star is identical to the Morning Star". Then the question arises what does it say? Again if we say "Pegasus does not exist" and "The Present King of France is bald" are not respectively about Pegasus and the Present King of France. Because there is no such entity as Pegasus or the Present King of France. Then the question is, what are they about? Is it true or false? These are some of the major questions with which any theory of reference must come to grip. ' .

Russell is one who concentrates specifically on the status of ostensibly referential terms. Russell advances the important thesis that definite descriptions are incomplete symbols. By a description Russell means any phrase of the form 'a so and so' or 'the so and so'. A phrase of the form 'a so and so' he calls, 'ambiguous' or 'indefinite description' and a phrase of the form 'the so and so' (in the singular) definite description. Russell calls definite description as proper name.

By definite descriptions Russell means such phrases as "the author of Waverley", "the present king of France", "the tallest building in London" and so on - the phrases which purport to name one definite object and no other.

Many people assume that the meaning of any word or phrase is the object it names. For example, the word 'Socrates' names a certain man, that it means that man and thus he is the meaning of the word 'Socrates'. Russell says,

As to what one means by 'meaning'. I will give a few illustration. For instance, the word 'Socrates', you will say, means a certain man. The word 'mortal' means a certain quality, and the sentence 'Socrates is mortal' means a certain fact....⁸

If we accept this presuppositions that every word or phrase does name something then it leads to a difficulty. Because the phrase like 'the golden mountain', 'the Square Circle', etc. do not name anything. If a word or phrase stands for particular name, and if it is a proper name, a logically proper name, then the meaning of that word or phrase refers to that particular name. Russell gives an example of nouns. If a noun does in fact name a certain object then that object is its meaning and it has that meaning in all contexts.

Let us now return to Russell's ambiguous, and definite description. When I say, "I met a man". It is an

8. Bertrand Russell, The Philosophy of Logical Atomism, Reprinted in his Logic and Knowledge, Ed. by R.C. Marsh (New York: The MacMillan Company, 1956), p. 186.

ambiguous description. Because here I am asserting that "I met a man", here the term man does not mean a particular man rather it means an indefinite number of persons. Let us assume, for the moment, that my assertion is true, and that in fact, I met Jones. It may be the case that what I assert is not that "I met Jones". But I may say, "I met a man, but he is not Jones". Though I lie, but I do not contradict myself, because I am saying that "I met a man", whereas I do contradict myself if I say I met a man when I really mean that I met John.

We may go further not only to John but no actual man at all. The statement would remain significant, though it could not possibly be true, even if there were no man at all. According to Russell, the proposition 'I met a unicorn' is a significant proposition if we know what it would be to be a unicorn. Even the word 'unicorn' applies to no animals in the world, we know the meaning of the word because we came across unicorn and we know what calls a unicorn. Again, if we say "I met Jones" and "I met a man". Traditionally, these two different propositions regarded as the same form. But in actual fact they are of quite different forms. The first proposition "I met Jones" names an actual person, Jones. While the second proposition involves a propositional function. When we say "I met

a man", if the propositional function 'x is a human' is sometimes true and 'a so and so I met', if 'x is so and so' is sometimes true. This can be put in another way. The proposition "John is a man" is equivalent to "John is human". But both of them are not the same proposition. The 'is' of "John is human" is the relation between subject and predicate and the 'is' of "John is a man" is the identity between an object and an object ambiguously described. An object ambiguously described will exist when at least one such proposition is true i.e., when there is at least one true proposition of the form 'x is a so and so' where 'x' is a name. It is characteristic of ambiguous as opposed to definite description. There may be any number of true propositions of the above form - John is a man, Plato is a man, etc. Thus, when I say, "I met a man" follows from John, Plato, or anyone else. On the other hand, if it would have definite description, then its corresponding form of proposition, namely, "x is the so-and-so" where "x" is the name of a particular person. And it can only be true for one value of x at most. This brings us to the subject of definite description.

By description, Russell means a definite description. Thus, by description he means any phrase of the form 'the so and so' in the singular. An object is 'known by

description' when we know that it is 'the so and so' that is when we know that there is an object and no more, having a certain property and it is implied that we do not have knowledge of the same object by acquaintance. For example, we know that the candidate who gets the most votes. But we do not know which of the candidate he is. That means we do not know any proposition of the form "x is the candidate who will get most votes", here we know x is one of the candidate by name, that is, "merely descriptive knowledge" of the so-and-so. Here, though we know that the so-and-so exists and we may possibly be acquainted with the object which is in fact, the so and so. Yet we do not know any proposition 'x is the so-and so'. When we say 'the so-and-so exists' we mean that there is just one object which is 'the so and so' when we say "Mr. x is the union candidate for this constituency" we mean that "Mr. x is the union candidate for this constituency" and no one else 'is'. Thus, when we are acquainted with an object which is the so and so we know that the so and so exists, but we know that the so-and-so exists when we are acquainted with any object which we know to be the so and so, and even when we are not acquainted with any object which, in fact, is the so and so.

This "the so and so" may be demonstrated by a consideration of the difference between a name and a

definite description. Let us take the example, "Scott is the author of Waverley". Here, we apply the name 'Scott' and the description 'the author of Waverley' to the same person. But there is a distinction between name and other symbols. A name is a simple symbol whose meaning is something that can only occur as subject, again a simple symbol is one which has no parts. This, 'Scott' is a simple symbol. So we have two things to compare: (a) name, and (b) the description. A name is a simple symbol which directly designates an individual which is its meaning and a description which consists of several words, and whose meanings are already fixed.

A proposition containing a description is not identical with what that proposition becomes when a name is substituted. The assumption the definite descriptions are proper names cannot be accepted. Let us take the following two examples, namely, (a) "Scott is the author of Waverley", (b) Scott is Scott. These are two different propositions, because a proposition containing a description is not identical with what that proposition becomes when a name is substituted even though the name, names the same object as the description describes. In case of "Scott is the author of Waverley" if we put any one else other than Scott, and instead of "author of Waverley" if

we put any proposition, then our proposition will become false. Because it would no longer remain the same proposition. But our proposition is essentially of the same form if we say "Scott is Sir Walter" in which the two names apply to the same person. If "Scott is Sir Walter" really means the person named 'Scott' is the same person named 'Sir Walter', then the names are being used as descriptions. It means that instead of being named, the individual is being described as 'the person having that name. So long as names are used as names 'Scott is Sir Walter' is the same trivial proposition as "Scott is Scott". Let us talk of law of identity that $x = x$. Here we may substitute for "x" any name we choose and we shall obtain a true proposition. Let us suppose that 'Socrates', 'Aristotle', 'Plato' and so on are the substitute of 'x'. According to the law of identity, we can infer that Socrates is Socrates, Plato is Plato, and Aristotle is Aristotle. But we cannot apply this law of identity so far the author of Waverly is concerned. Because we cannot say author of Waverley is author of Waverley. From this it is proved that if we substitute a name for "the author of Waverley" then the new proposition obtained will be a different one. In fact, in the propositions of the form 'the so and so, the so and so, are not always true. It is necessary that the so and so must exist. Thus, 'the

present king of France is the present king of France', 'the round square is round square' is always false. When we substitute a description for a name, propositional function which are always true may become false, if the description describes nothing. Russell says, take for example the following proposition: "Scott is the author of Waverley" - This proposition expresses an identity, thus, if "the author of Waverley" could be taken as a proper name and supposed to stand for some object *c*, the proposition would be 'Scott is *c*'. But if *c* is any one except Scott, this proposition is false, while if *c* is Scott, the proposition is 'Scott is Scott' which is trivial and plainly different from 'Scott is the author of Waverley'.⁹

We are now in a position to define propositions in which a definite description occurs. Definite description in isolation have no meaning but sentences containing them may have a perfectly good meaning. We cannot speak about "the present king of France", because there is no king in France. But we can speak about "the present king of England". In the same way a proposition as "Scott is the author of Waverley" could not be true if Waverley had never written it, or if several people had written

9. Russell and Whitehead, Principia Mathematica, 1, Second Edition (London: Cambridge University Press, 1925).

it. But we may say that "the author of Waverley" means "the value of x for which ' x wrote Waverley' is true". Russell claims that if we complete the proposition expressed by such a sentence for example, "the author of Waverley is Scott", and we can see that it is a complex one which contains three constituent propositions. They are:

- (a) at least one person wrpte Waverley;
- (b) at most one person wrote Waverley.
- (c) who ever wrote Waverley was Scott.

All these three propositions together implied that "the author of Waverley was Scott". But if we leave any one of them and take any two of them it will not imply the same. Conversely, the three together imply that the author of Waverley was Scott.

From this we can say that though the proposition "the present king of France is bald" is meaningful but it is false. Because the first part of their analysis is false, that is, (a) there is at least one person who is the present king of France. Since the part (a) of their analysis is false, it makes the whole proposition false.

From the above description we can that, Russell commonly uses the word "meaning" in the sense of "reference". Thus, "Napoleon means a certain individual" and

"Man means a whole class of such particulars as have proper names".

P.F. Strawson while whole heartedly supports Russell's intentions and appreciates his "feeling for reality", but Strawson says that Russell's theory of description should be rejected as it is based on certain misconceptions and confusion. Strawson's 'on referring' is the most famous challenge which has been directed against Russell's theory of descriptions.

Strawson says that Russell made at least two mistakes. He did not fully realise that a sentence can have variety of uses and he mistakenly thought that every meaningful sentence must be either true or false. Strawson says that we commonly use expressions of certain kinds to mention or refer to some individual person or single object or particular event or place or process. These expressions according to him, have a particular use which he calls "uniquely referring use". There are mainly four classes of such expressions which have uniquely referring use. They are as follows:

- (a) Singular Demonstrative Pronouns (this and that).
- (b) Pronouns (London, Napoleon, John).

(c) Singular Personal Pronouns (she, he, I).
Singular Impersonal Pronoun (it).

(d) And the phrases beginning with the definite article followed by a noun qualified or unqualified, in the Singular (e.g., the table, the old man, the King of France.

But Strawson does not say that these phrases have only one use, rather they have other uses too. Let us take the following two sentences (i) the whale is a mammal, and (ii) the whale struck the ship. In the first sentence 'the whale is a mammal', we are not mentioning any particular whale. But when we say 'the whale struck the ship', here we are using each of the expressions in the uniquely referring way, because the expressions 'the whale' and 'the ship' is mentioning a particular object. Again, if one utters the sentence "Napoleon was the greatest French soldier", here, we have used the word "Napoleon" to mention certain individual. But if we use the phrase "the greatest French soldier" here obviously we are not mentioning a particular individual, rather it includes all the greatest soldier of France. But in the former sentence, we are talking about Napoleon and that we are saying about him that he is a great French soldier. Here, we are using the expression in the uniquely referring way.

Russell in his theory of descriptions tries to solve some of the problems relating to the phrase of the form 'the so and so' when they occur as a subject in a singular subject-predicate sentence. As for example, 'the King of France is wise', is a significant sentence. But there is at present no King of France. Then how can it be a significant sentence, when there is nothing which answers to the description it contains. To avoid this difficulty, Russell says that 'the King of France is wise' has grammatically a subject and predicate. But it is not a logical subject-predicate sentence at all. That is, the subject in this sentence 'the King of France' is only a subject grammatically not logically. Strawson tries to find out that the implications of Russell's theory of descriptions in the following way: (1) In case of sentence like 'the King of France is wise' (a) which is grammatically of the subject-predicate form, (b) its grammatical subject does not refer to anything, the only alternative to its being meaningless is to take it to be not really of subject-predicate form at all. This in turn implies - (2) If there is a sentence which is genuinely of subject-predicate form (grammatically and logically) then there is something referred to by its logical subject. To have meaning it must refer to something. According to Russell, there are genuine subject-predicate sentence and in these

sentences 'logically proper names' occur as a subject. By logically proper names, Russell means the following things:

- (1) That they and they alone can occur as subject of sentence which are genuinely of a subject-predicate form.
- (2) That an expression intend to be a logically proper name is meaningless, unless there is some single object for which it stands, for the meaning of such an expression just is the individual object which the expression designates. To be a name at all, therefore, it must designate something.

According to Russell, only in two ways sentences which are about some particular person or individual object or event can be significant: (a) the misleading sentences like the discussed one, that is, the sentences which can be analysed as a special kind of existential sentences; (b) the sentences, with 'logically proper names' as their subjects.

Strawson tries to show that there are sentences which are significant, which begin with an uniquely referring way but which falls into neither of these

classes. Again, there are sentences which are about some particular person, etc. and which are significant but they are not analysable in the Russellian way nor their subject are 'logically proper name'.

In order to bring out Russell's confusion, Strawson draws some distinctions. These distinctions are very important because on them he builds up his whole arguments against Russell. Here, he refers to an expression which has a uniquely referring use as "an expression" and refers to a sentence beginning with such an expression as 'a sentence'. The distinction are between -

- (A₁) a sentence,
- (A₂) a use of a sentence,
- (A₃) an utterance of a sentence and correspondingly between,
- (B₁) an expression,
- (B₂) a use of an expression,
- (B₃) an utterance of an expression.

Let us take the sentence 'the King of France is wise'. This sentence, I may utter at various times. That it is correct to utter the sentence during the reigns of the French monarch and also it is very natural to utter on various occasions at various times. This one and the same

sentence may be uttered at various times. This one and the same sentence stands for a 'sentence'.

There are obvious differences between different occasions of the use of this one and the same sentences. One may utter it in the reign of Louis XIV would make a true assertion whereas another man may utter it in the reign of Louis XV and would make a false assertion. Here, though the sentence is same but it has got different uses. But if these two different men utter the sentence simultaneously, that is, if one of them write it down and one utters it, during the reign of Louis XIV. Then it would be natural to assume that they are both talking about the same person. Here either both of them made true assertion or either they made a false assertion, because they made the same use of the same sentence. Thus, we cannot talk of the sentence being true or false, but when a sentence being used it makes a true or false assertion. So sentence does not say anything about a person because it can be applied to many persons. To talk about a particular person depends on the use of the sentence. Similarly, mentioning or referring is a characteristic of a use of an expression, just as "being about" something, and truth - or - falsity, are characteristics of a use of a sentence.

In the article "On Referring", Strawson says:

Meaning is a function of sentence or expression, mentioning and referring and truth or falsity are functions of the use of the sentence or expression. Meaning simply consists of general directions for use either to refer (in case of a sentence). It consists of rules, habits, conventions governing its (expression on sentence), correct use on all occasions to refer or to assert.¹⁰

According to Strawson, Russell has done a mistake by holding that referring or mentioning must have meaning. Strawson says that Russell could not distinguish between expression from the use of an expression. He confused expression with their use and meaning with mentioning. Suppose, I talk about my handkerchief, then I can produce the object I am referring to out of my pocket, but I cannot produce the meaning of the expression "my handkerchief" out of my pocket. People use expressions to refer to particular things. But meaning of an expression is not the set of things or the single thing it may correctly be used to refer to, the meaning is the set of rules, habits, conventions to its use in referring.

Strawson says that, Russell fails to notice the particular use of a sentence. He meant to say that Russell does not understand whether the sentence present use is

10. P.F. Strawson, "On Referring", 1950. Mind 59, Reprinted in Flew, 1956.

genuine or a spurious one, that is, whether it is used to talk about something or it is just used to make believe. Suppose, if today someone utters the sentence 'the King of France is wise', then the sentence uttered by the man is neither true nor false. Because at present there is no king of France. It is a pseudo use of the sentence. We simply have to say that there is no king in France. Truth and Falsity are properties of a sentence when it is genuinely used. The sentence "The 'King of France is wise'" is certainly significant, but it does not mean that any particular use of it is true or false, rather his utterance would in some sense be evidence that he believes that there is a king of France. But the sentence 'the King of France is wise' is not meaningless. Even it is significant when it is uttered. Only thing is that we fail to say anything true or false, because we simply fail to mention anybody by this particular use of that perfectly significant phrase. Though we think that the use of the sentence is a genuine one, but it is a spurious use of the sentence, and also it is a spurious use of the expression.

According to Strawson, there are two sets of rules, one set of rule is referring or mentioning and other set of rule is attributing or describing. One of the main purposes of language is to state the facts about

things, persons and events. In order to state the facts of the world, we must take care of two questions, "what (who, which one) are we talking about?" "what all we saying about it (him, her)?" The first question is about the referring task or identifying task and second question takes care of attributing, or descriptive or classificatory task. Strawson says that usually the subject of a sentence takes care of referring task of identifying task and predicate takes care of descriptive task. But there is nothing very sacred about the employment of separable expressions for these two tasks. Strawson says that to perform the first task is to use an expression in uniquely referring way. But the question arises, how do we perform this? In order to make a unique reference certain devices are necessary for showing that a unique reference is intended and what unique reference it is. In securing this result the context of utterance is of primary importance. By 'context' Strawson means the time, the place, the situation, the identity of the speaker, the subjects from which the immediate focus interest and the personal histories of both the speaker and those he is addressing. There is linguistic communication. All these contextual conditions are conventionally required for the correct referring use of expressions. The requirement for the correct application of an expression in its ascriptive use

to a certain thing should be of a certain kind, have certain characteristics.

When a man uses the sentence "The King of France", the expression does not assert, nor does what he says entail, a uniquely existential proposition, rather of the beginning of a sentence in some sense it "imply", to imply that there was a king of France. Now, whenever a man uses any expression, the presumption is that he thinks he is using it correctly; so when he uses the expression, "the such-and-such", in a uniquely referring way, the presumption is that he thinks both that there is some individual of that species, and that the context of use will sufficiently determine which one he has in mind. If one begins a sentence with an expression of the form "the so-and-so", and then prevented for saying any more, then he may be succeeded in mentioning someone or something but it does not make any statement of any kind.

The fulfilment of the conditions for a correct referring use of an expression is never part of what is stated, though it is implied by such a use. The meaning of an expression is the definition of that expression. A definition is a specification of the conditions of the correct ascriptive use of an expression we reach at it through analysis. Russell fails to notice that problems of

use are wider than problem of analysis and meaning. Russell tries to make the uniqueness of unique and existence of matter of logic and language but failed. Strawson says that expressions which have uniquely referring use differ in their descriptive use. Russell's reply to Strawson's "On Referring" first appeared in Mind 1957. Strawson identifies two problems, namely, problem of descriptions and problem of egocentricity. Russell says that Strawson considers with these problems to be different problems, because he has dealt with them separately. This enables Strawson to pretend that Russell has overlooked the problem of egocentricity.

In his theory of descriptions, Russell dealt with two examples, "the present King of France is bald" and "Scott is the author of Waverley". The latter example does not suit Strawson. As regards the example "the present King of France", Strawson fastens upon the egocentric word 'present' and does not seem able to grasp that for the word "present" he substitutes the word "in 1905" the whole of Strawson's argument would have collapsed. According to Russell, it is not difficult to give other examples of the use of descriptive phrases from which ego-centricity is wholly absent. For example, 'the square root of minus one is half the square root of minus four' or "the cube of a

three is the integer immediately proceeding the second perfect number". There are no ego-centric words in either of these two sentences, but the problem of interpreting the descriptive phrase is exactly the same as it were.

Strawson does not say in his article where Russell considered egocentric words. He only says that such words are not an entirely correct statement that what they refer to depends upon when and where they are used. Russell says in Human Knowledge:

'This' denotes whatever, at the moment when the word is used, occupies the centre of attention. With words which are not egocentric. What is constant is something about the object indicated, but "this" denotes a different object on each occasion of its use; what is constant is not the object denoted, but its relation to the particular use of the word. Whenever the word is used, the person using it is attending to something, and the word indicates this something. When a word is not egocentric, there is no need to distinguish between different occasions when it is used, but we must make this distinction with egocentric words, since what they indicate is something having a given relation to the particular use of the word.¹¹

Russell wanted to say that the meaning of all empirical words depend ultimately upon ostensive

11. B. Russell, Human Knowledge - Its Scope and Limits, (A Touch Stone Book, 1948), p. 107.

definitions, that ostensive definitions depend upon experience, and that experience is egocentric. We can, however, by means of egocentric words, describe something which is not egocentric; it is this that enables us to use a common language.

Strawson again says that, "there are no logically proper names and there are no description (in this sense)". Russell tried to explain the meaning of the word 'in this sense' which Strawson puts in the brackets. Russell says that what Strawson objects to, is the belief that there are words which are only significant because there is something that they mean, and if there were not this something they would be empty noises not words. If language has any relation to fact, then there must be such words to express it. The necessary for such words is made obvious by the process of ostensive definition. For example, how do we know what is meant by such words as 'red' and 'blue'? Unless we have not seen 'red' and 'blue' object, it is impossible for us to know what these words mean. If there were no blue and red objects in our experience, then we might perhaps invent some elaborate description which we could substitute for the 'red' or the word 'blue'. For example, if we are dealing with a blind man, we could hold a red hot poker near enough for him to

feel the heat and we could see, but of course, for the word 'see' we would have to substitute another elaborate description. To make the blind man understand about the description, the description would have to be in terms of words expressing experiences which he had, had it before. Unless fundamental words in the individuals vocabulary had this kind of direct relation to fact, language in general would have no such relation.

Some philosophers pointed out that common speech is good enough not only for daily life but also for philosophy. But Russell does not agree with this point. Russell says, common speech is full of vagueness and inaccuracy. To make this speech accurate, it requires modification of common speech both as regards vocabulary and as regards syntax. Everybody admits that physics, chemistry and medicine each has their own language, which is different from everyday life. Let us take an example, one of the commonest words of everyday speech namely, the word 'day'. Jews will define it as the period from one sunset to the next. Astronomer will give the definition of day in three different ways. According to Astronomer, there are three sorts of day - the true solar day, the mean solar day and the side real day. These three sorts of days have different uses - the true solar day is relevant

if we are considering lighting up time, the mean solar day is relevant if we are sentences to fourteen days without the option and the side real day is relevant if we are trying to estimate the influence of the tides in regarding the earth's rotation. All these three kinds of day - decalogical, true, mean and sidereal day are more precise than the common use of the word 'day'.

According to Russell, every significant sentence is either true or false. But according to Strawson, it may be either true or false. Let us take an example, that in some country there is law that no person can hold public office if he considers it false that the God is wise. Russell says that an avowed atheist who took advantage of Strawson's doctrine to say that it is not true. It is not only as to names and as to falsehood that Strawson shows his conviction but he shows the same feeling as regards universal affirmatives that is, sentences of the form 'All A is B'. Traditionally, such sentences are supposed to imply that there are A's, but it is much more convenient in mathematical logic to drop this implication and to consider that 'All A is B'. But Russell agrees with Strawson that ordinary language has no exact logic.

Keith, S. Donnellen has given different views about definite descriptions. According to Donnellen,

definite descriptions have two possible functions. These descriptions are used to refer to what a speaker wishes to talk about, and also they can be used quite differently. According to Russell, to use a definite description, a speaker may use an expression which denotes some entity and this is the only relationship between the entity and use of definite description recognised by him. But according to Donnellen, there are two uses of definite descriptions. Donnellen says that Russell's view of definite description, that the speaker uses the definite description to refer to something is known as "referential use" of a definite description. Donnellen calls the two uses of definite descriptions as the attributive use and the referential use. A speaker who uses a definite description attributively in an assertion states something about whoever or whatever is the so and so. A speaker who uses a definite description referentially in an assertion, on the other hand, uses the description to enable his audience to pick out whom or what he is talking about and states something about that person or thing. Let us take an example, "Smith's murderer is insane". In a quite ordinary sense we do not know who murdered Smith. According to Donnellen, this is an attributive use of definite description. Here in this case, speaker wishes to assert something about whoever and whatever fits that description. Again, let us suppose that John has been charged

with Smith's murder and has been placed on trial. From John's odd behaviour we might sum up our impression by saying that 'Smith's murderer is insane'. Here, if someone asks by this description, whom we are referring, our answer will naturally be the description about John. This kind of description according to Donnellan is referential use of definite description. Here we may point out one thing that the two uses of the same sentence will be quite different, if we take it a bit different way. Suppose in the example, "Smith's murderer is insane", if we assume that Smith had no murderer, but he had committed suicide. In using the definite description 'Smith's murderer' the speaker in some sense implies that there is a murderer. But when we suppose that this implication is false then there will be different result for two uses. In the first case, if there is no murderer then we need not have to attribute the predicate 'insanity' to anybody. In the second case, we are speaking about John's even though he is not in fact, Smith's murderer and it is his behaviour we are commenting upon. If a person hears our comment about that context, then he might have imagined that we are talking about John even though he does not think that John is guilty. In the referential use of a definite description, we may succeed in picking out a person or thing to ask a question about even though he or it does

not really fit the description. But in the attributive use if nothing fits the description then no straight forward answer for the question can be given. According to Donnellan, the important difference between the referential and attributive use lies in the beliefs of the speaker. In case of Smith's murderer, there is no certainty as to who did the deed, whereas in other case it was believed that John did it. But this is not an essential difference. It is possible for a definite description to be used attributively even though the speaker believes that a certain person or things fits the description. Similarly, it is also possible for a definite description to be used referentially where the speaker believes that nothing fits the description or does not believe that he is in a position to pick out what does fit the description. Again, if we suppose that John is the murderer, and also comment that any one who murdered poor Smith must be insane. If it turns out that John is not the murderer but someone else then my claim would be right if the true murderer is really an insane. Here, we are using definite description attributively even though we believe that particular person fits the description.

Both the attributive and the referential use of definite descriptions seem to carry a presupposition or

implication that there is something which fits the description though in two different ways. When a person uses a definite description referentially, he believes that what he wishes to refer to fits the description. Because the purpose of using the description is to get the audience to pick out or think of the right thing or person. When a definite description is used attributively, there is no chance of misdescription. Misdescription is that when one's reference mislead the audience. Suppose in the example of "Smith's murderer" used attributively, there is not the possibility of misdescribing John or anyone else. There is no possibility of misdescription, because we are not referring to John nor to anyone else by using the description. Here the presumption is that the speaker believes someone is the murderer of Smith. But there is no specific presumption that the speaker believes John or a particular person whom he can identify or name as Smith's murderer. Here, the speaker will not succeed in saying something true. If one states that Smith's murderer is insane, and where there is no murderer of Smith, and he uses the definite description non-referentially then one fails to say anything true. Or, if one issues the order to bring Smith's murderer, then he would not be able to obey the order, because there is nothing, which he could count as obeying it.

But in case of referential use, it is possible to say something true or to ask a question that get answered or to issue a command that gets obeyed. Because when the definite description is used referentially, then the people will come to know to whom the speaker is referring.

To sum up, I think referential theory succeeded in accounting for certain kinds of utterances. Though Strawson criticises Russell's theory of description, yet his criticism is not very strong. Strawson might mean that "uses" etc. are not attached to the expressions rather they change from time to time, place to place and from context to context. If this is so then expression will be syncategorematic in itself and depend on so many other things to become categorematic. They will wait for time, place, context etc. to get their meaning.

Again, Strawson says that there is a difference between a sentence and use of the sentence. Truth or falsity are properties of the use of sentence not of a sentence. He distinguishes an utterance of a sentence from its use. Every case of an utterance of a sentence is certainly a case of use of that sentence. How can a sentence remain separate from its use, because a sentence comes into being only when it is used. Though he divides 'uses' into two types - one spurious and the other genuine

one, but it is not very clear to us. Strawson has not succeeded to give any internal criticism of Russell's theory of descriptions. But he is successful in constructing his theory 'on referring' and there he rightly points out the importance of rules, habits, conventions, circumstances as they bear on one's referring act.

Strawson held that one can intend to refer to or to mention something but fail to do so. He talks about "spurious uses" of uniquely referring expressions; he says, for example:

... When we utter the sentence without in fact mentioning anybody by the use of the phrase, 'The King of France', the sentence does not cease to be significant. We simply fail to say anything true or false because we simply fail to mention anybody by this particular use of that perfectly significant phrase. It is, if you like, a spurious use of the sentence, and a spurious use of the expression¹²

Strawson also talks about "succeeding in mentioning somebody or something".

I think Strawson's accounts have gone wrong, because he has made too little change in Russell's theory regarding the ordinary use of this sort of referring expression. The first defect of Strawson's account is that

12. P.F. Strawson, "On Referring" in Mind, 1950, p. 35.

the ordinary distinction between failing to refer to or to mention something and referring to or mentioning something is not the distinction that Strawson draws. And secondly, in ordinary usage, referring is the same sort of thing, whether the thing referred to exists or does not exist, or is fictional or make - believe or whatever else it may be.

Strawson thought that it is possible to intend to refer to or to mention something and presumably, although he does not actually use this phrase, to try to refer to something, and then either to fail or succeed in referring to or in mentioning that something. But, I think it is possible to do these things, that is, these phrases do have a use, but that the ordinary use of these phrases is not the use that Strawson suggests that they have. Thus, the only way in which one can fail to refer or to mention something is either through (1) omitting to refer to or to mention the thing at all, or (2) mis-speaking, being interrupted, or not getting the words out. In the first case, one has not even tried to or to mention the thing in question and there is no correlative success in mentioning or referring to the thing; what is opposed to failing to mention something is actually mentioning it without actually doing so, etc. But as Strawson originally viewed the matter, one could fail to refer to something by using

some expression which could be used to refer to that thing if it existed but which failed to do so, since that thing actually did not exist, although one thought that it did. Now this situation sometimes occurs, and when it does really occur, we do not say that the person has failed to refer but rather we point out to the person that the thing does not exist. In the second case, one can fail to refer to or to mention something, he fails not because the thing does not exist, though he thinks it is for this. Rather, one fails because one does not even succeed in uttering the referring expression, a minimal condition for using it to refer to something. Thus, it is obviously irrelevant that the existence of the thing one would have to refer.

Now it is clear that these ordinary meanings of the phrase 'fail to refer' are not what Strawson has in mind. The usual phrase for what he does have in mind is 'referring to something that does not exist, and thinking that it does exist. This he would express in his terminology as 'intending to refer to something, but failing to do so' or as 'mistakenly thinking that one is referring when one is not referring to anything'. If one says, "The King of France is bald", one is not corrected by the remark that one is not referring to anything, but by the remark that there is no such person. In other words,

Strawson says that one is referring in the primary way when one is not.

I hope, from the above discussion it has shown that there is such a thing as reference. It also has shown the basic ingredients in that mechanism of language which is called 'reference'. Now it is necessary to know, how we bring our words down to earth and relate them directly to the world.

There is a class of words, like "The so and so" expressions, whose primary function is to refer to single particulars. These are proper names like 'Newton', 'Shillong', 'John' and so on. But not every referring expressions can be automatically applied to proper names. There is a traditional philosophical problem that arises in connection with proper names, which does not arise in connection with other referring expressions. The problem is that, some philosophers hold that proper names have meaning, while others hold that proper names do not have meaning. The problem of proper name is that can a proper name say, "Newton" means the same as some longer descriptive expression say "the greatest scientist who invented the law of gravitation", which alone applies to the thing referred to by the proper name? Or, can proper name be regarded as abbreviations of longer descriptive expres-

sions? Now, I will discuss how proper names function in view of different philosopher.

The view that proper names cannot mean the same as longer descriptive expression was advocated by John Stuart Mill, in his System of Logic. Mill says that proper names are "unmeaning marks, which have strictly speaking no signification".¹³ Firstly, he argues that even if a proper name was originally applied to something in virtue of some descriptive properties possessed by it, then this fact soon becomes irrelevant to how the proper name is to be used. Thus, 'Dartmouth' was originally applied to that town because it stood at the mouth of the river Dart. The town no longer stands at the mouth because of silting. Nevertheless, it is still perfectly correct to call the town "Dartmouth". In the same way name differs from meaningful expressions like 'the triangle'. We can refer to something as a triangle only if it continues to possess the special properties of a triangle. If it loses the particular qualities of a triangle, then we cannot call the figure a 'triangle'.

Secondly, Mill argues that, proper name do not express the properties. Because, just from a certain name,

13. A System of Logic. Longman Green, Reader & Dyer, 1886, p. 21.

it is not possible to infer what properties a person has. If all I know about a certain person is that his name is "John", or "so and so". Thus, I can know nothing else except his name. On the other hand, if I know that a figure is correctly called a "triangle", then I can easily infer the certain properties which the figure must possess. Since, according to Mill, to have meaning is to express properties, thus it follows that proper names do not have meaning.

The two arguments given above by Mill is not sound, rather it is extremely weak. Let us take an example the word "philosopher". The Greek words "philo" means love and 'sophia' means 'wisdom'. Thus philosopher originally applied to people who are 'lovers of wisdom'. Suppose Ram is a Professor of Philosophy, and instead of being the 'lovers of wisdom', he is motivated by love of money. Though he has been motivated by the love of money, but he does not cease to be a philosopher. In other words, there is no reason to suppose that proper names have no meaning just because the original reasons for their use cease to be reasons for their continued use.

In the second argument, he says that we cannot infer what properties one has, from the mere fact that he has a certain name. In the same way in the sentence, "He

has gone to the bank" does not allow us to infer what properties the place has. . . . Because the term "Bank" is ambiguous. It is not possible to infer the properties of the place, unless we know in which bank he has gone, whether it is a bank of river, or a commercial bank, or a blood bank. Similarly, anyone who holds, that proper names have meanings will admit that proper names are usually ambiguous. If we come to know which person or thing it refers to, then it is possible for us to infer the test of properties implied by the name. Just as we can easily list the properties expressed by "bank", if we know which sense of "bank" is meant. In the same way we can list the properties expressed by 'John' once we know which John is being referred to.

Though Mill's argument against the view that proper names have meaning, but there . . . also seem to be strong arguments in favour of saying that they have meanings. There is an example of it. If "Tully" and "Cicero" have no meaning, then they cannot differ in meaning. In that case we can say "Tully is Tully" and "Tully is Cicero", since they do not differ in meaning. The only difference between these two pairs of sentence is that one occurrence of "Tully" has been replaced by "Cicero". If they differ in meaning, then the first

utterance is trivial and uninformative. It might be that "Tully" means the same as "the greatest Roman Orator" and "Cicero" the same as "The author of the Laws". And when we are uttering Tully is Cicero, then it is giving us some information, it tells us the two descriptions apply to the same person.

From the above argument, it seems that proper names do have meanings. But it would have to be admitted, that proper names are ambiguous in at least two ways. Firstly, it seems that a proper name will mean something different each time, because a proper name applies to different individual in different time. Secondly, a proper name means the same as some descriptive expressions which applies to that individual. Since many descriptive expressions which will uniquely apply to that individual, so the proper name will have as many meanings as there are descriptive expressions applying uniquely to the individual. Let us take an example, "Napoleon" the descriptive expression which applies to him are "The French emperor who lost at Waterloo", "the French Emperor who married Josephine" etc. Though there are multiple ambiguity, even then we can successfully operate with proper names. In any way, it is better to say that a proper name has meaning, then like Mill to hold that they have no meanings.

There are good reasons for rejecting this view that proper names have meanings. One popular argument given by Mill is indecisive. If "Aristotle" meant 'the teacher of Alexander', 'the student of Plato' and 'the author of the Metaphysics who was born at Stagira'. If we take this descriptive expression as true, then it follows that Aristotle do not exist at all. Because so far no philosopher born at Stagira. In this case "Aristotle" cannot contain as part of its meaning "born at Stagira". And this descriptive expression which is not to be a fact at all and this make us refuse to apply the word "Aristotle".¹⁴ This argument is not so convincing. As it only shows that there are some descriptions which "Aristotle" cannot mean. But suppose we say that "Aristotle" means 'the man who possessed the properties like "Teacher of Alexander", 'the student of Plato', 'author of the Metaphysics', 'born at Stagira'. There is a sufficient number of properties which make us believe that he is the philosopher Aristotle of Greek. Here, there would be no contradiction in saying that Aristotle was not born at Stagira. Because it is not the only sufficient number of properties, which convince us that Aristotle does not exist. Being born at Stagira is not sufficient

14. J.R. Searle, Proper Names, Mind 57, 1958, pp. 166-73.

number of such properties. Because there are other properties which are believed to be the properties of Aristotle.

I think, there is at least one good reason. for denying that proper names have meaning. If we take an example, a name like "John", it will have a different meaning in different time, as it names a different person. Thus, the names have as many different meanings as there are things named but it does not hold good in the case of other referring expressions. The expression 'the king' means the same, whether it is being used to refer to Louis IV, or the king of France, or any other king in History. It is absurd to say that "the king" has as many meanings as there are kings actual or possible. Because if they do have meaning, then they must have it in a radically different manner from other referring expressions.

There is a relation between a proper name and a descriptive expression. When a speaker refers with a proper name, he does so with the willingness and ability to replace that proper name by some longer descriptive expression that which is uniquely applicable to the referent. We have to replace the proper name by the descriptive expression. When we explained how "the king" can be used to refer to just one individual. This depends on the speaker's being able to expand 'the king' into an

identifying expression. Like 'the king' if the speaker gives the expression, "the king of Macedon", "the son of Philip II" which applies to only one person. We can explain the relation between a proper name and an identifying expression in the same terms as we explained the relation between "the king" and 'the king of Macedon'.

Another philosopher who denies that proper names have meaning is Kripke. According to him, proper names are "rigid designators" that is to say, they have the same reference in all possible worlds. For example, the name Aristotle designates the very same individual in all possible worlds. And the definite description "the greatest man who studied under Plato", designates Aristotle in the actual worlds. But it may also designate some other individual in other possible worlds. Because it is possible that Aristotle should not have studied under Plato. He says that a proper name simply designates a specific individual, and since it does not describe that individual, it designates it.

Kripke does not deny that the reference of a name may be fixed by means of a definite description. By definite description one might introduce a name to denote the referent, in the actual world. He denies that the definite descriptive gives the sense of the name. Some

definite description as "the first dog go to sea" the referent is fixed to the dog "Fido". 'Fido' presumably might not have been the first dog to go to sea, rather the description 'the first dog go to sea' designates a different dog. But the very dog 'Fido' still designates Fido, that is, the dog, in the actual world, who was the first to go to sea.

Here in this explanation, Kripke wants to explain how a speaker can use a name correctly even though he is quite unable to give a description that applies uniquely to the individual named. According to Kripke, a speaker uses a name correctly if there is a suitable means of communication. Let us take an example, a child born, his parents give him a name, 'David', he became a physicist, he writes paper, where the people meet him, and read about him. when a speaker uses the name 'David' correctly to refer to David, it depends on the use of this name and is causally linked in an appropriate way to the chain of communication which refers to David only. When a speaker uses a word "Julius Caesar" and give the description that "who has been killed in his court" then it obviously refer to the hero of the Shakespear's novel 'Julius Caesar'.

According to Kripke, the criteria for correct use

of a name depends on his use of the name be appropriately connected with that individual. And if I fix the reference of a proper name by means of a definite description, which designate nothing, which in fact, though I do not know, and since there is no bearer then, there cannot be any appropriate causal chain to the bearer of the name.

Frege, regards proper names as having sense as well as reference. By 'Proper Name', Frege understood both ordinary man and definite description. And he says that the sense of an ordinary name with the sense of a definite description refers to the same object. Frege realises that different people may attach different meanings to a name, depending on what they know about the person named. He says if the reference remains same then this variation of sense is nothing. This brings an objection against the sense of an expression that the sense varied from person to person, this is quite surprising.

Three different principles govern Frege's way of using the notion of the reference of a name. Firstly, the reference of a name what is designated by it. Secondly, the reference of a name plays a role in the epistemic use of the sentence containing it, that is, in determining the truth value of that sentence. Finally, the reference of a name is whatever the predicate is supposed to apply to.

Thus, Frege's account of the notion of reference of a name connects the semantic relation of designation between a name and an object with the role of a name plays for the determination of the truth value of the sentence within which the name occur.

Like Frege, Russell also identifies the meaning of ordinary proper names with the meaning of some relevant definite description. And Russell, like Frege, holds that name have a different meaning for different speakers.

However, Russell distinguishes a special category of logically proper names. By logically proper name, Russell equates meaning and reference, that is, its role is purely to denote a simple object and the meaning of which is the object denoted. In Russell's version of logical Atomism, by 'simple object' he means "object of acquaintance". Thus, logically proper name denotes objects of acquaintance. Ordinary proper names are not logically proper names, as the ordinary proper names do not denote an object of acquaintance. The only expressions which he allows to be logically proper names are 'this', 'that' and 'I'. According to Russell, we are not directly acquainted with the ordinary objects but only with sense-data. Both Russell and Frege realised that it is uncomfortable when a speaker identifies the meaning of a proper name with some

description, and the consequence that the meaning of the name is variable between speaker. I think this difficulty can be removed instead of identifying the set of all descriptions true to the bearer if we identify the meaning of the name.

According to Schlick, "the meaning of a proposition is the method of its verification". The 'grammatical' rules partly consists of ordinary definitions that is, explanation of words, by means of other words and this is what is called ostensive definition. For example, when we teach a child 'blue' we show certain blue object. But in most cases the ostensive definition is of a more complicated form. We cannot point to an object corresponding to words like "because", "immediate", "again" here we must require the presence of certain complex situation. From the above, it is clear that there is no way of understanding meaning without ultimate reference to ostensive definition. This means reference to 'experience' or 'possibility' of verification". Therefore, Schlick points out that meaning of a proposition can be given only by giving the rules of its verification in experience. According to Schlick, linguistic rules refer ultimately to ostensively defined experience, to discover meaning we have to observe the world. Schlick tried to explain what

he meant by "experience". To understand a proposition, he wrote in A New Philosophy of Experience, "We must be able exact to indicate those particular circumstances that would make it false". Circumstances mean facts of experience and so experience verifies propositions and therefore, the criterion of solubility of a proposition is its reducibility to a possible experience".¹⁵

According to A.J. Ayer, a sentence is literally meaningful to a given person if and only if he knows how to verify the proposition which it purports to express. He says only indicative sentences must be verifiable in order to have meaning, command, questions, although they are meaningful they cannot be verified because they are neither true nor false. Again not all indicative sentences have to be verified because in case of analytic sentences we need not have to verify it since we know them in virtue of their definitions of the component words. Again, performative sentences also need not be verified. Thus, only non-analytic, non-performative sentences must be empirically verifiable in order to have meaning.

Thus, it has been seen that 'meaning' is such a slippery term, so it is better not to put the question about proper names, we should just work out the relation

15. Publication in Philosophy. Ed. College of Pacific (1933).

that holds between a proper name and descriptive expressions.

Referring expressions occur most frequently in sentences which serve to tell us something true or false about what is referred to. Sometimes a sentence contains two referring expressions as for example, "Tully is Cicero". Generally, a sentence contains a referring expression and a different sort of expression, a predicate. In the sentence "John is intelligent", the predicate is ... "is intelligent". Thus, John is the subject of the above sentence. Usually a subject is a referring expression.

Plato's theory of forms or ideas can be regarded as a theory about predication. The most simple appealing account of predicates is this, that, just as referring expressions, function by being used to refer to particulars, so predicates function by being used to refer to something else. As for example, just as "John" refers to John, so "is intelligent" refers to the property of intelligence. Thus, it has been seen that the "reference" theory of predication is the theory of subject and predicate, but they only differ in the nature of the entities they refer to. These differences are inessential, because any version of the 'reference' theory runs into similar trouble.

A good example of such a theory can be found in the works of German logician and mathematician Frege. According to him, a concept as he calls it, is 'the reference of a grammatical predicate' in just the way that a particular, or object, is the reference of a subject'.¹⁶ A predicate according to him, is that which refers to a concept. But here a problem arises because the subjects can also refer to a concept, and in this case, we will fail to distinguish subjects from predicate.

It is misleading to say that predicates serve to refer to abstract entities. Suppose, that "is intelligent" refers to an entity in "John is intelligent". Now, if we replace "is intelligent" by 'Ram' then we will end up with "John Ram". This does not have a sense and also it is not a sentence. The point is that, if predicates are names of entities, then the subject predicate sentences are pairs of names, since subjects are names or referring expressions. Any pair of names cannot be a sentence at all. The expression is called a subject which certainly do name, but predicate cannot be a name. It would be an added criticism of the 'reference' theory of predication to show that there do not exist the abstract entities to which predicates are meant to refer.

16. On Concept and Object in his *Philosophical Writings*, Trans. M. Black and P. Geach, Blackwell, 1966, p. 43.

P. Geach says about the predicate that "a predicate is an expression which is used to assert something about what is expressed by the predicate".¹⁷ This definition also rises a problem because it says that a subject can say something about something in the way predicates do. P.F. strawson criticises this account. He says:

Now certainly we could often say of someone who used the sencece (Raleigh smokes) that he was talking about Raleigh, that he made an assertion about Raleigh But it is also plain that there might be circumstances in which it would be correct to say of someone using the sentence, that he was talking about smoking, and that one of the things he asserted about it was that Raleigh smoked or has a smoker. To this extent at least and as far as the word "about" is concerned, the name 'Raleigh' seems to qualify on the definitions as a predicate.¹⁸

Suppose, if someone asks me what is smoking? Then to give the answer, I have to point to Raleigh and have to say he is smoking. Here I have said something about smoking, but I have not made "Raleigh a predicate".

In the statement like "Tully is Cicero" here "... is Cicero" does not qualify as a predicate. Because the

17. P. Geach, Subject and Predicate, Mind 59, 1950 Circa, p. 463.

18. P.F. Strawson, Individuals, Methuen, 1961, p. 144.

statement is identity statement rather a subject/predicate sentence. The statement says something true about Tully. But it would be absurd to say that Tully is included among the things which are Cicero. Cicero does not contain anything, anything in the way that a class does. Thus, '... is Cicero' does not qualify as a predicate. And the use of 'true' is vague. The only possible use of 'true' we can speak of a subject being true of a referent. As for example, if I say, "The greatest Emperor of Mughal Dynasty" is true of "The Akbar the Great".

The particular cannot be predicated of anything, that is, the expressions, referring to particulars cannot appear in the position of a predicate. The reason is that a particular, like a single man or a chair, cannot include other particulars as members.

To sum up, I will say, I am doubtful whether the statement "The Present King of France is bald" should be accounted false or truth-valueless. There is an ambiguity in Strawson's thesis that an utterance of "The present king of France is bald" does not entail as Russell thinks, but presupposes, that there is a present king of France. In some passages, he has suggested that it is the speaker who presupposes that there is a present king of France. In other passages, it is said that presupposition is not this

kind of epistemological relation, but a logical relation holding between the statement that the present king of France is bald, and the statement that there is a present king of France. According to Strawson, logical relations hold only between statements, this resolves the first ambiguity of the utterance "The present king of France is bald". He says, it is a statement, a statement is either true or false, but it is neither true nor false. To insist that it is a relation between statements, Strawson's account of presupposition is just like Frege's and secondly, that, if an utterance of "The present king of France is bald" does, after all, constitute a statement, then Strawson's criticism that Russell's mistake was to fail to distinguish between sentences and statements cannot be sustained.

Strawson is careful to say that it is uses of expressions which refer. But there is, again, some ambiguity about what he takes to be the conditions for successful reference. He has given a pragmatic account, according to which it is a sufficient condition for a use of an expression to succeed in referring to an object that the speaker have a certain object in mind. But so far we have seen, Strawson generally prefers a semantic account, according to which it is necessary, for a use of an

expression to succeed in referring to an object, that the expression denote that object.

Donnellan distinguishes between attributive and Referential use of definite descriptions. According to him, definite description is used attributively, if the speaker wants to assert something about whoever or whatever fits the description. And by referential use, he wants to draw his audience's attention to some particular person or thing and assert something about that. I agree with Donnellan that neither Russell nor Strawson's theory represents a correct account of the use of definite descriptions. He says that Russell ignores the referential use and Strawson fails to make a distinction between referential and attributive use.

CHAPTER IV

SUBJECT AND PREDICATE

SUBJECT AND PREDICATE

There is a traditional doctrine in Western Philosophy to the effect that the subject-predicate distinction in grammar parallels the particular universal distinction in logic. Aristotle and most other philosophers have supposed a fundamental connection between the subject-predicate distinction and the particular - universal distinction. According to Aristotle, as we have seen, what distinguishes universals from particulars is that a universal, unlike a particular can be "said of" something. In the terminology of subjects and predicates, a universal can be the predicate of a proposition, a particular cannot. Aristotle also held that universals can be "said of" other universals as when we say that man is a kind of animal. Universals, therefore, can be either subjects or predicates, particulars can only be subjects.

When we have considered various sentences in our language, there is always a distinction. This distinction is between the part of the sentence, which can stand for what something is said about, and a part which can stand for or express what is said about something. The former

part is called a logical subject, the latter is called a logical predicate. As for example, when we say, "Ram is intelligent", we seem to be doing two things referring to a certain thing, namely, "Ram" and saying something about him, namely that 'he is intelligent'. That which is referred to in asserting a proposition is called the subject of the proposition, and that which is said to characterise the subject is called 'predicate'. The sentence itself may then be correspondingly divided into two parts, the subject expression and the predicate expression. Thus, in the sentence "Ram is intelligent", the subject expression is "Ram" and the predicate expression is "is intelligent".

I shall try to discover what there is of truth to these ideas. I shall do so by exploring definitions of "subject term" and "predicate term". I shall try to arrive at satisfactory definitions. To find out the satisfactory definitions, I must judge at least two things. They must have as their basis the distinction between standing for what something is said about, and standing for or expressing what is said about something. Secondly, they must yield certain rather definite results. The subject-predicate distinction is designated to cut up sentences in a certain way, and for a great number of sentences, there

is general agreement as to which part of the sentence is to be the subject and which the predicate. As for example, in the sentence "Ram is intelligent", it is agreed that "Ram" is to be the subject and "is intelligent" is to be the predicate.

Here, I am interested to define "subject of a certain sentence" and "predicate of a certain sentence" not 'subject' and 'predicate' straight cut. I want to find out what is to function as the logical subject of a sentence, and what it is to function as the logical predicate of a sentence. We want a definition which enables us to tell, which expression can be regarded as subject and which expression can be regarded as predicate, in a given sentence. Sometimes, though not very frequently, a different approach has been taken to the matter. Sometimes, "subject" has been defined as that which can play a certain role in some sentence or other, and sometimes "predicate" has been defined as that which can play a certain role in some sentence or other. Then, indeed, it is a definition of "subject" that is given rather than of "subject of a certain sentence". Then the definitions tell us, given an assortment of expressions, which of these are logical predicates.

In this chapter, I shall be looking at a recent

investigation on this line of thought, that undertaken by P.F. Strawson in the second part of his book Individuals. Strawson sets out to examine the subject-predicate and particular-universal distinction for features which would account for a relation between them of the kind envisaged by Aristotle. Such features, he concludes in fact to be found. The theory at which Strawson arrives may, indeed, be regarded as a modern reformulation of Aristotle's theory of universals, which it resembles not only in the fundamental respect just indicated, but in many other respects as well.

Let us see first, then, how the generally agreed on ways of analysing sentences into subjects and predicates. For this we can state some general rules or principles in accordance with which the analysis is conducted.

Firstly, according to the generally agreed on ways of analysing sentences, they divide the sentence on any given subject-predicate analysis. Some philosophers hold that certain sentences admit of multiple subject-predicate analysis. Again, some of the philosophers deny it. Moreover, philosophers those who deny it, amongst them there is some disagreement, concerning certain sorts of sentences, as to the proper analysis. However, all the

ways of analysing sentences conform to the rule that by analysing a sentence, it divides the sentence into subject and predicate.

Secondly, it is generally agreed on ways of analysing sentences. But a problem is that what is subject of a sentence on a certain analysis, cannot also be a predicate of that sentence on some analysis. In the same way, what is a predicate of a sentence on a certain analysis cannot also be a subject of that sentence on some analysis. However, an expression which is subject on one analysis may be part of what is predicate on another analysis.

Thirdly, if a sentence contains just one expression which is a singular term, that is, a term which is not a grammatical predicate, nor an adjective nor a common noun, it functions only as its grammatical subject. For that type of expression along with its modifiers is the subject of the sentence and the rest of the sentence is predicate. As for example, in the sentences "Socrates is wise", "Socrates is a man" and "Socrates is mortal", in those sentences, "Socrates" is the subject of the sentence and the rest of the sentence is the predicate. But it is generally not agreed, however, what is to be said about those sentences which contain a singular term functioning

as grammatical subject, and which contain in addition at least one other singular term, for example, "Socrates is the teacher of Plato". Here in this example, "Socrates" is the subject and "is the teacher of Plato" is the predicate, according to the view of many philosophers. Again, according to certain contemporary logicians both "Socrates" and "Plato" are subjects in the sentence "Socrates is the teacher of Plato", and "is the teacher of" is the predicate. In another way, we can say that they hold whatever singular terms a sentence contains, those terms and their modifiers are its subject, the rest of the sentence being the predicate. There are some other logicians, according to whom the sentence "Socrates is the teacher of Plato" admits of multiple analysis, that is, "Socrates" may be taken as subject, and is the teacher of Plato may be viewed as predicate, or "Plato" may be viewed as the subject, where "Socrates is the teacher" may be predicate. ✓

Now, how we are to analyse sentences containing just one expression which is a singular term. And this singular term is not functioning as grammatical subject as in "He gave Ram a book". Indeed, it is perhaps not even agreed that such sentences are susceptible to subject-predicate analysis at all. But the sentence "All bats are rodents" - are susceptible to subject-predicate analysis.

Lastly, there is one more rule or principle of analysis is that all we have a right to expect of any definitions of "subject of a certain sentence" and "predicate of certain sentence". But they should yield results which conform for the most to the rules. For our language is flexible, idiomatic, instrument, and we can hardly expect an invariable conformity of it to the rules. All we can hope to do is to find definitions which secure results that for the most part, are in accord with these rules or principles of analysis.

Now, what is the basis of the distinction between subjects and predicates? Let us see what is the traditional view on this matter.

... according to the traditional definitions of subject and predicate, the subject is what in the proposition or statement, we are speaking about, and the predicate is what we say of the subject; or, in a familiar form, the subject is that about which something is asserted, and the predicate is that which is asserted about it.¹

From this passage one gathers that the subject-predicate distinction has traditionally been based on the distinction between that about which something is said or

1. J. Cook Wilson, Statement and Inference (Oxford, 1926), 1:114.

asserted and that which is said or asserted about it.

Thus, we can say that the subject of a sentence stands for the entity about which something is asserted, and the predicate stands for what is asserted about that entity. So, both subjects and predicates to be linguistic components of sentences. Let us take an example to illustrate the point, in the proposition 'Dogs bark', "Dogs" stand for the things about which the statement is made. And 'bark' is the sign of expression, or what is predicated about them. Thus, a predicate is an expression that gives us an assertion about something, and a subject of a sentence is an expression standing for something.

Suppose, someone asserts the proposition that 'Socrates is wise'. This proposition can be asserted by uttering at least the following three sentences: "Socrates is wise", "wisdom characterises Socrates" and "Socrates is characterised by wisdom". In the proposition "wisdom characterises Socrates", everyone would agree that "wisdom" can be viewed as being a subject of this sentence, though some will hold that "Socrates" is the subject. Hence, if the definition we are now considering is to be adequate, at least "wisdom" must be regarded as standing for something which the proposition is about. Hence, the proposition itself must be regarded as being at least about wisdom.

Let us take the first example, "Socrates is wise". And if the above definition is regarded as satisfactory, then it would seem that "wise" can be regarded as standing for wisdom in the sentence "Socrates is wise". If it is the case, then the sentence we are now considering "Socrates is wise" has "wise" for a subject. But it is uniformly agreed that in the sentence "Socrates is wise", there is only one subject, that is "Socrates".

It would yield correct result that "Socrates" is the only subject in the sentence "Socrates is wise". But it would yield the incorrect result that "Socrates" is also the only subject in the sentence "wisdom characterises Socrates".

From the above discussion we can say that the subject of a sentence is an expression in the sentence which stands for something which the sentence is about. But this is not satisfactory. there is one difficulty. Take it for granted that one can properly speak of a sentence as being about something. But in many sentences, where there is no one thing, which each can be regarded as always being about. Rather, what each is about, must be conceded to vary from context to context. In the same way, though it is certainly correct to speak of certain expressions as standing for things. For many expressions, there

is no one thing which each also varies from context to context. Let us take an example, "He is wise". It does not seem that "he" can be regarded as standing for something which this sentence is about." For what might that thing be? It is supposed that "he" be a subject in this sentence. Similarly, who is the person stands for him? 'Socrates' may stand for "he" and the "Socrates is wise" is about him. Given that many persons are named "Socrates", then it seems that there is no such person.

At this point, one might suggest that though a sentence as such cannot in general be regarded as being about something. Yet a sentence on a particular occasion of utterance can be regarded as being about something. Then the definition of subject will be as follows. The subject of a sentence is an expression in the sentence which is capable of standing for something which the sentence may be about on an occasion of utterance. But then another difficulty arises. If sentences on occasions of utterance can be properly regarded as being about things, they are in general about too many things. Thus, it is said that the subject of a sentence is that expression in the sentence. The expression which stands for something which assertions made with the sentence are about.

In traditional definition of "predicate", it is assumed that if we make an assertion about something, then we must be asserting something about that thing. Thus, we can say that distinction between subject and predicate is based on assertion. Because, if assertion has been made about something, then immediately the question arise "about what thing has someone been asserted". Thus, one can easily distinguish between these two things. Firstly, about which something has been asserted, and secondly, that which it has been asserted.

Now, suppose we say that a sentence which used to make an assertion about something is known as predicate. Then in the sentence, "Socrates is wise", we are asserting about Socrates, namely, that "he is wise". So here "Socrates" is subject, because we are asserting something about him, and "is wise" is predicate being asserted.

Aristotle says on Interpretation that Deduction are composed of sentences which are capable of being true or false, assertions or declarations. He regarded such assertion as taking one of two forms. In an affirmation, something is "affirmed of something else". "Socrates is human" affirms humanity of Socrates. "Horses are animals" affirms "animal" of "horses". In a denial something is denied of something else. "Socrates is not walking",

"Horses are not fish". Aristotle, thus, takes any assertion to consist of two parts a predicate, which is either affirmed or denied of something, and a subject of which the predicate is affirmed or denied.

We may distinguish between individual assertions, in which the subject is a concrete particular such as Socrates, and general ones, in which the subject is a general term or universal, such as horse. Individuals cannot normally serve as anything but subjects, whereas universals can also serve as predicates. We say, "Horses are animals" and "Clydesdales are horses" with equal naturalness. But when we force "Socrates" into predicate position, then it seems we have no eager for predication, but of a kind of identification. "That man is Socrates" amounts to "That man and Socrates are the same". A further distinction is that general predications accept determinations of quantity, such as "every", "some", "no", "Every horse is a mammal", "Some horses are not tame" with individual predications, such quantifiers seem ungrammatical.

Because of these and other differences modern logicians regard "Socrates is human" and "Every Indian is human" as having different logical forms, despite a superficial resemblance. "Socrates is human" is taken to be a

predication with Socrates as subject. Whereas "Every Indian is human" does not contain, "Every Indian" as subject at all. Aristotle also recognises that general and individual predications are different, but he nevertheless, takes both to have subject-predicate form. Modern logicians disagree in this point for fundamental reason.

Predications with universal subjects may be different in quantity. A predicate may be affirmed or denied of all of a subject, as for example, "Every human is rational", "No humans are Indians", or only some of it as for example, "Some dogs are not black". These distinctions complicate a fundamental relation between propositions, that of contradiction. In the case of an individual predication, there is a simple relationship between an affirmation and its corresponding denial, the proposition "A is B" affirms exactly what the proposition "A is not B" denies. And of these two, exactly one must be true and one false. Aristotle has given the following schema for the proper correspondence.

"Every A is B" and "some A is B" are contradictories, and "No A is B" and "some A is B" are contradictories.

But, "every A is B" and "No A is B" are not contradictories", because they both cannot be true, but they both be false. In the same way "A is B" and "some A is not B" are ever further from being contradictories since they can both be true.

But there is an argument against the Aristotelian legacy. It is true that it gives us contradictory predicates A and $\sim A$ only when it is attached to a proper name 'x' but it cannot give us contradictory proposition when attached to a referring phrase of the form 'Some s' or 'every s'. For example, 'John can laugh' and 'John cannot laugh' are contradictories but "some men are intelligent" and "some men are not intelligent" are both true. Thus, we cannot regard 'some men' as a genuine subject to which we get contradictory propositions.

According to Leibnitz, the law of contradiction holds that what involves a contradiction is false, and which is not true. The truths of reasoning are necessary and their opposite is impossible, e.g., all the angles of a triangle are equal to 180° . Impossible here means self-contradictory which is how the law applies here. The truths of facts are contingent and their opposite is possible. Possible would mean that which is not but could be there. And there must be a sufficient reason why truths

of facts rather than their opposite are existed.

According to Leibnitz all sound philosophy should begin with an analysis of propositions. Leibnitz's philosophy begins with such an analysis. Leibnitz's contention that all true proposition are analytic. He makes a distinction between truth of reason and truth of fact. These two are related respectively what Leibnitz calls the Law of Contradiction and the Principle of Sufficient Reason, which are the great principles of Reason.

The principle of sufficient reason consists of terms sub-laws 'possible and compossible'. Everything that is possible has essence or meaning but which is compossible only has existence.

If we have only the Law of Contradiction or Identity, then we will have only meaning. For existence to be possible the principle of sufficient Reason must also be present. The principle of contradiction is independent of God, but the reality of individual substance is dependent on God. This is because we cannot know the sufficient reason why things should be so and not otherwise. God is the source of the sufficient reason.

The Law of Contradiction involves an absolute or compelling metaphysical necessity. The Law of Sufficient

Reason is a relative moral necessity whose opposition is not impossible, but in compossible which means not in consistent with itself but inconsistent with the system. Principles are related to the doctrine of the best of all possible worlds. For Leibnitz possible existence of an individual X meant that the individual concept of X was a possible one. It may not be compossible with the other concepts instantiated in one world, but it is possible for it to be instantiated in some world.

According to Leibnitz, proposition is ultimately reducible to one which attributes a predicate to a subject. In any such proposition, unless existence be the predicate in question, the predicate is somehow contained in the subject. The subject is defined by its predicates, and would be a different subject if these were different. Thus, every true judgement of subject and predicate is analytic - that is, the predicate forms part of the notion of the subject - unless actual existence is asserted. Existence, alone among predicates, is not contained in the notions of subjects which exist. Thus, existential propositions except in the case of God's existence, are synthetic, that is, there would be no contradiction if the subjects which actually do exist did not exist. Necessary propositions are such as are analytic, and synthetic

propositions are always contingent.

Leibnitz says that when a subject-predicate proposition is true, the predicate is said to be 'included' in the subject where subject and predicate are both understood as concepts. This means that the concept of the predicate always follows from the concepts of the subject. This is always the case whether the proposition expresses a contingent or a necessary truth. His idea of a true proposition is such that every predicate necessary or contingent, past, present or future, is included in the idea of the subject. Thus, in asserting that in all true subject-prdicate proposition the predicate is included in the subject. Thus, in asserting that in all true subject-predicate proposition, the predicate is included in the subject. Leibnitz certainly, did not mean to imply that all subject-predicate propositions are more necessary. It is misleading, to say the least, to assume that 'the predicate in the subject thesis implies that all truths are analytic'.

In the view of Leibnitz, if one dependent on the principle of contradiction alone, then we will have only analytic propositions. But monads are not only self-explicate and self-evident, they are also self-sufficient. As far as the contingent facts are concerned the analysis

is not necessarily completed. The self-sufficiency is not fully realised in every case. Each Monad is in the process of realising itself. Therefore, many true propositions are not actually but ideally analytical. Both the truths of reasoning and the truths of fact are analytic but with a difference. The one is only potentially or ideally analytic but the other is actually analytic.

Two questions must be carefully distinguished in this connection. The first concerns the meaning and range of analytic judgements, the second concerns their claim to exclusive necessity. About the first question, he says that all causal laws are synthetic, he makes an important change, which prepared the way for Kant's discovery that all the propositions of Mathematics are synthetic. In discussing the first question, Leibnitz uses the term necessary and contingent instead of synthetic and analytic. As regards the second question, there lies a difference between Kant and Leibnitz.

As regards the range of analytic judgements, Leibnitz held that all the propositions of Logic, Arithmetic and Geometry are of this nature, while all existential propositions, except the existence of God, are synthetic. The discovery which determined his views on this point was that the laws of motion and indeed, all causal laws are

synthetic and therefore, in his system, also contingent.

Leibnitz and Kant both held that there is a fundamental distinction between propositions that are necessary and those that are contingent, or, in Kant's language, empirical. Thus, the propositions of mathematics are necessary. While those asserting particular existence are contingent. It may be questioned whether this distinction is tenable. As long as the distinction of analytic and synthetic propositions subsisted, there is some plausibility in maintaining a corresponding distinction in respect of necessity. As Kant pointed out that the mathematical judgements are both necessary and synthetic.

According to Leibnitz, the predicate of every true affirmative proposition is contained either explicitly or implicitly in its subject. If it is contained explicitly, the proposition is analytical. If it is contained only implicitly the proposition is synthetic. It is characteristic property of an individual substance to have a notion to complete that anyone who fully understood it could infer from all its predicates. Leibnitz takes the case of Alexander as an example. In contemplation the complete notion of Alexander, God sees in it the foundation or reason for every predicate which can never be truly ascribed to him. In this way, God knows a priori

whether e.g., Alexander will die by wounds or by disease or of old age. But no man can fully and distinctly comprehend the notion of any individual substance.

In every true proposition necessary or contingent universal or singular, the notion of the predicate is contained in some way in the subject.

The difference between the views of Leibnitz and Kant on necessity is often brought out by reference to the fact that Leibnitz considered mathematical truths to be true by definition whereas Kant decided that they are mere synthetic but priori. The main distinction between necessary and contingent truths is that truths of reason are necessary ... and their opposite is impossible. This is clearly linked with his thesis that a contingent truth is true in the actual world, whereas necessary truths are true in all possible worlds. A possible world is a world God could have created. As he only created the actual world which is ours, all other possible worlds, they are conceivable worlds. Truths of reason hold in every conceivable world, and hence are necessary. If it is like this - there must be a sufficient reason for everything. This sufficient reason is contained in the terms themselves. But the sufficient reason is not always known to us. Hence all true propositions are analytic only to

God. The law of sufficient reason as stated by Leibnitz in Monadology is as follows:

Our reasonings are founded upon two great principles, that of contradiction ... and that of sufficient reason, in virtue of which we judge that no fact can be found true or existent, no statement veritable, unless there is a sufficient reason why it should be so and not otherwise, although these reasons usually cannot be known to us. There are also two kinds of truths, those of reasoning and those of fact. Truths of reasoning are necessary, and their opposite is impossible; truths of fact are contingent, and their opposite is possible, when a truth is necessary, the reason of it can be found by analysis.... But there must also be a sufficient reason for contingent truths or truths of fact, that is, for the sequence of things which are dispersed throughout the universe of created beings, in which the resolution into particular reasons might go on into endless detail.²

This statement gives us very clearly the connection of contingent and existence. It is like this that - there must be a sufficient reason for everything. This sufficient reason is contained in the terms themselves. But the sufficient reason is not always known to us. Hence all true propositions are analytic only to God.

Leibnitz makes a distinction between truth of reason and truths of fact. That truth of reason or similar

2. Leibnitz, Monadology (31,32,33,36, D 222-3, L 235-7, Gv1-612).

to that of what we call now Analytic Proposition under truths of fact seems to be similar to what we call the Synthetic Proposition. However, it must be pointed out that Leibnitz does not make as sharp distinction between the two, for he considers all the proposition to be necessary of Analytic in Nature.

Hume works with a dichotomy. This dichotomy consists in some fundamental cleavage between truths which are analytic or grounded in fact. Hume has made this important distinction between analytic (relation of ideas) and synthetic (matters of fact) truth for the first time in the History of Philosophy. This sort of dichotomy has become one of the dogmas of modern empiricism. This dichotomy is, in fact, a simplification of a trichotomy between 'knowledge', 'proofs' and 'probabilities'. The better known dichotomy puts 'knowledge' on one side of the line and 'proofs and probabilities' on the other.

Hume holds that 'proofs and probabilities' provide our only basis for statements about 'matters of fact'. He, therefore, holds the view that we can never have 'knowledge' concerning 'matters of fact'. He says that human understanding or reason being limited cannot produce truth concerning "matters of fact". He points out that if we use reason to establish statements about 'matters of fact', it

will only degenerate into probability. He is of the view that statements about "matters of fact" being founded on probability are always followed by uncertainty and doubt.

Hume has a theory of probability which is as follows: the first evidence of our judgements of 'matter of fact' is probable and followed by a doubt, the second evidence of our judgements will be further weakened by the second doubt, the third evidence will still further weakened by the third doubt and so on ad infinitum. As a result of this progressively weakening probability, the judgements of 'matter of fact', will be left without any evidence worth mentioning.

He argues that if belief were 'simple act of thought', there will not be any belief at all but only a total suspension of judgements. He points out that there is no such suspension of judgements since men continue to believe as usual. He asserts that this fact conclusively proves that belief is some sensation or lively idea which cannot be annihilated by reason. He says that if we arrive at the belief through reason, the belief will be forced and unnatural and will strain the imagination. He points out that when the belief is natural, there will not be any strain on the imagination because its flow is smooth in its usual channel. He opines that a belief is never entire

when it does not spring from human nature. He is of the view that nature breaks all the force of sceptical and dogmatical reasons and thus prevent them from having any influence on human nature.

Thus, judgement and consequently, belief which it involves, are possible only through association. Hume has pointed out that association is based on imagination which in its turn, is "more properly an act of the sensitive, than of the cognitive part of the nature".³ It follows that the associated ideas of the past or simply the complex ideas acquired in previous experiences, are particular rather than general, for otherwise the word "imagination" would lose its significance. But how does a particular idea work in judgement? According to Associationists, the particular idea work in judgement through the act of predication itself. In judging the knowing consciousness starts with a certain aspect of given. This, we have seen, constitutes the subject of the judgement. This is determined in a certain way (which is predicate) in thought, with the belief that it is similarly determined in the stage of what is just 'given'. Here we see that 'predicating' and 'believing' are not two different factors though psychologically, they are distinguishable,

3. Hume, Treatise of Human Nature, Ed. Shelby Bigge, p. 183.

within the same unity of the judgemental cognition. Because without 'believing', the 'predicating' is impossible and without the 'predicating', the latter is insignificant in judgement. These two together constitute what has been called, the determinants or the logical predicate. Thus, according to Hume, predicate is constituted more by an idea which is revived than by any aspect of the present impression, though both are necessary for its constitution.

But to say that the predicate is only an idea, is to make judgement subjective, that is, it has no objective criterion of validity. But in actually, predication is said to have truth claim. And since truth claim is an essential feature of judgement, thus it may well be concluded that the predicate is not an idea.

According to Mill, also none of them can be a mere idea. To quote Mill,

Whatever the solution may be, we may venture to assert that it can have nothing to do with the import of proposition; for the propositions (except sometimes when the mind itself is the subject treated of) are not assertions in respect of our ideas of things, but assertions relating to things themselves.⁴

4. Mill, A System of Logic (Longmans, 6th edn., 1865, First published 1843), p. 56.

The two things may be either substances or attributes or one substance and the other attribute. There is no fixed rule in this respect. But none of them can be a mere idea. Indeed, an assertion based on revived idea, amounts to memory judgement whose certainty may always be questioned.

The distinction that Kant makes between different types of judgement is very familiar. Firstly, he distinguishes between analytic and synthetic judgements. An analytic judgement is one in which the concept of predicate is a part of the concept of the subject. It is called an "explicative judgement", because the predicate does not say anything of the subject which is not a part of it, explicitly or implicitly. The truth of this judgement depends on the law of contradiction. This means that an analytic judgement cannot be denied without logical contradiction. Kant's own example brings out this point very clearly. That example is, "all bodies are extended". The idea of extension, which is the predicate is a necessary part of the idea of body, which is the subject. There cannot (it is a logical cannot) be anybody without extension. In other words, if something is to count as a body, it must possess extension. A synthetic judgement, on the other hand, affirms or denies of a subject a concept of predicate, which is not a necessary part of the concept

of the subject. Kant calls this sort of judgement, an 'implicative' or 'augmentative judgement', for the concept of predicate adds something to the concept of the subject. To clear out this point, there is another example given by the master philosophers. The example is, "All bodies are heavy". It is a synthetic judgement, because the concept of weight or heaviness, which is the concept of predicate, is not a necessary part of the concept of body, which is the concept of subject. In this kind of judgement, the concept of predicate adds something or give additional information about the concept of subject. It is a truism to indicate that this sort of judgement does not depend on the law of contradiction, for the denial of a synthetic judgement does not involve a logical contradiction, the denial could be true.

Kant makes a further distinction within the general class of synthetic judgements, namely, the distinction between synthetic a posteriori and synthetic a priori judgements. A synthetic judgement in which the connection between the concept of subject and the concept of predicates is purely factual and contingent, is known as synthetic a posteriori. For example, "All members of tribe X are short". This judgement is synthetic, because we cannot attain the concept of shortness, which is the

concept of predicate, by merely analysing the concept of membership of tribe x, which is the concept of subject. This judgement is a result of a series of observation, and as such the connection between the concept of predicate and the concept of subject is given only in and through experience. It is purely factual because it is based on experience, and it is contingent because the connection between the concept of predicate and the concept of subject is not true for all times; it could be falsified in future. In other words, its apparent universality is not strict but assumed and comparative. Though it is a true judgement at present, the possibility of it being false cannot be ruled out, for there may be one or more tall members of tribe x in future. On the other hand, there is a type of synthetic judgements in which the connection between the concept of subject and the concept of predicate is not factual.

Kant draws yet another distinction between analytic judgement and a priori judgements. Kant is of the view that though all analytic statements are a priori, all a priori statements are synthetic. This is a very controversial position, and there are many philosophers who do not agree with this position that there is only one way entailment between analytic and a priori statements.

A priori truths are established either directly (intuitively) or by deduction (demonstration) from those truths that have been intuited. There are two meanings of the term a priori, wide and narrower. It means widely, 'non-empirical' - and narrowly, 'necessary'.

Analytic has had four main interpretations namely, (1) the widest interpretation is that an analytic statement is true in virtue of the meaning of the terms it contained in as understood. (2) Secondly, to Leibnitz and Kant, an analytic statement is a tautology that repeats itself, and it is an instance of the law of identity whose denial is an explicit contradiction. (3) As understood by Hobbes, an analytic is one that is true in virtue of the conventions of language, and (4) As understood by Frege and most modern logicians, an analytic is a truth of logic or reducible to one with the help of definitions.

There is an argument to show that no truth can be both synthetic and a priori, which is as follows. All a priori truths are necessary and synthetic truths are contingent. Moreover, all a priori truths are non-empirical (analytic), and all contingent truths are empirical. And since necessary and contingent truths are mutually exclusive no truth is both analytic and empirical. Every truth is either analytic or empirical. Since synthetic

means 'non-analytic' and *a priori* means 'non-empirical' every truth is synthetic or a priori and no truth is both.

According to rationalist philosophers, synthetic-a priori truth is possible. A list of some propositions that rationalists have held to be synthetic a priori truths is as follows:

- (1) $7 + 5 = 12$.
- (2) Every event has a cause.
- (3) Parallel lines never meet.
- (4) A straight line is the shortest distance between two points.
- (5) Time proceeds forward, never backward.
- (6) Space is three-dimensional.

The empiricist holds that none of the above propositions are synthetic *a priori* truths. If a priori, they turn out to be analytic and if synthetic they turn out not to be a priori. But the rationalist holds that some of them - or at any rate some propositions, even if not these above are both synthetic and a priori.

According to Kant, the synthetic a priori propositions are to be found in the following: (1) they are to be found in mathematics. Kant says, 'First of all it must be noted that mathematical propositions are always judgements

a priori and not empirical, because they include the concept of necessity, which cannot be derived from experience (IInd edition C.P.R. Section 14). The proposition $7 + 5 = 12$ is a synthetic a priori proposition. It is a necessary proposition, for it does not admit of possible exceptions. It is not analytic, for the concept of twelve cannot be obtained by merely analysing the idea of the union between seven and five. Therefore, it is synthetic. It is known a priori with the help of intention, Geometry is also synthetic a priori proposition. For example, 'that a straight line between two points is the shortest is a synthetic proposition. For any concept of straight line contains no notion of quantity, but only of quality. The concept of the shortest is thus, wholly an addition and it cannot be derived by any analysis from the concept of a straight line. Synthetic a priori propositions are also found in physics. For example, "in all changes of the corporeal (material) world the quantity of matter remains unchanged (Reference). According to Kant, this proposition is a priori being necessary, and at the same time it is synthetic because of the fact that the concept of predicate is not a part of the concept of subject. (3) Synthetic a priori propositions are to be found in morals too. For example, "keeping promises is morally good" (Reference). This proposition is a priori

because it is necessary, and it is synthetic for the same reason given above.

The distinction which Kant makes between synthetic and analytic is similar to that of Leibnitz's distinction between truths of reason and truths of fact. Quine points out that the Kantian distinction between synthetic and analytic has the following two drawbacks, namely, (1) the distinction applies only to those statements which are of the subject-predicate form, and (2) it appeals to a notion of containment. Kant holds that a statement is analytic if it is true by virtue of meanings of the terms it contains, independently of facts. Quine examines the concept of meaning to see whether a statement could be considered analytic by virtue of meanings. He is of the opinion that any attempt to explicate analyticity in terms of either meanings or synonymy or definition would lead to a vicious circle. Quine denied the existence of the analytic synthetic distinction altogether. He is of the opinion that even with the help of a precise artificial language it is not possible to separate analytic statement from synthetic ones. Quine seems to declare that the distinction is not only useless or inadequately classified, but also altogether illusory. He says that there is such a distinction to be drawn at all is an unempirical dogma of

empiricist. Analytic and 'synthetic' have a more or less established philosophical use, and thus seems to suggest that it is absurd, even senseless, to say that there is no such distinction. Quine's case against the existence of the analytic-synthetic distinctions is not made out. P.F. Strawson and H.P. Grice offer theoretical reasons for supposing that the analytic synthetic distinction does in fact exist, even if they do not very satisfactorily delineate that distinction or shed much real light on its nature. Their argument is correct and important, "where there is agreement on the use of the expressions involved with respect to an open class, there must necessarily be some kind of distinction present".⁵

W.V. Quine published a paper "Two dogmas of Empiricism" where he denied the existence of analytic and synthetic distinction.

The first dogma is that the belief in some fundamental cleavage between truths which are analytic or grounded in meaning independently of matter of fact, and truths which are synthetic grounded in fact. The other dogma is reductionism, the belief that each meaningful

5. Hillary Putnam, Mind, Language and Reality, Philosophical Papers, Volume 2, Cambridge University Press, 1975.

statement is equivalent to some logical contract upon some terms which refer to immediate experience.

The belief in some fundamental cleavage between truth which are analytic or grounded in meaning independently of matters of fact, and truths which are synthetic grounded in fact, the other dogma is reductionism, the belief that each meaningful statement is equivalent to some logical construct upon same terms which refer to immediate experience: (1) blurring of the supposed boundary between speculative metaphysics and natural science, (2) shift toward pragmatism.

Kant conceived an analytic statement which is conceptually contained in the subject. This formulation has two shortcomings. Firstly, it limits itself to statements of subject-predicate form, and secondly, it appeals to notion of containment which is left at a metaphorical level. It can be restated as thus: a statement is analytic when it is true by virtue of meanings and independently of facts. Let us examine the concept of meaning which is presupposed.

Meaning is not identified with naming. In the opinion of Frege and Russell a term can name the same thing but differ in meaning. Abstract terms - 'I' and the

number of the planets name one and the same abstract entity but differ in meaning. To determine the sameness of the entity we need the astronomical observation, the reflections on meaning is not sufficient.

General terms or predicates the situation is different but parallel. Singular term concrete or abstract, names an entity, a general term does not. A general term is true of an entity, each of many or of none. The class of all entities of which a general term is true is called the Extension of the term. The meaning of a singular term and the entity named distinguished likewise.

Confusion of meaning with extension, in the case of general terms, is less common than confusion of meaning with naming in case of singular terms. The opposition between Meaning (intention) to extension, or connotation or denotation has a common place in Philosophy.

The Aristotelian notion of essence was the forerunner of the modern notion of intention or meaning. For Aristotle, it was essential in man to be rational and accidental to be two legged. But there is an important difference between this attitude and the doctrine of meaning. From the latter point of view (for the sake of argument) rationality is involved in the meaning of the word 'man' and two leggedness is not, but two leggedness

is involved in the meaning of the word 'biped' while rationality is not. But it makes no sense to say of the actual individual who is at once a man and biped, his rationality is essential and his two leggedness is accidental, and vice-versa. Things had essence for Aristotle, but only linguistic forms have meanings. But meaning is what essence becomes, when it is divorced from the object of reference and wedded to the world.

What sort of things are meaningful. Meaning and reference are distinct. Then the primary business of the theory of meaning is simply the synonymy of linguistic terms and the analyticity of statements.

The problem of analyticity then confronts us anew. Analytic statements fall into two classes, (1) Logically true, (2) it depends on the notion of synonymy, is typified by, (1) No unmarried man is married. It remains true under any and all reinterpretation of 'man', 'married' other than the logical particles 'no', 'un', 'not', 'if', 'then', etc. (2) No bachelor is married, it cannot be turned into a logical truth by putting synonyms. The synonyms, for example, by putting unmarried man for its synonymous 'bachelor'. But the notion of synonymy stands in need of classification. Therefore, notion of analyticity cannot be classified.

Some say that synonymy can be reduced to definition. The term 'bachelor' is defined in terms of unmarried vagueness of language. It can be done with artificial language with semantical rules..

The notion of analyticity is a relation between statement and language. A statement S is analytic for language L, if and only if ... it does not say that such and such statements are included among the truths. Now, we are making an appeal to unexplained phrase (semantical rule).

To compare the notion of semantical rule with that of postulate. It is obvious that truth in general depends on both language and extra linguistic fact. The statement 'Brutus killed Caesar' would be false if the world had been different in certain ways, but it would also be false if the word 'killed' happened rather to have the sense of 'begat'. Thus, one is tempted to suppose in general that the truth of a statement is somehow analysable into a linguistic component and a factual component. Given this supposition, if factual component is null, it is analytic. A boundary between analytic and synthetic statements simply has not been drawn. It is an unempirical dogma of empiricists, a metaphysical article of faith.

So far we have seen what is the notion of meaning, then of the notion of cognitive synonymy, and finally of the notion of analyticity. But what is the verification theory of meaning? In the opinion of Pierce, the meaning of a statement is the method of empirically confirming it or infirming it. The statements are synonyms if and only if they are alike in point of method of empirical confirmation or infirmation. Statement synonymy is not of linguistic forms. The relation between statements and experience is one of direct report. This is radical reductionism. According to Locke and Hume, the idea must originate directly in sense experience. This is unnecessarily and intolerably restrictive. The statement as a whole are translatable into sense - datum language.

This is explicit in Frege and Russell and implicit in the verification theory of meaning. Carnap does the translation in Aufbau. He tries to reduce science to term of immediate experience with the help of the whole language of pure mathematics. His starting point is not sense-datum language in the narrowest conceivable sense, for it included also the notations of logic, up through - higher set theory. Carnap is of the view that each statement can admit of confirmation or infirmation. He is of the view that the statements about the external world face

the tribunal of sense experience not individually but only as a corporate body.

The two dogmas are at root identical. The statement is somehow analysable into a linguistic component and a factual component. It is nonsense, to speak of linguistic component and a factual component in the truth of individual statement. They must be taken collectively. Thus, science has its double dependence upon language and experience.

Ontological questions are on a par with questions of natural science. There is no absolute distinction between the synthetic and the analytic. This distinction is only of degree.

P.F. Strawson claims that there is another difference in function between subject and predicate. According to him, subjects have a certain completeness about them which predicate lack. As for example, if someone assertively says, "Socrates is wise", then "Socrates" is a grammatically complete answer. "Socrates" is the subject of the sentence and it is grammatically complete answer to the question, what has something been said about. But the predicate of this sentence, does not, by itself, constitute a complete answer to this question. For this purpose, it is incomplete.

Strawson says that some sort of expression is called "subject expression" and some sort of expression is called "predicate expression". Strawson's terminology, both subject

and predicate expressions are respectively the subject and predicate of the asserted proposition. Thus, when I assert the proposition "Ram is intelligent" in my sentence the subject expression is "Ram" introduces the term Ram a human being, and the predicate expression "is intelligent", introduces the term intelligent or being intelligent.

Strawson says that there is a characteristic difference between the way in which a subject expression introduces its term and the way in which a predicate expression introduces its term. The principal difference between what he calls subject expression like "Ram" and "Socrates" and predicate expressions like "is intelligent" and "is wise". According to Strawson, 'subject expressions' introduce their terms in a grammatical style, that is substantival, which would be appropriate to any kind of remark that is, a command, exhortation, undertaking, assertion, whereas predicate expressions introduce their terms in a very distinctive grammatical style, namely, the assertive or propositional style.

By using, 'the assertive or propositional style "Strawson intends to register a fact, that is, the expressions "is intelligent" and "is wise" occurs only in three types of sentences or clauses - namely, in assertions "Ram is intelligent", "Socrates is wise", in questions, "who is intelligent",

"who is wide", and in conditional clauses "If Ram is intelligent...", "If Socrates is wise" Thus, he maintains that predicate expressions introduce their terms in the assertive style, as we are agreed that these three types of sentences or clauses make assertions. But Strawson thinks that he is entitled to make 'is intelligent' and 'is wise' occur only in propositions, and therefore, they introduce their terms in the propositional style. That is why, he employs the alternation "the assertive or propositional style", with 'propositional style'.

But the subject expression such as "Ram" or "Socrates" has no such special connection with the assertion of propositions. The name "Ram" may be complete in any kind of remark, not necessarily a proposition. But the expression "is intelligent" demands a certain kind of completion. The completion into a proposition or propositional clause. To complete the subject expression, we could use a list of items, and such listing does not seem to be in any clear sense derived from the assertion of propositions.

Strawson says that the Particular-Universal distinction is based on subject-predicate distinction, that is, Particulars unlike Universals, can appear as subjects only, never as predicates. But it is indeed be a mistake

to try to find the particular-universal distinction on the subject-predicate distinction. It is also wrong to think that the subject-predicate distinction could be explained independently of the particular-universal distinction. But sometimes in a simple kind of proposition, where particular term and universal term are such a way each introduced themselves and assertively linked, that the foundation of the subject-predicate distinction lies in the different type or category of the terms introduced into this kind of proposition. This is based on the difference which, Strawson suggests, exists between the way in which particular "collect" becomes universals, and the way in which universals "collect" becomes universals. A particular "collect" meant all those universals which it exemplifies. Here this collection is at sometime or other or throughout its existence. This means that the various universals collected by a given particular are linked by way of the continuity identity of the particular, that is, every particular must fall under some general principle for determining the identity of that particular. As for example, "This is Ram" here I know him very well, but I may fail to recognise him after a long gap. And I can recognise him as "Ram" only with a principle of collection in different circumstances. Thus, the particular supplies

a principle of collection based on continuing identity. And a "universal", "collects" all those particulars which exemplify it, whether at same time or other or throughout their existence. That is the various particulars collected by a given universal are linked by way of some kind of resemblance. As for example, when we say, "Blue", it may be "sky blue" or "navy blue" or "ultramarine". These all differ from one another. But at the same time universal "Blue" is linked by way of some kind of resemblance. Thus, a thing or an entity we are able to recognise it as the same entity in different circumstances, with the help of the principle of collection only. Thus the universal supplies a principle of collection based on resemblance.

From the above discussion, we can say that this point is connected with a difference between the conditions in which we say "same particular again" and those in which we say "same universal again". Thus, we are observing that in the first case, the judgement is based on continuing identity. That it is typically involving some sort of spatio-temporal continuity. In the second point, it is based on same kind of resemblance. So, simply an entity whether it be universal or a particular to recognise it as the same entity, in different circumstances, we need the help of the principle of collection.

Strawson's distinction between these two kinds of principle of collection might be brought out more clearly as follows. A person who has grasped the principle of collection supplied by the universal "red" will be able to recognise this red colour in any occasion, wherever this colour will occur. But just knowing the meaning of "red" does not in itself enable me to locate the examples of redness. While just opposite in the principle of collection supplied by the particular "Ram". To know him as "Ram" is depended on the principle of personal identity. Suppose, in one occasion for saying "That is Ram", means, I know him very well and I am acquainted with him. This acquaintance will enable me to locate 'Ram' when I will meet him again after many years, or wherever he goes. But it does not necessarily enable me to recognise an occasion for saying "That is Ram" when one occurs. Because, I may fail to recognise 'Ram' after many years of absence. When I could not recognise him as Ram, then it seems that my grasp of the principle of personal identity must be inadequate. From the above example, it seems that every particular must fall under some general principle for determining the identity of particulars of that kind. As in the case of particular 'Ram' falls under the principle of personal identity. This is in fact Strawson's view. In this connection, Strawson makes a distinction

between "Sortal universals" and "characterising universals". According to Strawson,

A sortal universal supplies a principle for distinguishing and counting individual particulars which it collects. It presupposes no antecedent principle, or method of individuating the particulars it collects, characterising universals on the other hand, supply principles of grouping, even of counting particulars, supply such principles only for particulars already distinguished or distinguishable, in accordance with some antecedent principle or method. Roughly, and with reservations, certain common nouns for particulars introduce sortal universals, while verbs and adjectives applicable to particulars introduce characterising universals.⁶

From the above definition, we can say that, sortal universal provides the principles of identity whereas, if the characterising universals do the same, it does so only in a derivative way. This can be illustrated in the following way. As for example, if we take a sortal universal "Horse" and a characterising universal "Red".

Suppose a person knows very well the meaning of "Horse" and, since, he has fully grasped the meaning of horse, therefore, he knows what counts the same horse again, and so to say that where one horse ends and where another begins. So, if we ask him a question, how many

6. P.F. Strawson, Individual, Part II (London and New York, 1959), p. 168.

horses are there in this particular room. He will be able to count all horses in that room and can give the answer.

But in the case of characterising universals, similar manner is not applicable. Suppose, a person knows very well the meaning of "Red" and also has grasped the full meaning of "Red". He knows what counts as the same "red" thing again, and so to say where one red thing ends and another begins. And, if we will ask him a question, how many red things are there in this room? He will be able to give answer of this question. Because all those things depend on what kind of things are in question. As there is no answer to the question, whether a red rose is one red thing or a collection of many red things, namely, its petals. We can count the roses in a vase or the petals on a rose. But we cannot count the "red things" as such.

Red is an example of a characterising universal. But it does not provide principle of identity at all. Some characterising universal does provide the principle of Identity, indirectly. As for example, the universal "wise", we may be able to give a definite answer of the question "how many wise things are there now in this room?" Because "wise" supplies a principle of identity in its own right. The very term "wise" indicates some persons. Because only people can be wise. And thus, the

principle of identity supplied by the sortal universal 'person' is there for use in this case.

According to Strawson, characterising universals, presuppose sortal universals. Since characterising universals are predicated only of particulars. Whose identity is already determined by means of a principle supplied by some sortal universal. But it is not only characterising universals which have the power to supply principles of grouping for particulars, the particulars which have already been distinguished in accordance with some other principle or method. This power they share with particulars themselves. Thus, just as among particulars already distinguished as historical utterances, or goals at football. We may even further group together those which are wise utterances or difficult goals. As for example, wisdom may serve as a principle of grouping of particulars. These particulars which have been distinguished as such in accordance with some other principle or method. Strawson here, assumes to speak of non-relational ties between particulars and universals. This tie he calls it, "the attributive tie".

In general, whenever a particular is bound to a universal by the characterising tie, then we can frame the idea of another particular bound to the first by the

attributive tie. Thus, the characterising tie between "Socrates" and the universal, "Intelligent", there corresponds the attributive tie between 'Socrates' and the particular, his intelligence.

Strawson has compared the ways in which terms may collect each other by these three kinds of tie.

(1) He says that one and the same particular may be sortally or instantially tied to a number of different sortal universals. An example of this is a particular dog, which falls under the universal animal, and it is also counted as a terrier. In general, the universals to which one and the same particular is sortally tied will have a characteristic relation to each other. Again one and the same sortal universal may be instantially tied to a number of different particulars. Suppose, there are many dogs which have different names. Here all the particular dogs are instantially tied to sortal universal 'dog'. Here, they are related to each other by sortal resemblance. Thus, we can say that one universal may collect many particulars by the instancial tie. And in the same way, one particular may collect several universals by instancial tie. As we have said a particular dog, is instantially tied with the sortal universal an animal, or a terrier. Here in each case, the principle of collection is quite different kind.

(2) Secondly, he says that one and the same particular may be tied by a characterising tie to many characterising universals. So, we can give many characterising universals to the same particular, as a particular person, Socrates may be wise, intelligent, warm, cold, bold, fights, talks. In the same way one and the same characterising universal may be tied by a characterising tie to many different particulars. As for example, Socrates, Plato, Aristotle, Descartes are all wise, all are mortal being. Again, about the characterising tie he says that one particular may collect many universals at different times. Here also the principle of collection is different in each type. One particular collect different characterising universals at different time, depending on the continuing identity vaguely referred to as spatio-temporal continuity. On the contrary, the characterising universal collects different particulars on the basis of the kind of overall resemblance, which exists between one person and another or those particulars at those times.

(3) Thirdly, he says, when one comes to consider the attributive tie, there is a difference in the situation. Suppose, we take a particular person "Socrates", then Socrates may collect, an enormous number of characterising universals by the characterising tie. Correspond-

dingly, a characterising universal may collect enormous number of particulars by the characterising tie. Thus, by the characterising tie, Socrates may collect honesty, intelligence by the attributive tie, he collects a particular honest and a particular intelligent. The particular honest and the particular intelligence cannot be collected by the attributive tie, but it can be collected by any other particulars of the same kind as Socrates, it is particularly collected by Socrates, because it is his attribute. But the universal 'Honesty' and 'Intelligence' can collect by the characterising tie, any number of particulars as Socrates, Ram, Plato, Aristotle, etc.

Now the question may arise how the sortal universals supply principles of identity. By which it fits together with the earlier statement. How it collects particulars by the principles of Identity and universals by the principles of resemblance. Strawson says that it is not being claimed that a sortal universal collects particulars by way of a principle of identity. Rather, it collects them on the basis of certain characteristic resemblance between those particulars at those time. Principle of identity serves not to collect the different particulars, rather it distinguishes the different particulars from each other. When the principle of identity

differentiate the particulars from each other, then the each particular itself proceeds to collect the further universals.

From the above discussions, we can say that Strawson tries to explain the subject-predicate distinction by distinguishing between 'listing style of term' and an 'assertive or propositional style'. When he explains the distinction between particular and universal by distinguishing between principle of collection. Again, this principle of collection is based on continuing identity and principles of collection based on resemblance. But what relation is there between the two distinctions that is between subject and predicate, with particular and universal.

It is obvious enough that we do utter so many things. But seldom we do anything which even we can say that it looks like predicating a particular. This point Strawson very clearly illustrated in his book, Individual. He says that "Language" freely allows the use of proper names of particulars in simple grammatical predicative forms, just in those cases where the use of these forms has no tendency to make us say that we are predicating the particular in the cases, in fact, where we can say that the term introduced by the grammatically predicative

expression is a universal or a universal-cum particular. Should anyone object to the use of the word "universal" here, we can say instead: the principle of collection supplied in such a case by e.g., Napoleon, is a resemblance principle of the kind the continuing identity of a particular supplies. The non-relation tie asserted by "The gesture was Napoleonic" is a characterising tie rather than an attributive tie, the things asserted to be bound by the tie are not the gesture 'and Napoleon, but the gesture and resemblance principle of collection supplied by Napoleon. Generally, we are prepared to use such predicate forms as "is Napoleonic" only when we can regard Napoleon as supplying a principle of collection".⁷ Thus in such cases as "The gesture was Napoleonic", it is possible to say that the term predicate is not the particular Napoleon. But it is associated with the universal. Whose characteristics is commonly attributed to Napoleon. Here the predicate expression introduces and assertively links not with particular Napoleon, but a link either with characterising or sortal universal to which the particular has, for historical reasons. We need to know who was Napoleon, to grasp the import of the adjective "Napoleonic". But it is not enough if we know who was Napoleon, here we need also to know why he was famous for. Thus, knowing

7. Ibid., p. 174.

Napoleon characteristically, would surely be enough, if Napoleon himself is the predicate.

Then, we may safely claim that the assertive or propositional style are the characteristic of predicates, it is not used for introducing particulars. Though, it is not used for introducing particulars, but it is used for introducing universals. This universals often used as a predicate then as subjects. Now, again the question may be asked how it is that, the universals do sometimes appear as subjects.

The explanation for this, according to Strawson, is that "universals collecting other universals in ways analogous to the ways in which universals collect those particulars which are instances of them or characterised by them."⁸ That is a universal collects particulars on the basis of a principle of resemblance. For an example, we may take species of animal, which collects, "Cat", "Dog", "Horse", "Elephant", etc. In the same manner, "Cat" itself collects particular cats, or 'Dog' collects particular 'dogs'. Since the principle of collection is of the same general kind, so it will be appropriate to use the same

8. Ibid., p. 171.

kind of sentence, just as we say "x is a cat", even we can say "The cat is a species of animal".

Therefore, we may regard as the fundamental type of subject-predicate proposition, in that which the subject is a particular and the predicate is a universal. But the question arise, why should this be so?

Strawson offers a new distinction between expressions to give the answer of the above question. He says in the Individual that "Expressions such that one cannot know what they introduce without knowing (or learning from their use) some distinguishing empirical fact about what they introduce", and "Expressions such that one can very well know what they introduce without knowing any distinguishing empirical fact about what they introduce."⁹

For introducing a term, we do not need to make a statement. It is only a part of making a statement. By expressions a term indicates something. It means that it indicates what term is introduced by its means. As when we say, "Ram is intelligent", the first expression, indicates that, what particular it is referred to, and the second expression indicates what characteristic is ascribed to that particular.

9. Ibid., pp. 186-87.

Here Strawson has distinguished between two kinds of expressions. The first expression, is evidently a self-sufficient and complete. While the second expression is lacking of it. About the expression (1) one might say though they do not explicitly state facts, but they perform their role, because they present facts. They present facts only because they presuppose propositions. But expressions of class (2) does not carry any fact in introducing their terms. They can only help to carry a fact. And they cannot carry fact, unless they form a class (1) expression.

Strawson's distinction between class (1) and class (2) expressions, helps to explain why it is appropriate to introduce particulars in the neutral or listing style, and universals in the assertive or propositional style.

We may ask, what Strawson is getting at in distinguishing these two types of expression. If we take the earlier example, "Ram is intelligent". Here, class (1) expression is "Ram" and the class (2) expression is "is intelligent". To know what term is introduced by "is intelligent", it is necessary for us to understand the meaning of it. But this is not applicable in the case of the term "Ram". When one says "Ram is intelligent". Here I may fail to understand what term the name "Ram"

introduces. Because, I don't know which "Ram" he is referring. There may be many people named Ram, and which particular "Ram" is in his mind.

Likewise if someone says "The cat is white". Here also, I may fail to understand what term his words "the cat" introduces. Here I know the meaning of cat, but I do not know which cat he is referring to on this particular occasion.

We should inquire the conditions which must be satisfied in order to be the case that an identifying reference to a particular is made by a speaker and correctly understood by a hearer. Out of these conditions, the first condition is that there should be a particular which the speaker is referring. Secondly, there should be a particular which the hearer takes him to be referring to. Thirdly, the speaker's particular, means to whom he is referring should be identical with the hearer's. Now a question may ask how he uses a name? One cannot significantly use a name to refer to someone or something, if he does not know to whom or to what things he is referring by that name. So, one must be prepared to substitute a description for the name. When the speaker gives the description, which he has prepared to substitute for the name he uses, there must be a particular answering to the

description which the speaker uses. But this condition is also not enough. Because, what he is referring, referring just only to one particular. There may be many particulars which are fitted by the description he has given for the name he uses. Though according to the speaker, there is no more to say for the name he uses, and he relies heavily on the context of the speech situation. He is referring just a single particular, but according to description it might not fit only to that particular, who is in his mind, rather it might fit to many particulars. So there must be one such particular, who is in his mind. The thing is that the speaker himself cannot distinguish the particular which he has in mind by the fact that it is the one he has in mind. So there must be some description, which applies uniquely to the one he has in mind. He calls this description "identifying description". Strawson says "Identifying description" may, of course, include demonstrative elements, i.e., it need not be framed in purely general terms. In general indeed, it could not be so framed; it is impossible in general, to free all identification of particulars from all dependence upon demonstratively indicatable features of the situation of reference. It should be added, moreover, that the identifying description, though it must not include a reference to the speaker's own reference to the particular in question, may

include a reference to another's reference to that particular. If a putatively identifying description is of this latter kind, then, indeed, the question, whether the reference it refers to is itself a genuinely identifying reference. So one reference may borrow its credentials, as a genuinely identifying reference from another, and that from another. But this regress is not infinite.¹⁰

From the above, we can say that in order for an identifying reference to a particular to be made, there must be some true empirical proposition.

But if we consider a less simple case. That means if our term-introducing expression, and the expression is the proper name of a particular. This according to Strawson, is that, if the expression is the proper name of a particular, then it is not required that there should be just one object or person which bears the name. And if we are not satisfied with the answer that the presupposed fact is the fact that there is just one object or person which both bears the name and is being currently referred to by its means. Then to consider the case of the speaker alone - the previous argument requires the "presupposed" fact to be some true empirical proposition known to the

10. Ibid., p. 182.

speaker which he might cite in order to indicate which particular he has in mind. And this cannot be the fact that there is just one he has in mind. But now, if we find a fact answers to this specification, that is, if we might be able to distinguish the one he has in mind. But there is no guarantee that the fact we find can be said to be presupposed. Suppose, in the simple sense of presupposition, if the statement begins "That person there". By the statement he is indicating a child name John. He is referring a child whom he saw yesterday. But it will certainly not be the case, that just this existential fact is presupposed, in the sense illustrated, by the statement, currently make about John.

Thus, to know what term is introduced by a class (1) expression, in addition with the class (1) expression, we need to know the meaning of the expression, and also to know which thing the speaker has in mind. This thing is applied equally to the case where we are ourselves are the speaker. If I use the expression, "the cat" without having any specific cat in mind at all. Then this expression will not introduce a term. Here, this expression I might use to illustrate some point of grammar. But I might be succeeded in introducing a term if I am under some kind of misapprehension. As for example, if I intend to refer it to

someone's cat, and the concerned person does not have a cat.

Now a problem arise, when the speaker says "this cat", we are not aware which cat he has in mind. But we can solve the problem by asking him, which cat he is mentioning. He can also give the answer either by describing the cat, as for example, "the white cat which lives next door". He may give the answer, by pointing the cat, if the cat in the question is actually present there. But there is a very possibility that the things may go wrong. There may not be any white cat, who is living to next door, or there may be two cats exactly same looking, where the speaker himself could not realised which one of the two he meant. Or, he might, conceivably, say "That cat over there" and he points to a region of space where there is no cat at all. But if nothing goes wrong, it will be the case that he knows an empirical fact in virtue of which he can identify the cat which is in his mind. Because it is a fact that there is just one cat in his mind, when he says that to know what term is introduced by a class (1) expression, one must know a "distinguishing empirical fact" about that thing.

Thus, a proper name can be related to just one thing in a way in which a common noun can be related to

many things. Suppose, that I have known a family one of whose children is named "Ram". Further, that often not seeing the family for a span of some years, I have come back to visit them, where I have seen a boy of approximately the size and looks that I would expect of Ram after those years. So, I remark "This is Ram". But suppose the boy before me is a neighbour boy, who also bears the same name "Ram".

In this case, I affirmed the term "Ram" of someone. Further, the term "Ram" is true of this person. A true proposition can be asserted by uttering, "This is Ram", when "this" stands for the boy in question. For he does bear the name; and a necessary and sufficient condition for a proper name being true of something is that thing bear the name. Yet the proposition that I asserted is false. When I asserted about this person - namely, that he is 'Ram' - was asserted falsely about him. Though the name "Ram" is true of this person, but it is false of him, because it is not that 'Ram' who is in my mind. So one ought to know a "distinguishable empirical" fact about the thing.

According to Strawson, the distinction between class (1) and class (2) expressions are very closely related to the distinction between the expressions which

introduce their terms in the neutral or listing style and expressions which introduce their terms in the assertive or propositional style.

Propositional style is incomplete style which demands completion into an assertion. This incompleteness, Strawson says,

Answers exactly to the failure of this kind of expression to present a fact on its own account. We have a contrast between something which in no sense presents a fact in its own right but is a candidate for being part of a statement of fact, the class (2) expression, and something which does already in a sense presents a fact in its own right and is also a candidate for being part of a statement of fact, the class (1) expression. It is appropriate enough that in the explicit assertion constructed by both taken together, it should be the former which carries the propositional symbolism, the symbolism that demands completion into an assertion.¹¹

Strawson here proposes a new criterion for the subject-predicate distinction. A subject expression, according to him, is one which, in a sense, presents a fact in its own right and is to that extent complete. A predicate expression is one which in no sense presents a fact in its own right and is to that extent incomplete. Here it seems that Strawson is claiming that a subject

11. Ibid., p. 187.

expression is class (1) expression, and a predicate expression always a class (2) expression. But he claims that the subject expression can on occasion be class (2) expressions. An example of it is "intelligence" in the sentence, "Intelligence made him success". To know what term is introduced by the word "intelligence", it is enough for us to know what the word means. In this matter, the subject expression, "intelligence" does not differ from the corresponding predicate expression "is intelligent".

Now a question arises, what is then the relation between the class (1) expression and class (2) expression with that of particular universal distinction? Strawson's answers is that the particular can be introduced only by class (1) expressions, while universals are normally introduced by class (2) expressions. Universals also sometimes be introduced by class (1) expressions.

Thus, we are getting some possibilities, that is, subject expression of class (1) introducing a particular as for example, "Ram", but the subject expression of class (2) introducing a universal as for example, "Intelligence", in the sentence, "Intelligence made him success". In the same way Predicate expression of class (2) introducing a universal but it is different from the

universal introducing by the subject expression of class (2) as for example, "Ram is Intelligent" and "Intelligence made him succeed". Thus, the universal which introduced by the predicate expression of class (2) is "is intelligent". And lastly, the subject expression of class (1) introducing a universal. The universal which is identified on the basis of an empirical fact. As for example, if I say "the colour of my hair become one when I dyed it". Here a universal is introducing on the basis of an empirical fact, namely, that I dyed my hair. I dyed my hair to become one colour. Here colour is not specified, that is, which colour it became. Here, however, we may think that the universal in question could on another occasion have been introduced by a class (2) expression, such as "the grey colour" or "the black colour". Generally, Strawson thinks a universal is always capable of being introduced by a class (2) expression, and indeed by a predicate expression.

Russell regards particulars as entities which can only be subjects or terms of relations. The particulars cannot be predicates. It is because a particular is naturally conceived as a this. As for example, "This book is red". Here it is referring a particular, or a specified book. Here it has used as a subject. Thus, particular is

naturally conceived as a this, or something intrinsically analogous to a this. And, therefore, such entity seems incapable of being a predicate or a relation. On this view, a universal is anything that is a predicate or a relation. In the above example, "The book" is a particular book. But "red" is not a particular red we are talking about, it falls on the universal "red". But if there is no specific relation of predication, so that there is no class of entities, which can properly be called predicates, then the above method of distinguishing particulars and universals fails. Now the question arises, whether philosophy must recognise two ultimately distinct kinds of entities, that is, particulars and universals, turns on the questions whether non-relations are of two kinds, subjects and predicates, or rather turns which may be either subjects or predicates. And this question turns on whether there is an ultimate simple asymmetrical relation which may be called predication.

Russell, thinks that, it can be decided in favour of predication by the analysis of things and by considerations as to spatio-temporal diversity. According to Russell, the common sense notion of things and their quantities are the source of the conception of subject and predicate. And this is the reason why language is so

largely based on this conception. Russell says,

A thing of the everyday sort, is constituted by a bundle of sensible qualities belonging to various senses, but supposed all to co-exist in one continuous portion of space. But the common space which should contain both visual and tactile qualities is not the space of either visual or tactile perception.¹²

About the sensible qualities, he has given an example, suppose same shade of colour is found in two different places. The common thing what exists is the shade of colour itself, and that what exists in the one place is identical with what exists in the other. He has given this example to show that two numerically different instances of the shade of colour exist in the two different places. Here the universal is not existing in space and time. Because the shade of colour itself is a universal and a predicate in both the instances. According to this view, when we say, "this thing is white", the fundamental fact is that whiteness exists here. But according to other view, what exists here, is something of which whiteness is a predicate. They admit it as a particular because a particular of which whiteness is the only predicate, except its shape and brightness and whatever

12. Bertrand Russell, Edited by Robert Charles Marsh, Logic and Knowledge (London & New York, 1956), p. 109.

else is necessarily connected with whiteness.

However, Strawson also allows for non-particulars which are not in the traditional sense universal. These would include, for example, classes, numbers, and words. It seems that he wants to say the same as what he says about universals in the traditional sense.

But there arises some difficulties. Because it is not very much clear at first sight that classes or words, can be introduced as predicates. When we say "Socrates is a member of the class of men", or "whatever we are seeing in this shade is an instance of the word red", the predicate, on the face of it, is not the class, but being a member of the class, not the word, but being an instance of the word.

Here, in this point, it is relevant to introduce Strawson's concept of a "non-relational tie". Let us take an example, "Socrates is wise". Here "wisdom" is a characteristic of Socrates" or "Socrates is characterised by wisdom". This type of relation, according to Strawson, does not express genuine relation. Rather it expressing a "non-relational tie". In the example, "Socrates is wise" the wisdom is predicated of Socrates, the subject of the predication. But in the example "Wisdom is a characteristic

of Socrates", here in both the sentences assert a characterising tie binding the particular Socrates, and the universal, wisdom. Now a question arises, that the meaning of both the example is same. Though they have the same meaning but they are expressing two different thing, why? If, instead of saying "Socrates is wise", we say "Socrates is characterised by wisdom", it seems we might also say, "Socrates is characterised by being characterised by wisdom" and so on ad-infinitum.

Now a question arises, do the infinite series of predicate expressions "is wise", and "is characterised by wisdom", etc. all introduce the same universal, or does each of them introduce a different universal? In the first, we have seemingly absurd result that, merely in virtue of being wise, Socrates possesses each of an infinite number of properties. If we agree then it would raise some serious difficulties. That is, "if being wise" and "being characterised by wisdom" stand for two properties, then it is surprised how two expressions can even manage to stand for the same property. Because the property of being characterised wisdom not only are possessed by the same things, but are necessarily possessed by the same things. According to Strawson, we can construe "wisdom is a characteristic of" as predicate

expression, and 'Socrates' as subject expression. And it shows that whole sentence is not as an insisted on alternative to "wisdom Socrates", but as permitted periphrasis (we are speaking round-about) for "Socrates is wise". So, 'Socrates is wise' and "Socrates is characterised by wisdom" have exactly the same meaning. But "Socrates is wise" is not a relational proposition, whereas "Socrates is characterised by wisdom" is a relational proposition. Relational proposition always admits of being treated as a simple subject predicate proposition. As for example, "Ram loves Sita" in this proposition, there are two subjects, Ram and Sita, and they are related by a predicate 'love'. In other way, we can say, that there is one subject and one predicate, as either 'Ram and loving Sita', or 'Sita and being loved by Ram'. But in the example of "Socrates is wise", there is not all my provision for two subjects. And, therefore, it is not a relational proposition.

Thus, we can say that a Relational sentence, that is, sentence containing more than one logical subject, and also deserve special attention, suppose, for example, a speaker is assertively uttering "Ram loves Sita", he predicates loving Sita of Ram, and being loved by Ram of Sita. The predicative relation in these cases is that of

having or possessing the property of being loved. The speaker claims that Ram has the property of love for Sita. And the Sita has the property of being loved by Ram. And what the speaker asserts is true just in case these relations do in fact hold. Both loving Sita and being loved by Ram, then are properties.

In assertively uttering, "Ram loves Sita", it would also seem, that a speaker predicated some thing of both Ram and Sita, and it is a relation. He has referred to Ram and to Sita, and has predicated some relation of them. It is worth noting that when a speaker predicates a relation of some things, holding of this relation is not always the case that it is necessary and sufficient condition for the truth of what was asserted. As for example, in the sentence, "Ram loves Sita" when a speaker assertively utter this, he predicates of Ram and Sita the relation which holds among the members of a pair just in case at least one loves the other. But this relation can hold among Ram and Sita even though it is not the case that Ram loves Sita. It would hold if Sita loved Ram. The holding of this relation among these two things is a necessary, but not sufficient, condition of the truth of the assertion.

Now, for "Socrates is wise" can be rewritten in

the form "Socrates is characterised by wisdom". But how can we similarly rewrite "Socrates is a member of the class of men" or, "What you see on the blackboard is an instance of the word 'red'". These two different examples pose different problems.

If we utter a word as "red" instead of expressing any predicate expression, it will provide us a subject expression. It is an expression involving non-relational ties. This word is the expression "is an instance of the word red".

If the expression "is an instance of" expresses a non-relational tie, the universal introduced by the expression "is an instance of the word 'red'" ought surely to be capable of being introduced by an expression which does not contain this misleading component. Suppose, if this to have been done, the sentence "what you see on the blackboard is an instance of the word 'red'" can be replaced by the sentence "what you see on the blackboard is 'reddish'". These two different sentences retain the reference to a token word. Token word means the words conceived of as instances in the first sense. These two sentences retain the reference to a token word, because in the first sentence it is saying that it is an instance of the word 'red' and second sentence it is saying that the

'blackboard is red-ish'. We have taken this reference 'red-ish' from the previous apparent reference to a type word, that is, the word red. Type word means the words conceived of as having instances.

In the cases of classes, the appropriate rewriting is too obvious. Suppose we take the class men and the sentence "Socrates is a member of the class men", this sentence can be replaced by the sentence "Socrates is man". But 'is a member of the class men' and 'is a man' ✓ introduces the same entity, that is, they both fall on the universal concept being a man. Now, the question is, what then does "the class of men" itself introduce? To say that it introduces the class of men, an entity different from the universal being a man. But it is opposed in character to regard "is a member of the class of men" is different from the universal "is a man". It is mere a variant sentence expressing the same thing. Because, the universal being a man is the class of men and they are one and the same thing. If we accept this, then we have to abandon the concept of class. Because the class of men and the universal being a man are one and the same thing.

To sum up, we can say that Strawson does not follow the traditional view that every proposition must have a subject and predicate. Rather he regards a language in

which there are subject expression and predicate expression. In the view of Strawson, to talk about particulars and talk of universals, both exhibit a logical complexity.

CHAPTER V

CONCLUSION

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In this chapter, I shall give my own findings without repeating the arguments.

In the first chapter, I have discussed about the philosophical logic. There, I have discussed what is the business of philosophical logic. The business of philosophical logic, as I understand, is that, it investigates the philosophical problems raised by logic as; the business of the philosophy of science is to investigate the philosophical problems raised by science and of the philosophy of mathematics to investigate the philosophical problems raised by mathematics.

In that chapter, I have discussed how the philosophical logic is related to, but distinct from that of other kinds of logic. A central concern of logic is to discriminate valid from invalid arguments and also formal logical systems, such as the familiar sentence and predicate calculi, are intended to supply precise cannons, purely formal standards of validity. Likewise, philosophical logic concerns itself with questions about formal logical systems. Though it is concerned with formal logical system, it also concerns with philosophical

questions rather with purely formal questions.

I have started from 'traditional logic', that is, from Aristotelian syllogistic logic. Aristotle is the first philosopher who used logic in detail and made it a special discipline. The central concern of Aristotelian logic is to investigate the logical relations of four propositional forms, that is, Universal Affirmative, Universal Negative, Particular Affirmative and Particular Negative. But the traditional logicians are mainly concerned with syllogism which is based on mediate deductive inference, and it is the most important work in logic. To determine the validity of the syllogism, Aristotle formulated a principle named, "Dictum De Omni Et Nullo". This statement he has defined as "What is true of certain class taken distributively, is true of every member of the class, and what is not true of a class, taken distributively is not true of any member of the class".

Aristotle's dictum is applicable only to the syllogism of the first figure. But not to syllogism of other figures. To determine the validity of the other figures, he has introduced Reduction. By the term Reduction, he means the change or transformation. To ascertain the validity of the second, third and fourth figure, we have to reduce or change them to the first

figure by the method of Reduction.

But the problem arises as how to evaluate the other kinds of arguments, which Aristotelian logic fails to prove. As for example, "If it rains then the farmers will get good crops". 'It rains' therefore, the farmers will get good crops, or "I will go to Calcutta but I will not meet my friend". These types of arguments are not translatable into syllogistic form. Thus, to proceed further the Megarians and Stoic schools invented some propositional devices in place of Aristotelian syllogism.

Propositional logic is the basic part of logic. It studies the logical behaviour of propositions by means of ✓ various logical connectives. In any written language, we find the use of certain words like "and", 'or', 'not' and phrases like "if then" ... "if and only if", each with a distinct purpose. These are called logical connectives, one or more of which have to be used while dealing with a number of statements in a same sentence. These logical connectives have their special signs. To use these special signs we have to follow some rules as they are given in the system of propositional logic. And this system is known as the "calculus of propositions".

There is a truth-table method to find out the

validity of the propositions. I have discussed in detail how to construct the truth-table to find out the validity of the arguments. In propositional logic the logical operators that is '.', 'V', 'D', '≡' and '~' are entirely sufficient for writing all truth functional connectives. But it faces difficulty in the phrases like "necessity" and "possibility". Thus, propositional logic has offered an interesting base on which modal logic can be constructed. ✓

Modal logic is intended to represent arguments involving essentially the concepts of necessity and possibility. There is a long philosophical tradition of distinguishing between necessary and contingent truths. The distinction is that a necessary truth is one which could not be otherwise, a contingent truth is one which could, or, the negation of a necessary truth is impossible or contradictory, the negation of a contingent truth is possible or consistent.

The distinction between necessary and contingent truth is metaphysical one, it should be distinguished from the epistemological distinction between - a priori and aposteriori truths. An a priori truth is one which can be

known independent of experience, on the other hand, an aposteriori truth is one which cannot. The metaphysical and the epistemological are certainly different distinctions. But it is controversial whether they coincide in extension, whether, that is, all and only necessary truths are a priori and all and only contingent truths are aposteriori. Kant thought that these are contingent a priori truths, while the logical positivists insisted that they are either necessary and a priori, or contingent and aposteriori, and not both.

Modal logic is primarily concerned with logical necessity and logical contingent truth. The distinction between logically necessary and logical contingent truths has sometimes been thought to rest on that between analytic and synthetic truths. 'Analytic' and its opposite 'synthetic' have been variously defined. Kant defined an analytic truth as either a truth of logic, or a truth reducible to a logical truth by means of definitions in purely logical terms. Truth of Arithmetic are, in this sense, analytic. Some defined, analytic truths have been characterised as "true solely in virtue of their meaning", synthetic truth as "true in virtue of facts".

Analyticity is thought to explain the grounds of necessary truth, what makes a necessary truth necessarily

true. So the necessary, contingent and analytic, synthetic distinctions are supposed to coincide, the idea being that an analytic truth, is true, solely in virtue of its meaning, and it could not be otherwise, and thus it is necessary.

Though traditionally, the modal logic has been restricted to the considerations of the contexts, "It is possible that ____" and "It is necessary that ____" and their negations, but twentieth century, modal logicians attempt to develop "If-then" operators. Such attempts have been made with regard to possibility and necessity in combination with truth-financial material implication. And this important modal notion is that of entailment. This relation is a converse relation, that is, to say that a proposition p , entails a proposition q . In converse way one can say that q follows logically from p , or that the inference from p to q is logically valid.

The predicate logic tries to point out the defect of the propositional logic and it tries to rectify this defect. I have already pointed out that predicate logic rest in general, of an analysis of the logical form of certain simple sentence and in particular a theory of the logical property of the quantifiers. I have also explained this point in great detail. Therefore, there is no need

for me to do the same exercise again. However, I must point out that even the predicate logic is inadequate in certain respect. The inadequacy consists in the following: It does not account for artificial classes or sets whose elements may be finite or infinite in number. Mathematical logic accounts for this artificial classes. I shall not go into all the integrate details of mathematical logic since it has been already done to a great extent by me, in the first chapter. However, I am of the view that mathematical logic also fails to be entirely adequate. It fails to be entirely adequate for the following reasons: It deals only with the foundations of mathematics. In my considered opinion, the scope of philosophical logic is much wider than the scope of different types of logic considered so far. I am of the view that the philosophical logic is inclusive of other types of logic. This is what I have exactly tried to establish in my first chapter. I would be more than happy if the set task is achieved.

In the second chapter, I have given a brief history of the problem of universals and particulars. I have discussed the nature of our conceptual framework putting "universals" at the centre. Human communication is carried on chiefly by means of language and the efficiency with which it discharges its function depends largely on

its generality. It is by virtue of this generality that concepts and words are applied to a quite indefinite number of existing and possible objects. Regarding the universals and particulars there are number of problems, and the philosophers are trying to solve this problem since long time. The problem of universal and particular is one of the fundamental problems of philosophy that arises directly from our reflections upon experience, thought and language. Regarding this problem of universal and particular, many philosophers have given different views but I found none of them to be entirely satisfactory.

In the course of my discussion, I have discussed in detail the various schools of thought with regard to the nature of universals and particulars and pointed out that they are unsatisfactory. Plato being an extreme realist holds that we can have the knowledge of 'form' or 'idea' which is the underlying principle in various classes of sensible objects. He holds that universals are 'forms' fixed in the nature of the thing. To him, universal is a single eternal and independent of the world of space and time. But the particulars for its existence depend on the existence of universals. Particulars are said to be the copies of universals or Ideas.

Then I have criticised his view from different standpoints. Aristotle's theory of universals grows out of the criticism of Plato's theory of Ideas. For Aristotle, universals are as real and objective as the individual themselves. Aristotle's theory of universals is based on the apprehension of properties which is common to a group of particulars and which are the members of species and genera. Thus, Aristotle does not deny the reality of universals as common properties of individual objects. But he denies the existence of universals as individual substances. For Aristotle, universals are essentially something which belong to particulars and is logically dependent on them. For Plato, the knowledge of universals is a priori but for Aristotle, it is derived from sense experience by abstraction.

But to me none of the theories of realism is acceptable as a solution to the problem of universals. Plato did realise the difficulty of explaining the relation between universal and particular but never tried to answer them. Plato also goes wrong by holding that universals can exist without particulars. Aristotle, on the other hand, is correct in saying that "matter" and "form" are two inseparable entities. He, however, holds that there are universals common to individual objects corres-

ponding to our concepts of genera and species. His doctrine of universals is based upon the apprehension of common properties possessed by the individual objects. The question, however, arises how the individual shares these common properties? Does the property remain same in all the individuals? Aristotle does not raise these questions, presumably, because all common properties, for him are identical properties.

The controversy over universals in the middle ages finally came to an end with the rejection of all forms of realism by conceptualism. Conceptualism is a doctrine which claims that universals are concepts or general ideas in the mind. They are the mental images. The chief exponent of this theory is John Locke. He rejected both the Platonistic and Aristotelian theory of realism. Because, to him, universal is a nominal essence, that is, general idea or concept. Universals or general ideas are necessary for remembering each particular thing experienced in its particularity and also for communicating our thought to others. General ideas are formed by us by a process of abstraction from particular ideas. He says that the general idea is not different from the particular idea, rather he says that it is the particular idea regarded in a special way.

Locke's theory of universal has some serious difficulties. The theory as it is stated, is inconsistent with itself. Firstly, it says that all that exists is particular and then that general ideas are formed by abstracting common qualities. But if all that exists is particular, how could we abstract common qualities? Locke did not answer this question.

Berkeley's view of general ideas and universals grows out of his criticism of Locke's view. He repudiates Locke's contention that the mind has a power of framing abstract general ideas or notions of things. He confesses that we cannot single out a general quality common to many objects, and that every time and with everyone some word may not accompany the same idea, that is, we cannot single out a general quality common to many objects, as for example, "being coloured". If we think of objects as "being coloured", it is always of a particular colour, whatever colour it might be.

It is a well known fact that Berkeley attacks John Locke's "doctrine of abstract ideas". However, I am of the opinion that Berkeley's attack on abstract idea is not completely compatible with his atomistic 'sensationalism'. Berkeley does not provide or employ a single definite criterion for determining the limit of abstraction. Moreover, his attack on abstract ideas does not give any real support to his argument against the existence of material substance independent of perception. Berkeley's attack suffers from some inner

difficulties which cannot be removed without changing it in such a way that it renders no support to his position.

To sum up Berkeley's view, we must say that, he refuted Locke's theory of abstract general ideas, but he himself ends with acknowledging abstraction in a sense when he says that one can single out 'triangularity'. But this type of conceptualist views about universal cannot stand as a satisfactory theory, because it takes away universal element from universal and treats concepts as particulars. We can say that the British empirist conception of universals in general is defective.

Nominalism defines universal in terms of resemblance among particular is being called by the same name. It claims that universals are words or signs standing for referring to individual objects or set of objects. What is common to a group of particulars is only the name.

Realising the defects involved in this extreme form of nominalism, Hobbes holds that the word universal is never the name of any existent thing nor of any idea formed in the mind but it is the name of some word or name. He says that there being nothing in the world, universal are nothing but names. A universal name being a single name is the name of diverse particular things, in respect of all which together is called universal. He

rightly argued that there is no essence for universal names to designate but it can be done only on the basis of resemblance among particulars. Everything in this world are particulars but they can be treated as universals only in words by virtue of resemblance among things. They are names, purely because of their use, not for any general image. So universal names are used to refer to different particulars, and can be applicable to any particular instance in accordance with their similarity. Thus for him, classification depends on similarity of things.

Hobbes thus reintroduces an Aristotelian theory when he holds that something is common to a group of particulars is being called by the same name. Hobbes, thus, stands with the resemblance theorists. But neither resemblances alone nor identities alone can explain all our classifications. We must combine both of them in a single comprehensive view in order to give a satisfactory answer to the problem of universals.

Then I have spoken a few words of Bradley's view of ideas. I have also given an account of Kant's view. Kant believes that it is neither universal alone nor particular alone which makes our knowledge possible. He argues that there are two things necessary for knowledge, that is, on the one hand, intuition and on the other hand, the application of categories to what is given in intuition.

Neither intuition alone nor categories alone can give us knowledge. Categories are empty without intuition and intuition is blind without categories. So, to Kant, both categories and intuitions are necessary for knowledge. After that I have discussed Strawson's view. Strawson gives more importance to particulars than to universals. Strawson argues that the thought of particulars is complete whereas the thought of universals is not. He distinguishes two worlds: (i) the empirical world, and (ii) logical world. Particulars picture the fact of our empirical world, whereas the universals only picture the meaning of the propositions of which they are the constituents. Though Strawson treats particulars as the basic elements of thought yet he gives equal place to universals in matters of knowledge. Both the universals and particulars are necessary for knowledge.

Though Quine criticises nominalism with regard to universals, he himself can be considered to be a kind of nominalist. He may be said to be universalist only so far as the mathematical entities are concerned. His logic may be explicated in terms of his famous slogan 'to be is to have a value of a bound variable'. The important questions are as follows: (1) whether there are universals, (2) whether universals are more fundamental or particulars are more fundamental. I have tried to answer these two questions as

satisfactorily as possible. Philosophers as far as the problem of universals and particulars are concerned may be broadly divided into two categories, namely, Platonists and Aristotelians. The Platonist rejects the position of Aristotelians and the Aristotelian rejects the position of Platonists. Is it possible to find a middle path? I think that it is possible to find this path. There are universals and there are also particulars. Without there being universals it would not be possible to classify the particulars as belonging to different kinds. It may not be out of place to point out Plato's position, that he has not given two different words but two different approaches, namely (1) Inductive approach, (2) Non-inductive approach. He applies the former to account for the existence of particulars, and he applies the later to account for universals on the basis of reasons or rational grounds. The position taken by Strawson seems to be rather extreme pro-Aristotle. On the other hand, Quine seems to assert as well as deny the existence of universals. I am not claiming that I have solved this problem perennial of Philosophy. I have only indicated a possible solution.

In this third chapter, I have discussed in detail Reference and Predication. In the notation of current logic the distinction between singular reference and

predication is given a fundamental place. The notions of predication are invoked to characterise a number of configurations in ontology, in the theory of knowledge in logic and in the analysis of language.

The notion of reference, in particular, has always fascinated linguistics, logicians and philosophers. Moreover, philosophers are interested in reference, because in referring, words relate directly, to the world. I have critically examined the position of Plato vis-a-vis the copula in order to elucidate as to how Plato tackles the problem of predication.

In order to discuss the copula, Plato uses of four different uses of the verb 'to be' which are as follows: (1) it has an existential use that it is used existentially. For example, "Being is means", "Being exists". (2) It is used to assert certain connection between two concepts. For example, 'A triangle is non-square'. Here the verb 'to be' does not have an existential meaning, but it asserts a certain sort of connection between the concept of a 'triangle' and the concept of 'non-square'. (3) It is used as a copula. For example, 'Socrates is a man'. Here, the verb 'to be', 'is' is a copula, and it indicates that the subject concept 'Socrates' falls under the predicate concept 'man', and (4) it is used as an

identity sign or sign of difference. For example, (i) It is 'Socrates', and (ii) It is not 'Socrates'. This procedure of Plato may be compared with Frege. In order to explicate how Plato handles the problem of reference. I have said a few lines about the relation between 'what is not' and 'nothing'.

Quine distinguishes singular terms from general terms. He speaks of different 'position' which term may occupy in sentence as a referential and of predicative position. According to Quine, there is a role or function between 'indefinite singular terms and general terms in predicative position, Quine has given an example of such sentence "A comet was observed by astronomers tonight", containing one indefinite singular term and one composite general term in predicative position. The term "a comet" is formally like a definite singular term, which has occupied the position of subject to the predicative copula. It is formally unlike general term in predicative position is that it has no predicative copula prefixed to it and does not itself possess the form of a verb. It does differ from general term, as for 'everything' and 'something'.

According to many philosophers, definite descriptions are referring expressions. And singular reference

can be made by definite descriptions. Some of them have gone further and maintained that only definite descriptions can be used to make singular reference. According to them, all expressions which are used as a singular reference are in fact definite descriptions though they may not appear so.

According to Meinong, any grammatically correct phrase stands for an object. Thus, 'the present king of France', 'the round square', etc. are supposed to be genuine objects. These objects do not subsist and yet they are supposed to be objects. But this view involves self-contradiction.

Frege in his theory avoids violating the law of contradiction. In a denoting phrase, Frege distinguishes two elements, the meaning and the denotation. For example, 'the centre of mass of solar system at the beginning of the twentieth century is a certain point', here, 'the centre of mass of the solar system at the beginning of twentieth century' is complex in meaning and the solar system, twentieth century, etc. are constituents of meaning. Here, the denotation 'is a certain point' is simple and denotation has no constituent at all. When we analyse Frege's view there is a difficulty. If we say 'The king of England is bald', here, it is not a statement

about complex meaning but it is a statement about the actual man denoted by the phrase. But when we say, 'the king of France is bald' here it has the same meaning provided by 'the king of England' but it has no denotation in obvious sense. So it is not non-sensical that 'the king of France is bald' but it is plainly false. Thus, if we say denoting phrases have two sides of meaning and denotation, the cases where there seem to be no denotation, cause difficulties.

Frege's semantic account of names, that is, proper names and definite descriptions - is a distinguished piece of philosophical analysis and can be considered a classic in its field. Most of Frege's critics reject his theory of the sense of names. There is strong disagreement about what the sense of a name is supposed to be, and there are many who reject his claim that every name has a sense. It is not surprising because "On Sense and Reference", he argues that the distinction between sense and reference is applied merely to names and sentences. He does not give any importance to the questions of how the sense of a given name has to be determined and how the notion of sense can be applied to different kinds of names. He confines himself in the case of names to pointing out that they have sense. These deficiencies are highlighted in his

general theory of sense and reference.

G. Frege makes the following points concerning names: Firstly, they designate objects, and secondly, that they are constituents of sentences expressing a thought. They have something to do with the distinction between the reference of a name and its sense. To him, proper names are meant to designate objects, and we call the object designated by a proper name its reference. Thus, we can say that Frege's view of definite descriptions belongs with proper names like Ram, John, Smith. It belongs with proper names because the proper names have both sense and reference, and they are determined by their sense. Though the proper names have both sense and reference even then the referential theory of meaning remains highly problematic. Suppose, in the example, "The present king of France is bald". Here, in this example, the referential theory of meaning apparently renders it impossible to make a true negative existential claim. Because France is not presently monarchy. And if it is meaningful to say that 'the present King of France' does not exist, then some object may be named by "the present king of France" must "constitute the meaning of the term". And such an object must in some sense exist. Then to say, "the present king of France" does not exist, will render a negative existen-

tial claim false, because by that name an object surely has an existence.

Thus, we can come to a conclusion that the general claim of Frege is that to know the reference of a name implies grasping its sense. This is a general claim because it is concerned with names in general, whether they are proper names or definite descriptions. Though Frege has not drawn any semantic distinction between proper names and definite description, but he is very much aware of the distinction, as he hold that - "A proper name, properly used, simply was a definite description abbreviated or disguised". For Frege, proper names are not 'disguised' definite descriptions, but they are like them because they have sense and could have a reference. Though he is mainly concerned with establishing the names, including proper names, which have a sense, but he eventually considered the sense of particular proper names and specified it by means of a definite description. As we have seen, his account of the sense of a proper name is mainly concerned with showing that it has a sense and leaves aside the question of how to determine it.

Russell, like Frege, identifies the meaning of ordinary proper names with the meaning of some relevant definite description. Russell, however, also distinguished,

a special category of logically proper names. There are expressions whose role is purely to denote a simple object, and the meaning of which is the object denoted, so in the case of logically proper names Russell equates meaning with Reference.

Though Frege and Russell both equate the meaning of proper names with that of corresponding definite descriptions, they give quite different explanations of the way these descriptions work.

By a description Russell means any phrase of the form "a so and so" or "the so and so". A phrase of the form "a so and so" he calls "ambiguous" or indefinite description and a phrase of the form "the so and so" (in the singular) definite description. Russell calls definite description as proper name. 'A man' is an ambiguous description. Because if one asks me "whom did you meet?" And if I reply, "I met a man". That is a very indefinite description. Because our question is: What do I really assert when I assert "I met a man?"

By definite description, Russell means such phrases as "the author of Waverley", "the present king of France", "the tallest building in London" and so on - the phrases which purport to name one definite description. By

description, he means any phrase of the form "the so and so" in the singular.

This "the so and so" may be demonstrated by a consideration of the difference between a name and a definite description. Let us take the example, "Scott is the author of Waverley". Here, we apply the name 'Scott' and the description 'the author of Waverley' to the same person. But there is a distinction between name and other symbols. A name is a simple symbol whose meaning is something that can only occur as subject, again a simple symbol is one which has no parts. Thus "Scott is a simple symbol". So we have two things to compare (a) name, and (b) the description. A name is a single symbol which directly designates an individual which is its meaning and a description which consists of several words and whose meanings are already fixed.

Definite description in isolation have no meaning but sentences containing them may have a perfectly good meaning. We cannot speak about "the present king of France" because there is no king in France. But we can speak about "the present king of England". In the same way a proposition as "Scott is the author of Waverley" could not be true if Waverley had never been written it, or if several people had written it. But we may say that "the author of

Waverley" means "the value of x for which x wrote Waverley" is true. Russell claims that if we complete the proposition expressed by such a sentence, for example, "the author Waverley is Scott", and we can see that it is a complex one which contains three constituent propositions. They are (a) at least one person wrote Waverley, (b) at most one person wrote Waverley, (c) whoever wrote Waverley was Scott. All these three propositions together implied that "the author of Waverley was Scott". But if we leave anyone of them and take any two of them, it will not imply the same. Conversely, the three together imply that the author of Waverley was Scott.

From this we can say that though the proposition "the present king of France is bald" is meaningful but it is false. Because, the first part of their analysis that is, there is at least one person who is the present king of France is false, and it makes the whole proposition false.

According to P.F. Strawson, while it is linguistic expressions which have meaning, it is uses of linguistic expressions which refer, and in particular, uses of sentences - statements - which are true or false. The expression "the present king of France" is quite meaningful, but the use of that expression fails to refer

and consequently, a use of a sentence containing that expression fails to make a true or false statement. There is an ambiguity in Strawson's thesis that an utterance of "The present king of France is bald" does not, as Russell thinks, entail, but presupposes, that there is a present king of France, some passages suggest that it is the speaker who presupposes that there is a present king of France, to others, that presupposition is not this kind of epistemological relation, but a logical relation holding between the statement that the present king of France is bald, and the statement that there is a present king of France. According to Strawson, logical relation holds only between statements, this resolves the first ambiguity of the utterance "The present king of France is bald". He says it is a statement, a statement is either true or false, but it is neither true nor false. To insist that it is a relation between statements, Strawson's account of presupposition is just like Frege's and secondly, that if an utterance of "The present king of France is bald" does, after all, constitute a statement, then Strawson's criticism that Russell's mistake was to fail to distinguish between sentences and statements cannot be sustained.

In order to bring out Russell's confusion, Strawson draws some distinctions. These distinctions are

very important because on them he builds up his whole arguments against Russell. Here, he refers to an expression which has a uniquely referring use as "an expression" and refers to a sentence beginning with such an expression as "a sentence". The distinctions are between:

- (A₁) A sentence.
- (A₂) A use of a sentence.
- (A₃) An utterance of a sentence and correspondingly between,
- (B₁) An expression.
- (B₂) A use of an expression.
- (B₃) An utterance of an expression.

As for example, the sentence 'the king of France is wise'. This sentence may be uttered at various times. That it is correct to utter the sentence during the reigns of the French monarch and also it is very natural to utter on various occasions at various times.

There are obvious differences between different occasions of the use of this one and the same sentence. One may utter it in the reign of Louis XIV would make a true assertion whereas another man may utter it in the reign of Louis XV and would make a false assertion. Here though the sentence is same but it has got different uses.

Strawson says that, Russell fails to notice the particular use of a sentence. He meant to say that Russell does not understand whether the sentence's present use is genuine or a spurious one, that is, whether it is used to talk about something or it is just used to make believe. Suppose, if today someone utters the sentence 'the king of France is wise', then the sentence, uttered by the man is neither true nor false. Because at present there is no king of France. It is a pseudo use of the sentence. We simply have to say that there is no king in France. Truth and Falsity are properties of a sentence when it is genuinely used. The sentence "The king of France is wise" is certainly significant, but it does not mean any particular use of it, is true or false, rather his utterance would in some sense be evidence that he believes that there is a king of France. But the sentence 'the king of France is wise' is not meaningless. It is significant when it is uttered. Only thing is that we fail to say anything true or false, because we simply fail to mention anybody by this particular use of that perfectly significant phrase. Though we think that the use of the sentence is a genuine one, but it is a spurious use of the sentence, and also it is a spurious use of the expression.

Strawson is careful to say that it is the uses of

expressions which refer. But there is, again, some ambiguity about what he takes to be the conditions for successful reference. Some passages hint at a pragmatic account, according to which it is a sufficient condition for a use of an expression to succeed in referring to an object that the speaker have a certain object in mind, and his use of the expression brings that object to the hearer's attention - regardless, that is, of whether the expression used actually denotes that object. But generally Strawson prefers a semantic account, according to which, it is necessary, for a use of an expression to succeed in referring to an object, that the expression denotes that object. ✓

Then I have discussed Mill's view of proper name. He is on the view that proper names do not have meaning. Another philosopher who denies that proper names have meaning is Kripke. In this regard, I have discussed in detail the view of Frege.

According to Kripke, proper names are "rigid designators", that is, they have the same reference in all possible worlds. For example, the name Aristotle designates the very same individual in all possible world. And the definite description "the greatest man who studied under Plato", designates Aristotle in the actual world's. ✓

But it may also designate some other individual in other possible worlds. Kripke, does not deny that the reference of a name may fix by means of a definite description. By definite description one might introduce a name to denote the referent, in the actual world. He denies that the definite description gives the sense of the name.

In short, I have discussed the views of Plato, Quine, Frege, Russell, Strawson, Mill, Kripke, Schlick and Ayer. It may be noted here that I have not arranged the said philosophers in a chronological order, but in a thematic order. I have included Plato's view with a specific purpose in mind, which is as follows. Many philosophers think that Plato does not have philosophical logic. I have tried to show that this view is mistaken because of the fact that Plato has a full-fledged philosophical logic, in fact, it is no exxageration to say that Plato anticipates Frege.

Needless to point out that the concept of Reference has been fascinating not only philosophers, but also logicians and linguistics. It is a well known fact that Russell rejects the theories of meaning of Frege, Russell, advocates his own theory of Denoting or Referring, this theory is known as theory of descriptions. And this theory has its own supporters and critics. The main critic of his theory is Strawson. Russell is of the view that

Reference and meaning are distinct from one another, he makes it very clear that referring phrases are bereft of meaning in isolation apart from the sentences in which they occur. He propounds the view that a sentence without reference would be false. He opines that though the sentence is false it would still have a meaning. Therefore, he seems to identify meaning with truth and falsity. Strawson rejects this view as false. The quarrel between Russell and Strawson has been discussed in this Chapter. Russell replied to Strawson's criticism in his article "Mr. Strawson on Referring", when Strawson was asked as to why he did not reply to Russell's above mentioned article by the supervisor of this thesis, he replied that it was not worth replying. I agree with Russell that the reference and meaning must be separated from one another. However, I agree with Strawson that Russell is guilty of progressively conflating and identifying meaning with truth or falsity. I have discussed the theory of name vis-a-vis Mill, Quine and Kripke.

I have discussed the views of Schlick and A.J. Ayer with regard to the concept of meaning. Both of them are logical positivist. Historically, the logical positivism advocates two theories of meaning, namely, verification theory of meaning and verification principle.

Verification theory of meaning consists of many mistakes, that is, why both M. Schlick and A.J. Ayer advocate verification principle in order to rectify the defects of verification theory of meaning. Schlick's slogan is "meaning of a sentence is verification". He has his own difficulties. However, credit must be given to him for making a clear cut distinction between empirical possibility and logical possibility, and also between empirical impossibility and logical impossibility. A.J. Ayer discusses his principle of verification in his magnum opus "Language truth and logic". His theory has been criticised on many grounds. I will not go into detail since this grounds are too well-known. Nevertheless, I must point out that logical positivism is still being advocated and supported by quite a few contemporary philosophers. One such philosopher is F. Waismann. He has made a powerful defence of logical positivism by means of the concept of open texture. ✓

I do not have the temerity to claim that I have been able to solve the problem of Reference and Predication. However, I hope I have succeeded in highlighting importance and relevance of this problem in philosophical logic with the help of above mentioned philosophers.

There is a traditional doctrine in Western

Philosophy to the effect that the subject-predicate distinction in grammar parallels the particular universal distinction in logic. Aristotle and most other philosophers have supposed a fundamental connection between the subject-predicate distinction and the particular-universal distinction. In the terminology of subjects and predicates, a universal can be the predicate of a proposition, a particular cannot.

When we consider various sentences in our language, there is always a distinction. This distinction is between the part of the sentence, which can stand for what something is said about, and a part which can stand for or express what is said about something. The former part is called a logical subject, the latter is called a logical predicate. As for example, when we say "Ram is intelligent" we seem to be doing two things referring to a certain thing, namely, "Ram" and saying something about him, namely, that "he is intelligent". I have discussed this distinction between subject and predicate in the fourth chapter.

In that chapter, I have tried to discover whether there is a real distinction between subject and predicate or not. I have done so by exploring definitions of "subject term" and "predicate term". I have tried to

arrive at satisfactory definitions. To find out the satisfactory definitions, I have concentrated mainly on two things, that is, (i) they must have their basis on the distinction between standing for what something is said about, and standing for or expressing what is said about something, and (ii) they must yield certain rather definite results. The subject-predicate distinction is designated to cut up sentences in a certain way, and for a great number of sentences, there is general agreement as to which part of the sentence is to be the subject and which the predicate. Sometimes, though not very frequently, a different approach has been taken with regard to this matter. Sometimes, "subject" has been defined as that which can play a certain role in some sentence or other, and sometimes "predicate" has been defined as that which can play a certain role in some sentence or other.

In this chapter, I have also discussed the views of P.F. Strawson expressed in the second part of his book Individuals. Strawson sets out to examine the subject-predicate and particular-universal distinctions for features which would account for a relation between them of the kind envisaged by Aristotle. Such features, he concludes, in fact, are to be found. The theory at which Strawson arrives may, indeed, be regarded as a modern

reformulation of Aristotle's theory of universals, which it resembles not only in the fundamental respect just indicated, but in many other respects as well.

In this matter, I have taken off from Aristotle. In traditional definition of "predicate", it is assumed that if we make an assertion about something, then we must be asserting something about the thing. Thus, we can say that distinction between subject and predicate is based on assertion. Because, if assertion has been made about something, then immediately the question arises 'about what thing has been asserted'. Thus, one can easily distinguish between these two things. Firstly, about which something has been asserted, and secondly, about that which it has been asserted.

According to Leibnitz, all sound philosophy should begin with an analysis of proposition. Leibnitz's philosophy begins with such an analysis. Leibnitz's contention is that all true propositions are analytic. He makes a distinction between truth of reason and truth of fact. These two are related respectively to what Leibnitz calls the Law of Contradiction and the principle of sufficient Reason, which are the two great principles of Reason.

Leibnitz and Kant both hold that there is a fundamental distinction between propositions that are necessary, and those that are contingent, or, in Kant's language, empirical. The difference between the views of Leibnitz and Kant on necessity is often brought out by reference to the fact that Leibnitz considered mathematical truths to be true by definition whereas Kant holds that they are synthetic but apriori. The main distinction between necessary and contingent truths is that truths of reason are necessary ... and their opposite is impossible. When a truth is necessary the reason of it can be found by analysis. But there must also be a sufficient reason for contingent truths or truths of fact. There must be a sufficient reason for everything. This sufficient reason is contained in the terms themselves. But the sufficient reason is not known to us but only to God. Hence all true propositions are analytic only to God.

Kant's distinction between analytic and synthetic judgement is very familiar. An analytic judgement is one in which the concept of the predicate is a part of the concept of the subject. It is called an explicative judgement, because the predicate does not say anything which is not a part of subject. The truth of this judgement depends on the law of contradiction. This means

that an analytic judgement cannot be denied without logical contradiction. Kant's own example brings out this point very clearly. That example is "all bodies are extended". The idea of extension, which is the predicate, is a necessary part of the idea of body, which is the subject. There cannot be anybody without extension. A synthetic judgement, on the other hand, affirms or denies of a subject a concept of predicate, which is not a necessary part of the concept of the subject. Kant calls this sort of judgement, an 'amplicative' or 'augmentative' judgement, for the concept of predicate adds something to the concept of the subject.

The distinction which Kant makes between synthetic and analytic is similar to that of Leibnitz's distinction between truths of reason and truths of facts. Quine points out that the Kantian distinction between synthetic and analytic has the following two drawbacks, namely, (1) The distinction applies only to those statements which are of the subject-predicate form, and (2) it appeals to a notion of containment, that is, Kant holds that a statement is analytic if it is true by virtue of meanings of the terms it contains, independently of facts.

Quine denies the existence of the analytic-synthetic distinction altogether. He is of the opinion that even

with the help of a precise artificial language, it is not possible to separate analytic statement from synthetic one.

P.F. Strawson claims that there is another difference in function between subject and predicate. To him, subjects have a certain completeness about them which predicates lack. As for example, if some one assertively says, "Socrates is wise", then "Socrates" is a grammatically complete answer to the question. But the predicate of this sentence does not, by itself, constitute a complete answer to this question. For this purpose, it is incomplete.

Strawson says that Particular-Universal distinction is based on subject-predicate distinction, that is, particulars unlike universals, can appear as subjects only, never as predicates. But it is indeed, be a mistake to try to find the particular-universal distinction on the subject-predicate distinction. It is also wrong to think that the subject-predicate distinction could be explained independently of the particular-universal distinction.

Russell regards particulars as entities which can only be subjects. The particulars cannot be predicates. It is because a particular is naturally conceived as a this.

As for example, "This book is red". Here, it is referring to a particular, or a specific book. Here, it is used as a subject. Thus, particular is naturally conceived as a this; or something intrinsically analogous to a this. And, therefore, such entity seems incapable of being a predicate. In the above example, "The book" is a particular book. But "red" is not considered to be a particular, but a universal.

Thus, we have found that there is a relation between 'particulars and universals' and between 'subject and predicate'. Some logicians consider the particulars to be subjects, and the universals to be predicates. And, the problem of 'Reference and Predication' is ultimately connected with that of 'particular and universal' and 'subject and predicate'.

I have tried to analyse the concepts of subject and predicate with the help of Aristotle, Leibnitz, Kant, Russell and P.F. Strawson and Quine. The views of Aristotle, Leibnitz, Kant, Russell and Strawson are very well-known, therefore, I would not go into all the intricate in details in the concluding part of this chapter. However, I would like to say a few things about Quine's position. Quine rejects the distinction between analytic and synthetic

statement. He rejects this distinction, according to me because of his pronounced bias towards pragmatism. I agree with Strawson and H.P. Grice that such a distinction is valid.

BIBLIOGRAPHY

BIBLIOGRAPHY

- Aaron, J. Richard. The Theory of Universals, Oxford: At the Clarendon Press, 1967.
- Ackrill, J.L. "Plato and the Copula", Sophist Volume I. Greogory Veastor (Ed.), Anchor Books Doubleday and Company, Inc. Garden City, New York, 1971.
- Ammerman, R.R. (Ed.) Classics of Analytic Philosophy, Bombay, New Delhi: Tata McGraw Hill Publishing Company Ltd., 1965.
- Aristotle. Works of Aristotle. Translated into English, Ed. W.B. Rose, London: Oxford University Press, 1928-52.
- _____. Categories. Translated by A.E. Wardman and J.C. Cread in the Philosophy of Aristotle, Mentor Classics, 1963.
- _____. Posterior Analytics. Translated by Hugh Tredennick, Cambridge: Harvard University Press, 1966.
- _____. Aristotle's Prior and Posterior Analytics. A Revised Text with Introduction and Commentary by W.D. Ross, Oxford, 1949.
- Ayer, A.J. Language Truth and Logic, Gollanez, London, 1946.

- Barnes, Jonathan (Ed.). Aristotle, University of Geneva, Cambridge University Press, 1995.
- Bason and O'Connor. Introduction to Symbolic Logic, Oxford: Oxford University Press, 1953.
- Berkeley, George. Treatise Concerning the Principles of Human Knowledge, Ed. A.J. Ayer and Raymond Winch, London: Routledge and Kegan Paul, 1952.
- Bhattacharjee, Sibajiban. Doubt, Belief and Knowledge, New Delhi: Allied Publishers, 1987.
- Bhattacharjee, Sailajakumar. Perception and Predication, Calcutta: Progressive Publishers, 1968.
- Bostock, David. Logic and Arithmetic Natural Numbers, Oxford: Oxford University Press, 1974.
- Carl, Wolfgang. Frege's Theory of Sense and Reference Its Origin and Scope, Cambridge: Cambridge University Press, 1994.
- Cooper, E. David. Philosophy and the Nature of Language, London: Longman Group Ltd., 1978.
- Cornford, F.M. Plato's Theory of Knowledge, London, 1935.
- Dravid, Raja Ram. The Problem of Universals in Indian Philosophy, Motilal Banarsidas, 1972.
- Frege, Gottlob. On Sense and Reference, Ed. Peter Geach and Marse Black. Trans. from the Philosophical Writings of G. Frege, London, 1952.

- Frege, Gottlob. On Concept and Object in his Philosophical Writings. Trans. M. Black and P. Geach. Blackwell, 1966.
- Geach, P.T. Reference and Generality, Cornell University Press, 1962.
- George, Pitcher. Wittgenstein, the Philosophical Investigations, Edited by George Pitcher. London: Macmillan, 1968 (Reprinted, 1970).
- Haack, Susan. Philosophy of Logic, Cambridge: Cambridge University Press, 1978.
- Hume, David. A Treatise of Human Nature, Ed. with an Analytical Index by L.A. Selby Bigge, Oxford: Clarendon Press, 1888.
- John, Robert. Modern Deductive Logic, MacMillan, Ackermann, 1970.
- Kant, I. Critique of Pure Reason, Trans. by N.K. Smith, London: Macmillan, 1934.
- Leibnitz, Gottfried Wilhelm. Monadology. Trans. by Robert Latta, Oxford: Oxford University Press, 1951.
- Lloyd, G.E.R. Aristotle the Growth and Structure of His Thought, Cambridge: Cambridge University Press, 1968.
- Lock, John. An Essay Concerning Human Understanding, Ed. Raymon Wilburn, Everyman's Library, 1947, Book III.

- Mill, J.S. A System of Logic, Longman's Green Reader and Dyer, 1886.
- Mitchell, David. An Introduction to Logic, Hutchinson University Press Library, London, 1962.
- Owen, G.E.L. Plato On Not-Being in Plato Volume, Greogory Veastos (Ed.), Anchor Books, Garden City, New York, 1972.
- Passmore, John. A Hundred Years of Philosophy, Penguin Books Ltd., 1957.
- Plato. Sophist, in the Dialogues of Plato, Trans. B. Jowett, Random House, New York.
- _____. Theatetus, Translated from the Greek with Notes by McDowell, Oxford: Clarendon Press, 1973.
- _____. Dialogues of Plato, Trans. from Greek into English by B. Jowett with an Introduction by Prof. Raphel Demos, New York: Random House, 1937.
- _____. Plato's Republic, Trans. with an Introduction from Greek by A.D. Lindsay, London, Dent, 1935, Reprinted 1969.
- Putnam, Hilary. Mind, Language and Reality, Philosophical Papers, Volume 2, Cambridge University Press, 1975.
- Quine, W.V.O. From a Logical Point of View, Harvard University Press, 1953.

- Russell, Bertrand. A Critical Exposition of the Philosophy of Leibnitz, London: George Allen and Unwin Ltd., Museum Street, 1958.
- _____. Treatise Concerning the Principles of Human Knowledge, A Touchstone Book, 1948.
- _____. History of Western Philosophy, New York, 1945.
- _____. Logic and Knowledge, Ed. by Robert Charles Marsh, London: George Allen and Unwin, 1977.
- Sammers, Fred. The Logic of Natural Language, London: Clarendon Press, 1982.
- Schlick, M. A New Philosophy of Experience, Publication in Philosophy, Ed. College of Pacific, 1933.
- Sen, Pranab Kumar. Reference and Truth, Indian Council of Philosophical Research, 1991.
- Staniland, Hillary. Universals, London and Basingstoke: The Macmillan Press Ltd., 1972.
- Strawson, P.F. Philosophical Logic, Oxford Readings in Philosophy, Oxford University Press, 1967.
- _____. Individuals, University Paper Backs, Methuen, London, 1959.
- _____. Introduction to Logical Theory, Oxford, May, 1952.
- _____. Subject and Predicate in Logic and Grammar, Methuen and Co. Ltd., 1974.
- _____. Logico-Linguistic Papers, Methuen and Co. Ltd., 1971.

Tomny, Martin S.D. Guttamplan. Logic and Comprehensive Introduction, New York, London, 1971.

Travels, Charles and Rozenber, J.F. (Eds.) Readings in the Philosophy of Language, Prentice Hall Inc. Englewood Cliffs, New Jersey, 1971.

Wang, Mao. From Mathematics to Philosophy, London: Routledge and Kegan Paul; New York: Humanities Press, 1974.

Wilson, J. Cook. Statement and Inference, oxford, 1926.

Woozely, A.D. "Universals" in Encyclopedia of Philosophy, New York: Macmillan, 1968, Vol. 8.

ARTICLES

Jarvis, Judith. "Notes on Strawson's Logic", Journal of Philosophy.

J.R. Searle. "Proper Names", Mind 67, 1958.

P.F. Strawson. "On Referring", Mind 59, 1950.

P. Geach. "Subject and Predicate", Mind 59, 1950.

Quine, W.V.O. "Two Dogmas of Empiricism", Philosophical Review 60, 1951.

Randall, John H. "Straw on Predication", The Journal of Philosophy, Volume LXXIII, No. 12, June 24, 1970.

Russell, Bertrand. "Mr. Strawson on Referring", Mind, 1957.

_____. "On Denoting", Mind, 1905.

Urmson, J.C. "Review of Individuals", Mind, 1961.

William, B.A.O. "Review of Individuals", Philosophy, 1961.

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