

CHAPTER THREE:

The Pursuit ^{of} Logical Form: A Criterion of Understanding the Nature of Language:

Russell's philosophical analysis of language actually hinges on in the understanding ^{of} the true logical form of language. That is why; Russell at the very outset tries to dig up the atomic form of language. In his Logical Atomism, Russell says, "My own logic is atomic and it is this aspect upon which I should wish to lay stress."²⁰ Owing to understand the notion of 'logical form', it is necessary to understand the reference theory of meaning as there underlies a close relationship between these concepts. There is no question of doubt that the so-called referential theory of meaning has played a vital role in Russell's method of linguistic analysis. This is reflected through the proper understanding between the logical form of proposition in one hand and the ontological forms of the facts on the other. It is important to note here that Russell's theory of meaning at least in part was influenced by Mill's logic. There is no question of doubt that the influence of Mill on philosophers of the late nineteenth and early twentieth centuries was, in general, very great and it was perhaps more strong enough on Russell. It is important to note here that Russell was heavily influenced by Mill in introducing his 'naming' function of language.²¹ According to Mill, 'names' and 'naming' have played an important role in logical theory. For him every proposition is formed 'by putting together two names. More specifically, every proposition affirms or denies one of these names of the other'.²² In this process, Mill classifies all types of words into two categories, such as, names and not names. The words, which are not designated as names are called **syncategorematic words** which acquire meaning only in context. According to Mill names and adjectives are context free names and the paradigm for meaning is naming and his whole analysis of linguistic expressions is conditioned by this fact.

We think that the influence of Mill on Russell is immensed and it has been revealed in certain passages of his **Principia Mathematica**. Like Mill, Russell considers the nomen-

²⁰ Russell, Bertrand: Logic and Knowledge, Essays 1901 to 1950, edited by Robert Charles Marsh, London and New York, p.323.

²¹ Russell, Bertrand: My Philosophical Development, London, George Allen and Unwin Ltd., 1959, p.28.

²² Mill, J.S. : A System of Logic, London, 1936, p.13.

nominatum relationship as paradigmatic of all non-syncategorematic words. It has also been unveiled in Russell's 'Philosophical Grammar' in which Russell treats adjectives (general names) and verbs as referential in just like the same way proper names are referential. What does an adjective or a verb mean? According to Russell, the meaning of an adjective or a verb is determined by mapping or locating the appropriate object to which it refers. Proper names, in general, designate things or objects; adjectives and verbs designate relations. However, proper names, adjectives and verbs are very much alike in the sense that all designate or may be used to designate- what Russell calls, in brief, 'terms'. Russell says, "Whatever may be an object of thought, or may occur in any true or false proposition, or can be counted as one, I call a term."²³ Russell at times apprehends a term in terms of unit or individual and entity. When a term is being apprehended in terms of unit or individual, it means one; but when it is apprehended in terms of entity, it is understood in terms of being. Accordingly, a man, a class, a number, a relation, a chimera that can be mentioned is a term. If a word has meaning, Russell opines, there must be an extra linguistic entity of some sort corresponding to it whether the word in question were a noun, a verb, or an adjective and whether the referent in question were a physical object, an abstraction, a fiction or whatever. This is, we think, is an extreme form of referential theory of meaning that has taken place in Russell's **Principles of Mathematics**. However, it is important to note that although Russell to some extent subsequently rejects the extreme form of reference as mentioned above, nevertheless, he always understands meaning in terms of reference. This is much more reflected in his **Philosophy of Logical Atomism** (from now on PLA) in which Russell inclines to say that the components of a proposition are the symbols. Accordingly, in order to understand the proposition, we must understand the symbols by means of which the proposition under consideration is constructed. And again the components of the fact, which make a proposition as true or false are the meanings of the symbols which we must understand in order to understand the proposition. For Russell, words in sentences designate elements of facts and these elements are the meanings of the words. Facts, for Russell, are kinds of complexes made up of various objects that are the referents of words in the proposition asserting the facts. The fact correspondences the proposition 'The cat is on the mat'

²³ Russell, Bertrand: My Philosophical Development, op. cit., p.44.

would be a complex of the referent of the words, 'the cat', 'the mat' and the relational words 'one is on the other'. According to Russell in order to have a meaning a word must stand for some entity; i.e., it must mean something. If a word fails to designate something, it thereby lacks meaning. Thus it appears clear that Russellian understanding of language and linguistic analysis are primarily concerned with the propensity of equating meaning and reference. This has highly been reflected in his book **My Philosophical Development** where he says, "I have never been able to feel any sympathy with those who treat language as an autonomous province. The essential thing about language is that it has meaning i.e., it is related to something other than itself, which is, in general, non-linguistic."²⁴ According to Russell the basic trend of language is the semantic trend and the basic function of language is the referring function.

Different Senses of Logical Form:

Although the main objective of this chapter is to dig up the 'logical form', but we have outlined and examined Russell's theory of meaning simply because the 'logical form' finds its foothold or relevance in terms of proposition. Russell's theory of meaning is attached with proposition. For Russell in knowing the logical form of the proposition is the ultimate purpose of all philosophical analysis of language. According to Russell, the grammatical form of a sentence may not be equated at times in its true logical form of proposition. Unlike the grammatical form of a sentence, the logical form is the real, true form of the sentence. However, the true logical form of a sentence cannot be reflected with the mere analysis of sentences. So the sole objective of Russell's analysis of language is to dig up the true logical form of proposition. Russell therefore introduces or addresses linguistic analysis as a philosophical method to resolve certain problems he himself encountered in symbolic logic as well as the foundation of mathematics. Thus, Russell initial approach towards his linguistic analysis as a philosophical method is formalistic as he is emphasizing structural and syntactical features of language. Russell inclines to say that it is important to analyze proposition in terms of the general schema underlying the particular content of a proposition, so that the propositions having

²⁴ Russell, Bertrand: *Ibid.* p.14.

different subject matters can be said to have identical forms. For Russell the propositions, such as, Aristotle is mortal, Ram is honest, The rose is red, etc., have something in common, which is clearly indicated by to be verb 'is'. This common feature is, of course, their 'form'. Russell says, "It is form, in this sense, that is the objects of philosophical logic."²⁵

According to Russell, when the form of propositions is determined on the basis of common feature, then it is called the narrower sense of the 'logical form' of propositions. Here the propositions, in question, can be said to have a common form because in all cases the word 'is' is the "is" of predication and expresses the kind of relationship existing between some object and a property ascribed to it. All the propositions cited above exemplify the same logical schema, and this, in the narrower sense, is their logical form. Such type of logical form is methodologically required as it facilitates to know their logical relationships. It is important to note that in formal logic the content or subject matter of a proposition is not at all relevant, only the abstract form or the so-called true logical form is required in inferences which characterize logical deduction. Accordingly, it can be said that even in the narrower sense the concept of logical form deserves formal significance for Russell. Russell seems to conceive that the whole metaphysical systems have resulted from certain erroneous assumptions regarding the form of propositions. Russell in his **Logic and Knowledge** says that analyses of mathematical propositions help him to realize that pluralism and the reality of relations are the means through which mathematical propositions can be examined. He also comes to know with the help of logical doctrine that every proposition has a subject and a predicate. Russell says, "This doctrine is one which Leibnitz shares with Spinoza, Hegel, and Mr. Bradley; it seemed to me that, if it is rejected, the whole foundation for the metaphysics of all these philosophers is shattered. I therefore return to the problem which had originally lead me to philosophy, namely, the foundations of mathematics, applying to it a new logic derived largely from Peano and Frege, which proved (at least, so I believe) far more fruitful than that of traditional philosophy."²⁶

²⁵ Russell, Bertrand: Our Knowledge of the External World, New York, 1960, p.41.

²⁶ Russell, Bertrand: Logic and Knowledge, op. cit., p.324.

According to Russell, the quest for true logical form of proposition is the only way through which one can reach closer to reality. For Russell philosophy had erred in adopting heroic remedies for intellectual difficulties and solutions were to be found mere by greater care and accuracy. However, the greater care and accuracy can only be maintained by lessening prejudiced analysis of the forms of propositions. According to Russell the true logical forms of propositions will disclose that it is a gross misrepresentation of linguistic forms to regard them all as reducible to the subject-predicate form. It is really a mistake on the part of traditional logic to apprehend all propositions in the subject-predicate form. Russell, however, seems to believe that many propositions are irreducibly relational and we cannot, without distorting their true forms, interpret them as anything else. Considering the proposition, ‘ This thing is bigger than that’, for instance, Russell argues, “ If we say ‘ this thing is bigger than that’ , we are not assigning a mere quality of ‘this’, but a relation of ‘this’ and ‘that’”²⁷ The same fact can be expressed by saying that ‘ that thing is smaller than this’ in which the subject is changed grammatically. Thus Russell opines that propositions stating that two things have a certain relation have a different form from subject-predicate propositions. Any failure to foresee this difference has been the source of many errors in traditional metaphysics. Thus, in engaging in much philosophical analysis, Russell conceives, it is essential to dig up the true logical form of proposition as it helps one to avoid some pre-determined form, such as the subject-predicate schema. An adequate analysis of language leads one into a metaphysical theory, which misleads the true nature of reality. In his essay **Logical Atomism**, Russell explicates this point in the following way: “The influence of language on philosophy has, I believe, been profound and almost unrecognized. If we are not to be misled by this influence, it is necessary to become conscious of it, and ask ourselves deliberately how far it is legitimate. The subject-predicate logic, with the substance-attribute metaphysics, is a case in point We must be on our guard if our logic is not to lead to a false metaphysics.”²⁸ Russell equally emphasizes on the syntactical features of propositions. For him any proposition can be put into a form in which it has a subject and predicate, united by a

²⁷ Russell, Bertrand: *Our Knowledge of the External World*, op. cit., p.42.

²⁸ Russell, Bertrand: *Logic and Knowledge*, op. cit., p. 330-31.

copula. Accordingly, it is natural to infer that every fact has a corresponding form and consists in the possession of a quality by a substance. This actually leads Russell into monism, since the fact that there were several substances, which would not have the requisite forms. Philosophers, however, believe themselves free from this sort of influence of linguistic forms, but most of them, Russell opines, seem to be mistaken in this belief. Thus it seems clear that analysis of linguistic forms is not mere formal exercise, it has also been undertaken for the purpose of exhibiting interesting features of logical syntax. The forms of propositions have a metaphysical significance and proper analysis of certain kinds of propositions can illuminate the structure of the reality corresponding to them. Thus the true logical form of proposition is restricted to syntactical feature of propositions which represent the way in which the constituents of a proposition are related. The syntactical features of propositions are in true sense logical. Russell says, "In every proposition there is, besides the particular subject matter concerned, a certain form, a way in which the constituents of the proposition are put together."²⁹ Thus it can be said that logical form involves syntax, but not vocabulary.

Let us explain this point with the help of an example. In traditional logic, the proposition 'Socrates loves Plato' is recognized only one form, i.e., the subject-predicate form of proposition. In order to exhibit its true structure, this proposition is interpreted as 'Socrates is the lover of Plato' and thereby shows that it really ascribes a predicate to Socrates, viz., the property of being a lover of Plato. However, Russell seems to conceive that in interpreting a proposition in this way is misleading and philosophically unjustified. According to Russell such type of analysis involves a bias. However, if we approach, opines Russell, analysis of language without such a bias, we will see that the proposition under consideration is not a subject-predicate proposition at all, but a relational one. Here the word 'loves' in the proposition 'Socrates loves Plato' designates a relation, more specifically a binary relation, between the two constituents, namely, Socrates and Plato.

The logical form, so far has been analyzed, does not involve an investigation of the status of the constituents and hence does not extend to the domain of 'vocabulary'. Rather it is predominantly concerned to exhibit logical form of two or more constituents, which

²⁹ Russell, Bertrand: *Our Knowledge of the External World*, op. cit., p.40.

function as a name. In the proposition ‘ Socrates loves Plato’, it is assumed that ‘ Socrates’ and ‘ Plato’ function as names and refer to genuine elements in the fact which the proposition asserts. Here an attempt has been made to analyze the proposition so as to exhibit the relationship between the constituents function as names. Barring this, the status of the words standing for constituents, and therefore designating ontologically basic entities in the corresponding fact is not called into question. A logical form, which is confined only within the relationship between the constituents which function as names and which does not encompass the constituents of propositions, is designated as the narrower sense of the logical form of proposition. When Russell actually refers to the form or logical form of a proposition, he thereby understands the form of proposition in the narrower sense.

Apart from the narrower sense of the logical form of proposition, there we find another sense of the logical form of proposition, what is called by Russell an extended sense of the logical form of proposition. Here the concept of logical form can be said to be involved in the analysis of propositions, which do include an examination of the constituents. So the next relevant point is to explicate the objective of an extended sense of the logical form of proposition in Russell’s philosophy of language and to delineate the way in which it involves propositional constituents. We think that a suitable answer to the above question can be found in considering the relationship, after Russell, between proposition and fact. According to Russell there underlies an isomorphism between proposition and fact. Facts cannot only be said to have a form, but precisely the same form as the propositions, which assert them. Whether the relationship between proposition and fact is necessary is not clear from Russell, but it appears clear that there underlies a close proximity between propositions and facts. Russell says, ” Two facts are said to have the same ‘form’ when they differ only as regards their constituents. In this case, we may suppose the one to result from the other by substitution of different constituents. For example, ‘Napoleon hates Wellington’ results from ‘Socrates loves Plato’ by substituting Napoleon for Socrates, Wellington for Plato, and hates for loves. It is obvious that some, but not all, facts can be thus derived from ‘Socrates loves Plato’.³⁰

³⁰ Russell, Bertrand: “On Propositions: What They Are and How They Mean”, Proceedings of the Aristotelian Society, Sup. VII, 1919 or *Logic and Knowledge*, op. cit., p.286.

It seems clear from the above passage that owing to discover the true form of the fact, it is necessary to determine the form of the proposition corresponding to it. This, however, can be accomplished by confining ourselves to an investigation of syntax; in addition, it is necessary to examine the status of the putative constituents of the proposition. Russell certainly does not underestimate the importance of knowing the true constituents of proposition. What he intends to say is that since the true form of proposition corresponds the true form of fact, it is necessary at the very outset to know the logical form of the proposition. Thus Russell goes on to examine in what sense the constituents of the proposition play an important role in determining the form of the proposition represents. In the later stage, Russell comes to know that there are some words and phrases, which seem to function as constituents of propositions though they really cannot be regarded as such. However, a true logical analysis must expose these expressions for what they really are. In this way the real constituents of the proposition become evident. In the same way the form that the proposition assumes with respect to syntax as well as vocabulary will be exhibited. Here the structure of the proposition is affected by the status of the symbols ostensibly functioning as constituents. Russell says, “ The word ‘Piccadilly’ will form part of many significant propositions, but the facts corresponding to these propositions do not contain any single constituent, whether simple or complex, corresponding to the word ‘ Piccadilly’. That is to say, if you take language as a guide in your analysis of the fact expressed, you will be led astray in a statement of that sort.”³¹ Here Russell intends to say that the presence of the word ‘Piccadilly’ in proposition misleads us concerning the forms of the fact corresponding to them, since there is no such constituent to be found in these facts. So long Russell did not question the status of the constituent-symbols, so long as he took them at their grammatical ‘face-value’ as symbols for genuine constituents, he naturally assumes these as the fundamental elements in the propositions in which they occurred. However, when he came to question their status, he saw that it was necessary to take account of how this status affects determinism of the overall structure of the proposition and of the fact it asserts or denies.

Russell therefore rejects any unconstructive grammatical form as a reliable guide to logical form. It is important to point out here that Russell was not fully a disbeliever of

³¹ Russell, Bertrand: *Philosophy of Logical atomism*, op.cit. p. 191.

grammatical form. Even in his earlier observation in **Principia of Mathematics**, Russell seems to conceive that a grammatical form is a fairly reliable index of logical form and thereby he suggests that in analyzing language grammar, though may not be taken as our master, but may be taken as our guide. Russell like many others philosophers was not a blind disbeliever of ordinary language grammar. He rather defends ordinary grammar against claims of philosophers such as Bradley who would, he claimed, misrepresent ordinary grammar for their own purposes. Russell conceives that although the grammar of ordinary language may not be a surer guide to lead towards logical form, but it would certainly lead us nearer to the correct logical form. Russell says, “Although the grammatical distinction cannot be uncritically assumed to correspond to a genuine philosophical difference,” still “on the whole grammar seemsto bring us much nearer to a correct logic than the current opinions of philosophers.”³² However, on the basis of various considerations, Russell seems to conceive that ordinary grammar is at least as misleading as it is illuminating. Even in his ‘Reply to Criticisms’, Russell inclines to say that ‘obstinate addiction to ordinary language is one of the main obstructions to progress in philosophy.’³³ This clearly indicates that unlike many other ideal language philosophers Russell was not very much harsh on ordinary language, rather he inclines to say that ordinary language to some extent is helpful and hence it should be considered as a useful guide in doing philosophy. However, Russell distrusts ordinary language as a surer guide of doing philosophy. We think that there underlies other factors too which contributed to the distrust Russell came to have in the philosophical adequacy of ordinary language. For Russell there is no question of doubt that ordinary language is defective as it misleads us regarding the true constituents of propositions. We think that Russell comes to realize the defect of ordinary language through his analysis of descriptive phrases. He seems to have conceived that there are some words which appear to function as constituents of propositions but in fact do not actually do so. It helps him to realize that in analyzing a significant sentence, one must not assume that each separate word or phrase has significance on its own account. Russell’s analyses of descriptive phrases represent a major turning point in his philosophy of language in general and his

³² Russell, Bertrand: Ibid. p.42.

³³ Schilpp, D.A. (ed): *The Philosophy of Bertrand Russell*, Evanston and Chicago, North Western University Press, 1944, p. 694.

conception of logical structure in particular. This leads him to place important limitations on the linguistic expressions, which can be said to function referentially. We shall certainly explore the significance of Russell's theory of descriptions in his philosophical analysis of language. Since this chapter aims at to explore the logical form of proposition in the wide sense, we accordingly have focused only on the relevant issues relating to this concept.

Structure of Facts:

Since Russell is keen to dig up the true logical form of proposition as the criterion of linguistic analysis, it is important for us to define the concept of proposition in Russellian sense. According to Russell, "A proposition may be defined as: what we believe when we believe truly or falsely."³⁴ For Russell whenever we believe, our beliefs are held to be either true or false. That makes sense to say to define a proposition in terms of belief; we have to determine what would be the sort of thing that can be believed, what constitutes 'truth' or falsehood in a belief. According to Russell, truth or falsity of a belief actually hinges on the fact to which the belief 'refers to'. What is a fact? Russell understands a fact anything complex if the word contains simple, then whatever it contains is a fact. It is raining, the sun is shining, and the distance from Kolkata to Siliguri, the earth moves round the sun, etc., are all facts. The question then is what does Russell mean by a complex fact? A fact, says Russell, is complex, if it has constituents. Socrates was Greek, he married Xantippe, he died of drinking the hemlock, are facts that all have something in common; namely, they are about Socrates, which is supposed to be a constituent of each of them. It is important to note here that the position of a constituent in a fact is crucial. For example, in the sentences 'Socrates loves Plato' and 'Plato loves Socrates' though have the same constituents, but they are different facts as the constituents by means of which they are constituted do not have the same position in the facts mentioned above.

According to Russell two facts may have the same logical form when they differ only in terms of their constituents. For example, Ram loves Sita results from 'Ravana hates Lakshana' by substituting Ram for Ravana, Sita for Lakshana, and hates for love. It makes sense to say that the fact 'Ravana hates Lakshana' is derived from the fact 'Ram loves Sita'; both of them have the same form. At the same time it can be said that this

³⁴ Russell Bertrand: *Logic and Knowledge*, edited by R.C. March, London and New York, p.285.

may not be the case in all facts having different forms. Russell represents the general form of a fact with the help of variables. He says that 'x' may be said to represent the form of the fact 'Socrates loves Plato'. However in dealing with ordinary language which is very much unobtrusive in nature, the fact thus stated can not be depicted unless sufficient care has not been taken up. Although facts are infinite as far as their form are concerned, but Russell primarily deals with the kinds of facts having only three constituents, namely, two terms along with a dyadic relation. For Russell one term may be replaced by other term, but a term can never be replaced by a dyadic relation. A fact contains two terms along with a relation is called dyadic or dual relation and the terms of dual relation are called particulars.

According to Russell every fact has its two sides, two opposite qualities, namely, positive and negative. That means every fact must be either in the form of 'xRy' or in the form of \sim xRy. Importantly, the negative fact has the same constituents as like as the positive fact. However the difference between these two forms of facts is ultimate and irreducible and this characteristic of form is similar as the form called its quality, namely, the positive and the negative qualities. Russell holds that just like the positive quality, the negative quality is equally important as far as the understandings of the facts are concerned. Without admitting the negative quality, the concept of incompatibility cannot be explained. The fact that 'The table is brown' is incompatible with the fact that 'The table is not brown'. Here one fact is complementary with other fact, which cannot be established without anticipating the negative fact. However there is a tendency or propensity of substituting a negative fact as mere absence of a fact, which according to Russell is not legitimate. When we say A loves B, it means a good substantial fact; but if we say that A does not love B, it merely expresses the absence of a fact composed of A and loving and B. It by no means involves the actual existence of a negative fact. However, Russell opines, the absence of a fact is itself a negative fact. In this case it is a fact that there is not such a fact as A loving B. Thus we cannot escape from negative facts by any means. Positive and negative facts are two sides of the same coin. In Wittgensteinian sense, both positive and negative facts are two senses of the same fact.