CHAPTER SIX

THE USES OF RECONSTRUCTIONISM

We have seen in the previous sequels that the sole objective of Russell's philosophical analysis of language is to dig up the true logical form of language. That is why, Russell at the outset of his analytical method seeks to have the true logical form of language. We have also noted that although unlike many other linguistic philosophers, Russell was not harsh against the legitimacy of ordinary language, but still he believes that ordinary language is duped by bad grammar and hence ordinary language would not be authentic in doing or practicing philosophy. This actually leads Russell to introduce the so-called logically perfect language- a kind of language, which is the outcome of reconstructionism. We have also noted that in pleading for a logically perfect language, Russell have sought a minimum number of vocabulary as the furniture of that language. In this regard, he includes only logically proper names and demonstrative pronouns as the true constituents or items of logically perfect language. All these things have been discussed in the previous sequels. In the present chapter we would like to explain and examine the uses of reconstructionism as a model of Russell's philosophical analysis of language. It is important to note here that the idea of reconstructionism should not be taken as a general method. Rather it includes different techniques, viz. the analysis of denoting phrases, the analysis of incomplete symbols, and the principles that dispenses with abstraction etc. Thus one can assume different models of reconstructionism within the parameter of Russell's philosophical analysis of language. Here we propose to discuss three models of reconstructionism, viz. (i) the theory of descriptions; (ii) the analysis of class symbols and (iii) the logical construction of physical objects. Although, Russell's analysis of ' numbers' as ' a class of similar classes' may be conceived as the first instance of his use of reconstructionism, but it was theory of descriptions that suggested to Russell the value reconstructionism might have as a general analytic method. We think it is important simply because his analysis of descriptive phrases lead him to realize that analysis is necessary to determine the true logical status of expressions presumed to

function referentially. So we propose to discuss the theory of descriptions first as a model of reconstructionism and then we pass into other models in turn.

The Theory of Descriptions:

Russell's theory of descriptions was first appeared in the famous article "On Denoting" in the year of 1905 and it has been called by F.P. Ramsey as 'paradigm of philosophy'. If we carefully focus on his "On Denoting", it appears clear to us that here Russell discusses various quantifier phrases including those of the form 'all so-and-so' and those of the form 'a-so-and-so' (indefinite descriptions). However, as far as his theory of descriptions is concerned, it is initially characterized as phrases of the form 'the-so-and-so'. Russell's theory of descriptions has two aspects, viz. informal and formal and within each aspect there we find two parts of which one part is associated with existential description-sentences and the other part is associated with all other description sentences. The informal aspect offers an analysis of descriptions in ordinary English whereas the formal aspect consists of definitions of the non-primitive P.M. - symbols, such as "□" (iota) whose in the formal language is intended to be close to the role of 'the' in English. In fact a full account of the scope of descriptions in English is to be obtained only through the formal aspect of the theory.

Russell's analysis of descriptions forms a part of his examination of 'denoting concepts'. What is a denoting concept? What does a denoting concept mean? A denoting concept, opines Russell, is a concept that is formed by annexing to a class concept, such as 'all', 'every', 'any', 'some', 'a' or 'the'. Accordingly, owing to describe as a denoting concept, we must use on of these concepts to designate a term of some kind. According to Russell whatever may be an object of thought, or may occur in any true or false proposition or may be regarded as one is called a term. In this regard, all terms, Russell conceives, are entities of some kind, whether they are physical objects, relations, properties, fictional beings, or whatever. Thus, he concludes, the role of a description in a sentence always stands for some term, to designate some kind of entity. By adopting the view that every concept proceeded by one of the six words just mentioned denotes some term, Russell thereby desires to equate denoting concepts with logically proper names. He criticizes

Frege's claim that a name has both a sense and a reference on the ground that 'only such proper names as are derived from concepts by means of *the* can be said to have meaning'[81] The implication of this statement is that those expressions formed by prefixing 'the' to some class concept have a logical function similar to that of ordinary proper names. The only difference to be noticed here is that the class concept has a meaning or connotation whereas the so-called ordinary proper names do have it.

The most philosophical importance of Russell's famous article 'On Denoting' is that it goes against two important philosophical ideas as expounded by both Meinong and Frege. In fact several considerations caused Russell to revise the view of denoting phrases and in "On Denoting", Russell vehemently attacks both Meinong and Frege for holding views similar to it. Against Meinong, Russell holds that the attempt to treat descriptions as names has intolerable consequences, ontological and other. Against Frege, Russell inclines to say that in distinguishing between the meaning and the denotation of descriptions and indeed of denoting phrases generally leads to an inextricable tangle. Unlike Russell, both Meinong and Frege have conceived descriptions as names. Russell, however, does not agree with them. According to Russell, the general defect of an interpretation of descriptions as names is that it cannot do justice to those cases in which the uniqueness condition is not satisfied. Because in such cases, it may happen that there is either nothing at all to exist or not precisely one entity answering the description. Description can be considered as names, says Russell, only when we are dealing with sentences in which the entity described actually exists. However, there would be countless sentences in which object described does not now exist and has never existed. For example, in the case of 'The golden mountain' the object described does not exist. Likewise in the case of 'The round square', the concept involves or leads to a self-contradiction. It is also important to observe that in some cases the description attempt to designate uniquely an individual that may exist, but is not unique. For example, in the case of "The inhabitant of London", the description 'the' designates something uniquely, but actually fails to do so. Moreover, if descriptions were to be treated as logically proper names, says Russell, then it would appear in some cases in which the uniqueness

[81] Russell' Bertrand: Principles of Mathematics, Cambridge, The University Press, 1959, First edition, London, p. 502.

condition is not satisfied. It may also be the case that the sentence in which the descriptions occur would be about nothing at all and therefore are meaningless. The big mistake that has been committed by both Meinong and Frege, says Russell, is that both of them have assumed that descriptive phrases function referentially and on the basis of this assumption they have tried to formulate a conception of their denotata that would make it possible to say that even in those instances in which the uniqueness condition is unfulfilled, there is still a denotatum of some type. Russell, however, disagrees with them by saying that the problem of the denotata of vacuous descriptions does not arise.

According to Meinong there are empty or denotationless descriptions (names). In this regard, Meinong makes a distinction between subsistence and existence in such a way that some things, which do not exist, nonetheless subsist. In other words, there are descriptions which may fail to denote or describe existing entity, but which may describe non-existent, but subsistent entity. Thus, unlike Russell, Meinong admits the so-called vacuous descriptions, which describe subsistent entity.

We think that Meinong's solution to the problem is radical in the sense that unlike Russell, Meinong admits vacuous descriptive phrases. Like real objects, Meinong admits pure objects, ideal objects which are not real in the sense of existing objects. According to Meinong all descriptions including those that describe existent, non-existent, self-contradictory entities designate some object. Meinong distinguishes three general classes of entities, namely, impossible objects, possible but non-actual and actual objects. Like many others, he admits the existence of actual objects; but unlike many others, he goes on to say that although impossible as well as possible but non-actual objects have no existence at all, but they have some kind of being, i.e. logical being and accordingly, can be the denotata of descriptive phrases. In this regard, it can be said that the so-called existence as propounded by actual objects is supposed to be only one of several modes of being. Thus, Meinong finds it possible to assign referential function to all descriptive phrases. He holds that if all descriptive phrases do not have the reality of existing things, they must have a kind of being. Consequently, he admits all sorts of objects possessing various types and degrees of reality.

Frege's solution is similar to Meinong as he too postulates referents for descriptive phrases in cases where we would ordinarily deny it. His intention is to remedy a formal

defect he finds in natural languages. He holds that in some cases an expression of the form 'the-so-and-so' designates an object whereas in some other cases it does not. For example, the expression' the present king of France' stands for non-existing entity and can be said to designate the null-class. Definite descriptions that attempt to designate uniquely one of several members of a class, e.g. 'The inhabitant of London' can be said to designate the class itself.

Russell's response towards Meinong:

Let us explain in what sense Russell repudiates and criticizes both Meinong and Frege. According to Russell, Meinong's theory involves infringement of the law of contradiction for it involves the contention that, for example, 'the round square is round and also not round'.[82] How exactly, is Meinong's theory committed to this? Meinongian is supposed to argue that every instance of "the FG is F" and "the FG is G' is true. Then granted the truth of ' whatever is square is not round', Meinong will have to conclude that ' the round square is round' and ' the round square is not round' are both true, and so, therefore, is their conjunction. Russell seems to claim that on the Meinongian assumption that there is exactly one round square (in the world of subsistence), this conjunction is equivalent to 'the round square is round and it is not the case that the round square is round', which is satisfyingly contradictory.

However, the only escape for the Meinongian is to deny the principles of inference involved, and the only possible general solution seems to be to say that if a description holds of a subsistent non-existent entity a sentence containing it is neither true nor false, unless the predicate of the sentence happens to be 'subsists' or ' does not subsist'. In this way, the Meinongian could deny that there is any contradiction, which he holds to be true. However, the alternative is very unpalatable. In fact the world of subsistence is a shadowy indeed if nothing true or false can be said of its contents, save that they subsist. So even if it is not exactly right to say that Meinong's theory involves contradiction, Russell is nonetheless right to reject it.

What is said above is that the difficulty of Meinong's interpretation is that by postulating objects corresponding to descriptions that do not designate any existing thing, Meinong,

[82] Russell, Bertrand: "On Denoting", p. 45.

Russell opines, violates the principle of contradiction.[83] Russell goes on to say that if we assume that existent of some 'object', viz. 'the golden mountain' or 'the round square', we seem to contradict ourselves if we assert that the entity in question does not exist. He says, "For if there were such an object, it would exist; we cannot first assume that there is certain object, and then proceed to deny that there is such an object."[84] Meinong's proponent, however, would like to say that Meinong does not violate the principle of contradiction. If the kind of being peculiar in the sense that it is fictional, then it would be possible to assert consistently both that this object is in some sense and that it does not exist. However, Russell in his paper 'On Denoting' rejects Meinong's postulation of various kinds of unreal objects almost without explanation, saying that this course "is to be avoided as much as possible".[85] Russell says, "The question of 'unreality', which confronts us at this point, is very important one. Misled by grammar the great majority of those logicians who have dealt with this question have dealt with it on mistaken lines. They have regarded grammatical form as a supper guide in analysis, then, in fact, it is. And they have not known what differences in grammatical form are important....., it is argued, e.g. by Meinong, that we can speak about 'the golden mountain', 'the round square', and so on, we can make true propositions of which these are the subjects; hence they must have some kind of logical being, since otherwise the propositions in which they occur would be meaningless. In such theories it seems to me that there is a failure of that feeling for reality, which ought to be preserved even in the most abstract studies. Logic, I should maintain, must no more admit a unicorn than Zoology can; for logic is concerned with the real world just as truly as Zoology, though with its more abstract and general features."[86]

The above passage illuminates two important points, which go against Meinong. These are: (i) Meinong establishes or tries to establish his theory without reason as it has no ground or proof to defend it and hence it is gratuitous, and (ii) it ultimately hurts our feeling for realty. Russell inclines to say that Meinong theory is unreasonable as it is

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[83] Russell, Bertrand: Logic and Knowledge, Essays 1901-1950, edited by R.C. Marsh, London; George Allen & Unwin, Ltd., 1956, p.4.

[84] Russell, Bertrand: Principia Mathematica, vol.i, with A.N. Whitehead, Cambridge, The University Press, 1935, p.66.

[85] Russell, Bertrand: "On Denoting", op. cit. p.46.

[86] Russell, Bertrand: Introduction to Mathematical Philosophy, London, George Allen & Unwin, Ltd. 1919, pp. 166-67.

based on the assumption that the grammatical forms of propositions are a reliable guide of their true logical forms. Meinong takes, Russell conceives, the grammatical similarity between propositions containing names and those containing descriptive phrases as a sign of their logical similarity. As a matter of fact, Meinong assumes, says Russell that since descriptive phrases may function as grammatical subjects of propositions, they are, like proper names, the logical subjects of these propositions. Consequently, Meinong concludes that these propositions are about objects designated by the descriptions. It follows, then, that if the propositions are meaningful there must be some entity corresponding to these descriptions. However, Russell conceives that the big mistake committed by Meinong is that Meinong is completely duped by grammar. For Russell the grammatical forms of propositions containing descriptive phrases are radically different from their logical forms. Consequently, it is not justifiable to think that there must be some entity corresponding to each description.

Considering the second point, Russell says that Meinong's position is not acceptable as it hurts our 'feeling for reality'. Russell goes on to say that in our approach to questions of logical analysis, we must not simply ignore the logical and ontological framework of ordinary language. Russell reiterates that we have a responsibility to this framework and our analysis must not to violate it. Within the ontological framework of ordinary language it is inconsistent, Russell feels, to attribute a kind of being to non-existent entities. Hence we cannot admit such entities simply in order to make sense of our presuppositions as to how language functions. According to Russell any theory or assumption, which incorporates postulation of this type under consideration, is to be held suspect even if it is inadequate on other grounds. Meinong's theory is mistaken as it totally ignores the ontological framework of ordinary language.

Russell's view against Frege:

Russell's theory of descriptions also goes against the standpoint of Frege. Russell criticizes Frege on the ground that the method adopted by Frege is "plainly artificial and does not give an exact analysis of the matter."[87] In 'On Denoting' there is an obscure passage in which Russell criticizes the view, which he attributes to Frege that one should distinguish between the meaning and the denotation of denoting phrases. In ' On Sense

[87] Russell, Bertrand: Logic and Knowledge, op. cit. p. 47.

and Reference' Frege distinguishes two components in meaning which he calls ' Sinn' and ' Bedeutung' usually translated as 'sense' and ' reference'. Russell, however, interprets these terms as 'meaning' and 'denotation' respectively. According to Frege meaning (sense) and denotation (reference) are properties of expressions. For him every meaningful sentence, general term, and singular term possess meaning, and some in addition possess denotation. More specifically, it can be said that every linguistic term possesses meaning, but may not have denotation or reference. For example, 'The present king of France' as a singular term possesses sense or meaning, but it lacks denotation. The meaning of a sentence, Frege conceives, is determined by the meaning of its meaningful parts, but the denotation of a sentence, which Frege identifies with its truth-value, is determined by the denotation of its meaningful parts. Accordingly, if a meaningful part of a sentence lacks denotation, so does the sentence. In such a case the sentence would be truth- valueless. This view of Frege stands against Russell's position as unlike Frege, Russell holds that a sentence containing descriptions does not lack denotation, because any description must be interpreted in terms of truth and falsity.

According to Russell in order to speak of the meaning of an expression, we have to speak about the expression and not about what, if anything, the expression denotes. Hence a phrase, which denotes the meaning of an expression, will normally contain a part, which denotes that expression. For example, the meaning of the first line of Gray's Elegy is the meaning of 'The curfew tolls the knell of porting day.' It is not the meaning of 'The first line of Gray's Elegy.'

We think that the whole debate in between Russell and Frege is based on an obvious mistake. In fact two possibilities are suggested by Russell's claim that one of the difficulties with Frege's theory is 'that meaning cannot be got at except by means of denoting phrase'. This could be taken to be established by the remark that if it is assumed that meaning and denotation are distinct, the theory is incoherent for every meaning is a denotation. This objection, we think, is raised out of confusion. We think that Frege held that in any use of an expression, its meaning and its denotation are distinct, but he did not hold that no meaning could be a denotation. Rather Frege conceives that in special circumstances, i.e. in intensional contexts, an expression denotes that entity which, in ordinary circumstances, is its meaning. In this regard, it may be assumed that Russell

establishes nothing that contradicts Frege's position in true sense. Perhaps Russell either would miss the point of Frege's proposal or does not give much importance to his proposal that he (Frege) intends to provide a purely conventional referent to those cases in which the uniqueness condition is not satisfied. We think that the very intention of Frege in doing so is to correct what he has taken to be the formal defect of ordinary language. On this line of thinking his proposal is quite adequate in interpreting all descriptive phrases as names. Thus, it can be said that Frege's attempt of considering descriptive phrases as names is an important step in the construction of a language system having more logical elegance than ordinary language.

Another objection raised against Frege also seems to be inconclusive. It is claimed that the view that meaning can only be 'got at' through denoting phrases involves Frege's theory in an infinite regress. Suppose we are trying to analyze a sentence like 'Scott is the author of Waverly'. Then since the meaning of 'the author of Waverly' is relevant to this proposition, we must hold that it is the meaning of the phrase, which does the denoting. Let us call the meaning of the phrase under consideration M. Then, the analysis is 'Scott is the denotation of M'. But here we are explaining our proposition by another of the same form, and thus we have made no progress towards a real explanation. We think this view is based on confusion. Frege in fact does not think that meaning of an expression denotes, rather he holds that an expression denotes. This objection again seems to be inconclusive. It is further held that that the meaning must denote the denotation is also made on the grounds that 'the relation of meaning and denotation' is not merely linguistics through the phrase, there must be a logical relation involved. Frege's view was that the meaning of an expression, together with the way the world is, fixes its denotation; but that the denotation of an expression, together with the way the world is, does not fix the expression's meaning. It is not clear what Russell means by saying that this is a 'merely linguistic' relation between meaning and denotation. Perhaps Russell thinks that the only way in which the meaning of an expression could be relevant to the identity of the proposition expressed by a sentence containing it is by the meaning being denoted. In this sense Frege's theory will not work. Russell repudiates Frege's view, as he does not regard this as a genuine solution to the problem. For it does not provide an analysis of the way descriptions actually function in language. According to Russell,

Frege's solution is completely based on the presupposition that all descriptive phrases function in a certain way and then employs stipulation to take care of different cases.

The solution given by Russell in fact does not stand with the solution given by Frege as well as Meinong. Unlike Frege and Meinong, Russell seems to have conceived that descriptions do not function logically as names. Accordingly, regardless of whether there is or is not some entity corresponding to a particular descriptive phrase simply does not arise as that phrase does not name the entity. This commitment of Russell goes against both Frege and Meinong. Meinong holds, as we have already noticed, that all descriptive phrases have some sort of logical being and Frege holds that in some cases the expression of the form 'the-so-and-so' designates an object. Russell's analysis of descriptions has two steps. First, he presents arguments based on examination of the different ways names and descriptions actually function to show the logical difference between them. Secondly, he then goes on to show how descriptions propositions can be constructed so that their logical form is made evident.

Descriptions are not names:

We have noticed that Russell deviates both from Meinong and Frege simply on the ground that unlike Meinong and Frege, Russell seems to conceive that names cannot be equated with descriptions. Russell defends his own view with the help of the following observations:

(a) If names and descriptions are not different, then by substituting one for other in a proposition, we have the same proposition. That means to say that if one is substituted for other in a proposition, we get a different proposition, even though the name and the description apply to the same object. The proposition 'Scott is the author of Waverley' gives us new information. It expresses a contingent fact of literary history, for someone else might have written Waverley. Or there might not have been a novel called Waverley at all. In the proposition 'Scott is the author of Waverley', the word 'Scott' stands for a name and the phrase 'the author of Waverley' stands for a description. Now if it is assumed that a description functions as a name, then quite obviously the description under consideration can be replaced by some name either 'Scott', or some other. Now if it were replaced by 'Scott', the proposition 'Scott is the author of Waverley' would become the trivial identity 'Scott is Scott'. If it were replaced by other name, viz. James

Joyce, we thereby have a false proposition like 'Scott is James Joyce'. But the original proposition, however, is neither trivial, nor false, but genuinely informative.[88]

Let us suppose someone claims that 'Scott is Scott' is the same form of proposition as 'Scott is Sir Walter'. Russell replies to this quip by saying that the proposition 'Scott is Sir Walter' is not the same as 'Scott is Scott', as it asserts that the person named 'Scott' is the person named 'Sir Walter'. Here the apparent name' Sir Walter' functions as a disguised description. In the same sense Russell considers 'Homer' not as a name designating some individual, but he conceives it as a disguised description. In the case of disguised description if an individual did exist, we have no record of it.

(b) If 'the author of Waverley' were a name, it would apply to 'Scott' merely by virtue of the fact that he was called 'the author of Waverley'. This point is easily seen if we contrast this proposition with one in which we assert a relationship between two names, e.g. 'Scott was Sir Walter'.

(c) A name is a simple symbol, whereas a description, since it contains parts that are themselves symbols, complex. It follows from this that the meaning of a description is determinate as if the meaning of its parts are given; it's meaning is given. On the contrary, the meaning of a name is indeterminate as it means only what it is arbitrarily designated as a name.

(d) If we understand the English language, we would equally understand the phrase 'the author of Waverley', even though we had never heard it before, but we would not understand the meaning of 'Scott' if we had heard it before because to know the meaning of a name is to know whom it is applied to. 'Scott' is here being used as an example of a logically proper name, despite the fact that it must be held not to be a name, but merely to be an ordinary proper name; i.e. an abbreviated description. So, presumably, the intended generalization is to the conclusion that names are simple and descriptions are not, so descriptions are not names. Only simple expressions count as names; on the contrary, only complex expressions count as descriptions. We think that simple-complex distinction between names and descriptions is applicable not at the surface level, but in true logical analysis, this distinction cannot persist. In fact Russell cannot really have the idea that the simple-complex distinction should exactly match the naming function or

[88] Russell, Bertrand: Principia Mathematica, op. cit. p.67.

describing function. Russell thought elsewhere that some simple expressions and ordinary proper names function as descriptions, but not as names. Thus, it can be said that Russell should not argue from being simple to functioning as a name. However, we think that Russell rightly conceives that demonstrative pronouns like 'this', function as names. But why he does not allow complex demonstrative phrases like 'that man' function as names is not made clear. Peacock inclines to say that some descriptions function, on occasion, as names.

(e) An identity sentence containing names is trivial if it is true; whereas an identity sentence containing description can be non-trivially true. Thus, no description means the same as any name, and to treat a description as a name would be incorrect.

(f) There are no empty names, but there are empty descriptions. That means to say that no empty names are names. Why is this so? This is mainly because of the fact that the semantic function of a name requires it to have a bearer, but the semantic function of a description leaves open whether or not it has a denotation. In fact, it is true to say that one can understand a description without knowing what its denotation is or even whether it has one; but one cannot understand a name without knowing what its bearer is. Going forward it can be said that a sentence containing an empty description can be used to say something, e.g. 'the king of France is bald' is a case in point; but a sentence containing such an expression cannot say anything, if there is nothing the expression names. Accordingly, if someone utters a description sentence and you know the context of the utterance, you equally know what the speaker said irrespective of knowing. What the denotation of the description is? On the contrary, if someone utters a sentence containing a name, and you know the context of utterance, you do not know enough what he said unless you know what the bearer of the name is.

What has been said above is that there can be no meaningful names without bearers; whether there can be meaningful descriptions without denotations. This seems to suggest that only denotationless descriptions cannot be treated as names. Accordingly, if the blank in '.... exists' or '...does not exist' is filled by a name, the result is non-sense. However, this would not be the case in descriptions. So descriptions are not names. Moreover, Russell in 'On Denoting' maintains that names are scope sensitive; whereas descriptions are not scope sensitive.

Solutions of logical puzzles:

By defending the view that names are not descriptions, Russell not only repudiates Meinong and Frege, he equally enables to solve three genuine logical puzzles of which one is related to the problem of identity; the second is related to the law of excluded middle and the third one is associated with existential sentences. Let us explain the solution of these puzzles, after Russell, in turn.

Puzzle relating to the law of Identity:

This puzzle has to do with the question of how to interpret a definite description used in an identity statement. The problem is to effect reconciliation between the 'law of identity' and the fact that though 'Scott was the author of Waverley', George IV wished to know whether Scott was the author of Waverley; but did not wish to know if Scott was Scott. Thus, the law of identity, Russell conceives, states: " If a is identical with b, whatever is true of the one is true of the other, and either may be substituted for the other in any proposition without altering the truth or falsehood of that proposition."[89]

Russell's theory of descriptions gives rise to a solution of the puzzle stated above. According to this theory 'Scott is the author of Waverley' is not really an identity statement, but has the form "'Scott wrote Waverley', and it is always true of y if y wrote Waverley, y is identical with Scott". Accordingly, 'Scott is the author of Waverley' does not supply us with a suitable premise for an application of the 'law of identity'. Here two points need to be addressed. The first is that there is no such law as the 'law of identity' and hence the question of involving puzzle simply does not arise. The second is that if there were a puzzle, and then Russell's solution would be inadequate. Both points have taken into account by considering that names cannot everywhere be interchanged **salva veritate** if they name the same. "John believes that Tully was bald', may differ in truth value from 'John believes that Cicero was bald.'

Puzzle relating to the law of excluded middle:

The law of excluded middle states: either' A is B' or 'A is not B' must be true. Hence either 'the present king of France is bald' or 'the present king of France is not bald' must be true. Yet if we enumerated the things that are bald, and then the things that are not

[89] Russell, Bertrand: " On Denoting", op. cit. p. 47.

bald, we should not find the present king of France in either list. Hegelians, who love a synthesis, will probably conclude that he wears a wig.

Russell's gives a solution to this puzzle by saying that 'the present king of France is not bald' as scope ambiguous. On one reading the theory of descriptions yields the analysis. It is not the case that there is one and only one king of France and he is bald and this sentence is true. On the other reading, the theory of descriptions yields the analysis that there is one and only one king of France and he is not bald; and this sentence is false.

Is this solution adequate? To apprehend the adequacy of this solution, one has to know the nature of the problem more precise. In one sense the law under consideration excludes a third truth-value, i.e. there is truth-falsehood, but there is no third value. In this regard, there is no problem as one could hold that both 'the present king of France is bald' and 'the present king of France is not bald' are truth-valueless, and this is precisely Frege's view. According to Russell every sentence or its negation is true. Now this law entails, but is not entailed by, the exclusion of a third truth-value. Russell's law is equivalent to the principle of bivalence, which states that everything to which truth or falsehood is significantly applicable is either true or false. The reason for the equivalence is that any operator which deserves the name 'negation'' will yield a true sentence if and only if it applied to a false one. Accordingly, if a sentence is not true, the law entails that its negation is, which means that the sentence itself is false. Thus, Russell's own apprehension of this principle is based on the principle of bivalence.

Puzzle relating to existential sentences:

The puzzle relating to existential sentences can be put into the question: how can a non-entity be the subject of a proposition? How are we to analyze true sentences like: Golden mountain does not exist? Russell's solution, in effect, treats 'exists' as something other than a predicate or something other than a predicate of individuals. The puzzle relating to negative existential is genuine and Russell, perhaps, adequately solves it.

What description is?

On the basis of the above consideration, Russell claims that names should not be treated as descriptions. Now if descriptions do not function as names, then they do not satisfy the uniqueness condition. Since, then, they do fail to designate entities uniquely. The question then is: if descriptions are not names, then what are the propositions in which

they occur about? In responding to this question, Russell makes the distinction between a fact, which is asserted, and the means through which it has been asserted. Russell says, "When a name is used directly, merely to indicate what we are speaking about, it is not part of the fact asserted ....it is merely part of the symbolism by which we express our thought."[90] A name, says Russell, is a word we use to designate some individual so as to assert a fact about him. But ".... a proposition about 'the person called Scott', (when) the actual name 'Scott' enters into what we are asserting, and not merely into the language used in making the assertion"[91] in another matter. Here the fact asserted involves not the individual designated -the man Scott- but the name used- the name 'Scott'. When we use names as names we designate individuals; but when we are talking about names as such, we are thereby doing something entirely different. Here we refer not to individuals, but to words.

It appears that a proposition containing a name does not have the same meaning as a new proposition in which all else remains the same, but the description of the individual referred to by the name replaces the name. Consequently, although it is trivially true to say that 'x=x' and, if 'Scott' is a name, that 'Scott is Scott' (i.e. Scott=Scott), it is not necessarily true that 'the author of Waverley= the author of Waverley." According to Russell, in order to say that 'the author of Waverley= the author of Waverley', we have to admit beforehand that 'the author of Waverley' describes someone who exists. We may not or even perhaps cannot say that 'the round square is identical with the round square' is true as we know that round square does not exist.

Having said that a definite description implies that the entity describes by it is unique if it exists. According to Russell the proposition 'Scott is the author of Waverley' could not be true unless (i) Waverley had actually been written ;(ii) only one person wrote it; and (iii) that person was Scott. Likewise the truth of the proposition 'The author of Waverley was Scotch' depends upon the following conditions:

(1) There exists at least one person who writes Waverley ('x wrote Waverley' is not always false).

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[90] Russell, Bertrand: Introduction to Mathematical Philosophy, op. cit. p. 175.
[91] Ibid. , p. 175.

(2) At most one person wrote Waverley (If x and y wrote Waverley then 'x is identical with y' is always true).

(3) Whoever wrote Waverley was Scotch (If x wrote Waverley, 'x is Scotch' is always true).

In the above analysis, the proposition 'the author of Waverley was Scotch' implies the conjunction of (1), (2) and (3) and again the conjunction of (1), (2) and (3) implies the proposition 'the author of Waverley'. Therefore, they are logically equivalent.

What is important to be noticed here is that in the reconstruction version of the sentence containing the phrase 'the author of Waverley', the phrase 'the' does not appear. In the reconstruction version, the descriptive phrase 'the' is eliminated. But the point is that if the descriptions were genuine constituents of sentences, it would not be necessary to give them a contextual definition in order to show what they mean. They would have meaning in isolation and would appear as indissoluble elements in any re-statement of any proposition in which they occur. For if the reconstruction of descriptive propositions succeeds in clarifying their logical form, it would follow that those expressions that are genuine constituents will remain in the reconstructed proposition. They are, Russell opines, the linguistic correlation of constituents of facts and without them it would be impossible to say everything asserted by the original proposition. However, in the proposition considered above the descriptive phrase is eliminated and as a matter of fact it is called **incomplete symbols.** A symbol is incomplete in the sense that it lacks referential function. According to Russell, "Whenever the grammatical subject of a proposition can be supposed not to exist without rendering the proposition meaningless, it is plain that the grammatical subject is not a proper name, i.e. not a name directly representing some object."[92] Since descriptions as incomplete symbols do not function referentially, description propositions are not 'about' their referents. Consequently, they do not presuppose for their meaningfulness that such objects exist.

It appears from the above consideration that Russell's theory of descriptions bears not only logical but also ontological significance. In exhibiting description as incomplete symbols, Russell has shown that we need not assume that they designate objects, which must be included in our ontological inventory of the world. But does it make sense to say

[92] Russell, Bertrand: Principia Mathematica, op. cit., p.66.

that there is no object corresponding to any descriptive phrase? Russell, however, does not agree with this proposal. What he says is that the value of the theory of descriptions is that it vitiates the claim that we must include in our ontological inventory in order to account for the meaningfulness of description sentences. Russell's theory makes it evident that this is an unnecessary assumption that it results from logical form with grammatical form. His theory of descriptions is an analysis of description sentences that aims at explicating their true meaning as well as true logical forms.

But in what sense Russell's theory provides an analysis of the form of description-sentence? It is not altogether clear from his own statements. He explains the proposition 'The author of Waverley was Scotch' into three sentences and then goes on to say that "... the three together may be taken as defining what is meant by the proposition 'the author of Waverley was Scotch'. But some philosophers have thought that the phrase 'may be taken as' within the quotation is disturbing. Professor Moore calls attention to the vagueness of this phrase. It is not clear whether Russell is making a proposal that the original sentence is to be interpreted as meaning what the three sentences, taken together, mean. Again it is not clear whether Russell has assumed that the three sentences taken together assert the meaning the original proposition has in ordinary language. In this regard, we can mention two proposals given by two prominent analytic philosophers, namely, Carnap and Max Black. According to Carnap, Russell's theory of descriptions is nothing but a proposal for interpretation as well as deductive rules concerning descriptions in symbolic system. He does not regard Russell's theory as an analysis of the meaning of the phrase of the form 'the-so-and-so' in English. Accordingly, for determining the adequacy of his theory, says, Carnap, we must not ask whether it is the correct analysis. Rather we should inquire into its 'comparative analysis' as a method for translating description sentences. This can be accomplished by comparing it with other methods. Carnap further adds that the relationship between Russell's theory of descriptions and ordinary language would be extremely tenuous. It would be, in effect, stipulation that description sentences are to be translated in a certain way. According to Carnap, Russell's theory does not provide an analysis of ordinary language. It simply uses ordinary language as a point of departure in the construction of a language system, which is intended to be technically superior, in certain respects, to ordinary language.

Carnap further contends that Russell's theory of descriptions is equal in importance with Frege's theory. Both systems, for instance, would have greater formal simplicity than does ordinary language, in which some phrases of the form' the-so-and-so' function as names whereas others do not. But the all-important distinction between them is that in Frege's system all descriptions would be interpreted as names; whereas in Russell's system none would be interpreted as names.

Prof. Black,[93] however, does not agree with Carnap since unlike Carnap, Black regards Russell's theory as an attempt to provide an account of the way descriptive phrases actually function in ordinary language. Professor Black compares the kind of analysis of description sentences affected through the theory of descriptions to a translation from one natural language to another. He says, ".... there is more or less explicit and direct appeal to congruence of behaviour and linguistic utterance in cognate situations."[94] To test the adequacy of the analysis it is importance to note whether the analysans can be substituted for the analysandum without disturbing the normal linguistic behaviour of someone familiar with the language. So according to Max Black, Russell's theory of descriptions is simply neutral method for replacing one English sentence with another English sentence having a different grammatical form, but having the same meaning. Of course, Prof. Black admits that a question may arise whether the proposed translation is correct or not.

We think neither Carnap nor Prof. Black correctly apprehends Russell's own position. Black's interpretation makes the correctness of the analysis made in accordance with the theory of descriptions defend too much on what he calls 'sociological' criteria.[95] Russell, however, does not regard such criteria as reliable for determining identity of meaning of two linguistic expressions. Rather he is convinced that ordinary language is vague and ambiguous and the so-called users of ordinary language are very much careless and confused in their thought and speech. In replying to the criticism of Strawson, Russell clearly explains his motive for formulating this theory. He says, "I was concerned to find a more accurate thought to replace the somewhat confused thoughts which most people at

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[93] Black, Max. : "Russell's Philosophy of Language", included in the Philosophy of Bertrand Russell, edited by P.A. Schilpp, Evanston and Chicago, North-Western University Press, 1944, pp.227-255.
[94] Ibid. p. 241.
[95] Ibid. p. 243.

most times have in their heads."[96] As the theory of descriptions is intended to correct some of the ambiguity and vagueness of ordinary language usage, it could hardly appeal to ordinary usage to determine its adequacy. It is also correct to say that the theory of descriptions was intended as an analysis of the logical role played by descriptions in ordinary language. Professor K. Gödel has said that Russell does not consider the interpretations of descriptions as a matter of mere linguistic conventions, but rather as a question of right or wrong. It is revealed from his criticisms of Meinong and Frege. He has criticized both Meinong and Frege by saying that they fail to do justice to the way descriptive phrases function in ordinary language. Moreover, the arguments, he presents to show the difference between names and descriptions are based on a consideration of their different logical roles in ordinary language.

Strawson's observation against Russell's theory of descriptions:

Although Russell's theory of descriptions has immense philosophical significance, still it may be criticized from various aspects. We have already discussed the observations of Black and others in this regard. However, the all-important criticism that has been directed against this theory comes from Strawson. One objection of this sort is put forward by Strawson who argued that Russell's theory is mistaken or misleading about what we ordinarily mean by sentences of the form "The F is G". Such sentences, Strawson holds, do not assert that there is one and only one thing, which is F, rather it **presupposes** that fact. If someone said that "The king of France is wise", then we would not say that he had said something false, nor, of course, we would say that he had said something true. Rather we "would be inclined, with some hesitation, to say, "the question of whether his statement was true or false simply did not arise."[97]

We think Strawson's objection against Russell is based on the misconception of **assertion** and **presupposition.** Russell's interpretation of descriptions is based on the notation of modern logic linked with the logical clarification of assertion. How are we to think of the relation between ordinary language and the notation of modern logic? We think both Strawson and Russell belong to opposite camps. Russell is a leading proponent of reconstructionism and in this regard he may be called an ideal language philosopher'

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[96] Russell, Bertrand. : My Philosophical Development, London: George Allen & Unwin Ltd. , 1959, p. 243.
[97] Strawson. P. F. : Logico Linguistic Papers, p. 12.

whereas Strawson is a leading proponent of ordinary language philosopher. Russell's own logical apprehension is based on the principle of assertion; whereas Strawson's own outlook of ordinary language is based on the principle of presupposition. Since Strawson's own view is linked with presupposition, he tries to replace presupposition with assertion. The advantage of Russell's theory is that it actually shows how we can incorporate the idioms of definite descriptions into logic, with corresponding gains in clarity. In modern logic, i.e. the logic as proposed by both Russell and Frege, there is hardly any room of presupposition. However, Strawson criticizes Russell simply from the viewpoint of ordinary language where the issue of presupposition is more relevant than assertion. Thus the tussle between Russell and Strawson is actually the tussle hinges on the admission of presupposition instead of assertion and vive-versa.

Strawson, however, would like to say that there underlies some system of logic, which takes some account of the idea of presupposition. This in fact enables us to have the advantage of representing our ordinary discourse in logical terms with giving up on the idea of presupposition. However, doubt may be raised against this proposal and it is not sure at all whether any logical system will work on the line as proposed by Strawson. However, on the Russellian side or even in the Quine's side, it may be possible to undermine the idea that ordinary discourse is really committed to the notion of presupposition. According to Strawson we do not actually say of a definite description that can be empty. Nor can we say that such sentences containing definite descriptions are false. The reason we do not call them false is not that they are not false or even that we do not hold them to be false. Rather what we want to say is that calling them as false is highly liable to be misleading, by suggesting that they are false in the most straightforward way. Referring Grice, Strawson claims that our reluctance to say of a sentence such as " The king of France is bald" that it is false, and nothing else arise from the fact that we could reasonably expect our audience to infer, from our saying that, that there is a king of France. So our reluctance to say that the sentence is false, Strawson opines, may be compatible with the sentence's in fact being false.

Strawson further contends that the so-called definite descriptions as advocated by Russell are no longer complete. Strawson gives as an example the sentence, 'The table is covered

with books'.[98] Certainly, there are contexts in which this sentence seems to express something true, yet there are, of course, a large numbers of tables in the world, not only one as Russell's definite descriptions is assigned. It means that much of what we say actually defends on in context in which we say it; but not only when we are using definite descriptions. In the case of the table, if the remark is a sensible one, the most likely we are in a room containing only one table. However, still there are cases where the room contains two tables, equally noticeable, but for the fact that one of them is covered with books. In such a case 'the table, is perhaps being used to mean 'that table'. Strawson claims that this usage can be dismissed as incorrect, if we accept it as correct, and then we have here a limited class of exceptions to the theory of descriptions.

Donnellan's observation on Russell's theory of descriptions:

Keith Donnellan criticizes Russell's theory of descriptions from different corner. Donnellan inclines to say that suppose we are at a party in which a man is drinking a clear liquid from a martini glass. Further suppose that there are open battles of gin and vermouth on the table beside him, and that everyone else in the room is, quite evidently, drinking real wine. Further knowing that the person under consideration is a famous philosopher, we can say that 'the man drinking the martini is a famous philosopher'. In fact, the glass contains water rather than wine. On the basis of this example, Donnellan senses two kinds of uses of definite descriptions, namely, the attributive use and the referential use. For Donnellan, the example as cited above is associated with the referential use- a use in which a definite description is used simply to refer to some person without regard for whether the descriptive predicate in fact holds uniquely or holds at al, of the object being referred to. Here we use the phrase to refer to the inebriated looking man with the martini glass and thereby go on to say something about him. Since he in fact a famous philosopher, the so-called utterance regarding him is true. However, as far as the interpretation of the theory of definite descriptions is concerned the utterance is false as there is no man within the referent context drinking a martini. Donnellan, however, seems to have conceived that the utterance is clearly a true one in the context of referential use.

Kripke's observation on Russell's theory of descriptions:

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[98] Ibid., p. 14.

Kripke disagrees with Russell on the idea that ordinary proper names are disguised descriptions. For him to conceive proper names as disguised descriptions would create genuine problem in counterfactual or modal systems. According to Kripke, proper names are 'rigid designators' in the sense that they designate the same thing in all possible worlds or possible circumstances, whereas a definite description is not, for it may designate various objects in various counter-factual situations.[99] What Kripke has said would be clear with the help of the following observation:

(i) Alexander Fleming might have died in childhood.

(ii) The inventor of Penicillin might have died in childhood.

Since (i) is associated with proper name, it seems to be straightly true; but (ii) belongs to description and therefore is less clear unlike (i). If it is said that Penicillin might have been discovered by a child genius who then died young, we may be inclined to dismiss it a false. However, this is not the only way in which to construe (ii). Perhaps because we tend to interpret what we are told charitably, we would be more likely to construe it as saying that the person who in fact discovered Penicillin might have died in childhood. Kripke therefore claims that such ambiguity can be captured by Russell's analysis.

Philosophical significance of Russell's theory:

It was Russell who alone convinced that definite descriptions are incomplete symbols in the sense that they have no meaning in isolation, but they can only be defined in certain contexts. The question is: why does Russell hold that definite description has no meaning in isolation? Since Russell's fundamental idea of meaning is referential, accordingly, a symbol has meaning if it stands for something and the thing for which it stands is its meaning. There is a certain sense in which a definite description may stand for something. For example, "The president of the USA in 2005" stands for a certain man, namely, George W. Bush. However, according to the theory of descriptions, a definite description does not function referentially. According to Russell a proposition expressed by a sentence using a definite description, that is to say, there is no entity for which the definite description stands. In fact Russell would like to say that "The president of the USA in 2005" does not contain George W. Bush, nor does it contain a denoting concept which denotes him. There is no entity in that proposition for which the definite

[99] Kripke, S.A. : Naming and Necessity, Cambridge, M.A: Harvard University Press, 1980.

description stands. That is why Russell has inclined to say that definite descriptions have no meaning in isolation. However, that does not make sense to say that definite descriptions are meaningless. Russell seems to have conceived that although a definite description has no meaning in isolation; sentences in which definite descriptions occur often succeed in expressing propositions the sentences, as wholes are meaningful. Definite descriptions, Russell opines, like other incomplete symbols are defined in certain contexts. The all important insight underlying in this theory is that an incomplete symbol makes a systematic contribution to a sentence in which it occurs; only it does not do so by indicating an entity which is contained in the proposition which the sentence expresses.

We think that the so-called idea of incomplete symbols makes an immense impact on Russell philosophy. Before the appearance of "On Denoting", Russell has usually approached the unit of analysis as sub- sentential. During this period, a predicate or a referential term is analyzed to see exactly what entity it stands for. One can conceive a number word by seeing that it should be taken as standing for a certain class. Alternatively, it can be said that analysis will leave unaltered the overall form of the sentence being analyzed. The constituents of the proposition may not be those suggested by the parts of the sentence, but each part of the sentence will generally stand for some constituents in the proposition, and the constituents will generally be analyzed in the sort of way suggested by the arrangements of the part of the sentence. Thus, Russell says, "The correctness of our philosophical analysis of a proposition may ...be usually checked by the exercise of assigning the meaning of each word in the sentence expressing the proposition. On the whole, grammar seems to me to bring us nearer to a correct logic than the current opinions of philosophers."[100]

Importantly, Russell, however, deviates from his philosophical position after the publication of his paper "On Denoting". He then comes to assume that analysis of a sentence will generally reveal that it expresses a proposition of a quite different logical form. Here the unit of analysis becomes the sentence and Russell's attention is focused on the logical form of proposition. The analysis of sentences containing definite descriptions is a paradigm here: the sentence has subject-predicate form, but analysis in

[100] Russell, Bertrand. : Principia Mathematica, op. cit. p. 42, section 46.

accordance with the theory of description reveals that it actually expresses a proposition which is an existential quantification.

Accordingly, Russell senses that our ordinary language is generally misleading. In principles, he seems to conceive that our sentences generally have forms quite different from the real forms of the proposition, which they express. Thus, the basic or chief task of philosophy, Russell opines, is to dig up the misleading structure of language and thereby comes to know the true structure. In fact, this was the general slogan within the domain of twenty-century analytic philosophy, the idea that language is systematically misleading in philosophically significant ways. Ordinary language is not competent enough as its surface structure does not correspond to its deep structure or more specifically, its grammatical form does not match, very often, to its misleading logical form. Avoiding the loopholes of ordinary language, Russell likes many others, pleas for symbolism. Russell says, "There is a great deal of importance to philosophy in the theory of symbolism, a good deal more than one at one time I thought. I think the importance is almost negative, i.e. the importance lies in the fact that unless you are fairly self conscious about symbols ....you will find yourself attributing to the thing properties which only belong to the symbol."[101]

The other philosophical significance of considering definite descriptions as incomplete symbols is that it goes along with notion of contextual definition. In order to define a symbol, it is sufficient to define the contribution that it makes to all the sentences in which it may occur. This was the idea that Russell exploited with his definition of classes in terms of propositional functions. According to this proposition, a subject- predicate sentence whose subject is a class symbol is to be understood as an existential quantification, asserting the existence of a propositional function satisfying certain conditions.

It is important to observe here that Russell's idea of incomplete symbols is clearly new with "On Denoting". Denoting concepts, Russell conceives, do stand for constituents of propositions and hence they are not incomplete symbols. On the contrary, when we are associated with the theory of descriptions, the contrast is less clear-cut. We think that Russell's view having to do with names, acquaintance, and the elimination of non-

[101] Russell, Bertrand. : Philosophy of Logical Atomism, papers 8, p. 166.

existent concreta have been developed in the context of the theory of denoting concepts. However, the theory of descriptions which provide the context within, which the views were developed in detail. Unlike the denoting concepts, the theory of descriptions was right in line with his basic views and it is not surprising that Russell was ready to exploit it to the full.

Moreover, Russell's theory of denoting concepts gives the means to avoid accepting that there are negative existentials. Because his theory stands with the idea that whenever we have a proposition containing a non-existent concretum, what we really have a proposition containing a denoting concept, which lacks a denotation. However, as soon as his theory of descriptions is in place, by contrast, he has no hesitation in exploiting that theory to rid his ontology of non-existence concreta. What appears to be a definite description of such an object is analyzed to show that the proposition does not contain the alleged object, but only properties, which are claimed to be satisfied uniquely.

Russell inclines to say that understanding a name, which is not genuine proper name, but disguised definite descriptions, does not involve simply fastening the name to an object with which one is acquainted. Rather it involves a property, which is uniquely satisfied. Russell seems to have conceived that the analysis of a proposition should be available to one who understands it; but he does not hold that merely by analyzing propositions one can tell whether some proposed object in fact exists. The principle is: if there is a proposition apparently about a certain concrete object, but the existent of that object is at all open to doubt, then the proposition is to be analyzed in accordance with the theory of descriptions. Accordingly, a name in a sentence does not indicate the presence of the name object in the corresponding proposition unless we have a guarantee that the objects really exist. The question then is: what could give us such a guarantee? Our being acquainted, Russell opines, with an object guarantees that it is real. Russell maintains that in a proposition all the constituents must be entities with which we are acquainted. Even at the end of "On Denoting", Russell holds that this principle at times known as the **Principles of Acquaintance**- is the result of the theory of descriptions.

Model II:

The Analysis of Class Symbols:

Reconstruction of class sentences is another idea of Russell's philosophical analysis of language. The significant development in Russell's analysis of class symbols was his 'no classes' theory. Russell in his Principia Mathematica has enunciated this theory where symbols for classes are considered as incomplete symbols. It was this theory, which actually leads Russell to propose a reconstruction of class sentences. However, before delving into this theory, let us first consider briefly the general features of the earlier view of classes to which he subscribed in **Principia Mathematica**. In fact Russell's own apprehension of classes projects some of the fundamental problems that the reconstruction of class sentences permitted him to resolve, and in so doing illumines the question of why, from his point of view, this reconstruction is desirable. What does Russell mean by classes? is a question that needs to be addressed first. In fact Russell's entire analysis of classes in **Principia Mathematica** is based on the assumption that classes are entities of some sort. The philosophical significance of considering classes is 'to eradicate the kind of object that is to be called a class' Russell's entire idea of classes includes two main points related to these assumption (i) the relationship between a class as 'one' and a class as 'many'; (ii) the contradictions generated by the circumstance that as entities, classes can be said to be (and also not to be) members of themselves.

We think that the distinction Russell makes between a class as 'one' and as 'many' corresponds to the distinction between an intensional and an extensional interpretation of classes. According to the former interpretation, a class is defined in terms of the class concept or property that characterizes each member said to belong the class. Usually, we can say that Socrates, Plato, Aristotle are all humans and that they belong to the class men. According to Russell, when we conceive a class in such a way, we generally assume or presuppose that all the members belonging to a particular class possess or have a common property and hence are a unified whole, a ' one'. This is supposed to be the essential feature of a class as understood by Russell. On the contrary, assuming as extensional interpretation, a class is defined by an assumption of its terms, i.e. by listing the individual members of the class. According to this definition, Russell seems to have conceived a class 'is more naturally called a collection.'[102] A collection, says Russell, 'is

[102] Russell, Bertrand. : Principia Mathematica, Volume I, with A.N. Whitehead, Cambridge; The University Press,, 1935, p. 65.

defined by the actual mention of the terms, and the terms are connected by **and**."[103] Identifying class in terms of collection is a numerical concept; whereas identifying class in terms of property is not numerical concept, but something based on essential or common properties. 'Collection' suggests more adequate than does the word 'class' the aggregate formed by simply listing objects and connecting them with 'and'. Although, individuals like Socrates, Plato, Aristotle etc. are designated by the phrase **all men,** but from this it does not follow that they can be characterized as "Socrates, Plato and Aristotle and ...." as a class. The concept of class as understood in terms of collection is somehow or other distributive, whereas a class is understood in terms of essential property is apprehended collectively. To say that Socrates, Plato and Aristotle constitute a collection is to lay emphasis on the pluralistic aspect of the aggregate they comprise and interpret this aggregate as essentially a 'many'.

From the above consideration, it seems clear that in one sense the concept of class is apprehended as one and in another sense, it would be apprehended as many. When a class is understood in terms of property, i.e. in terms of essential property, then it is conceived as one, but when the concept of a class is understood in terms of collection or aggregate, then it would appear as many. Does it make sense to say that the concept of class as expounded by Russell is ambiguous? How does Russell reconcile these different interpretations of the concept of class? Is the concept of class incompatible? Russell himself explains the dualistic interpretation of class in the following ways. Russell says, "Is a class which has many terms to be regarded as itself one or many? Taking the class as equivalent simply to the numerical conjunction ' A and B and C and etc.', it seems plain that it is many; yet it is quite necessary that we would be able to count classes as one each, and we do habitually speak of a class. Thus, classes would seem to be one in one sense and many in another."[104]

The question is: why this dualistic approach comes into account? We think that this is mainly because of the assumption that classes are entities. In fact if it is assumed as Russell did that classes are entities, and then no real solution to this problem is possible. It is true to say that one can distinguish between expressions that designate classes as

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[103] Ibid. , p. 65.

[104] Russell, Bertrand. : Principles of Mathematics, Cambridge: The University Press, 1903, Second edition, London: George Allen & Unwin, Ltd. 1938, p. 76.

single terms as well as expressions that denote those pluralities. For example, classes of all rational animals denote the human race as one term, whereas 'all men' denotes it as many. Russell, however, seems to conceive that there hinges real difference between the entities theses expressions designate and thereby concludes that "(We must) infer an ultimate distinction between the class as many and a class as one and hold that the many are only many and not also one."[105] However, the real problem underlying in this assumption is that same theory or concept does not have two complementary properties. That means it would rather contradictory to say that a class contains simultaneously one and many. Because one is always contradictory to many, they do not co-exist with each other. Russell says, "If there is such an object as a class, it must be in some sense one object. Yet it is only if classes that **many** can be predicated. Hence if we admit classes as object, we must suppose that the same object can be both one and many, which seems impossible"[106]

Technically it can be said that a class as one may be itself a member of certain classes. This view actually hinges on the assumption that classes are entities. Even in certain cases, it would also be possible to regard a class as one as a member of itself as many.[107] This is legitimately admissible in the case of negative classes. This is justified by saying that the class of things that are not, say, a teaspoon is itself not a teaspoon and so is a member of itself. This actually recalls the view of empty set or class where it has been asserted that empty set is the subset of empty set. That is a null class is always to be the member of itself. Having said this there at least one positive case in which a class may be said to belong to itself. This is again justified by saying that if a class is an entity of some kind, then it can be said to be a member of the class consisting of all the entities in the world.[108]

Returning back to the concept of contradiction, this states about classes that are not member of themselves. Usually, one would not expect a class to be a member of it. For instance, if one takes the class of all the teaspoons in the world, that is not in itself a teaspoon or if anybody takes all the human beings in the world, the whole class of them is

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[105] Ibid. , p. 76.
[106] Russell, Bertrand. : Principia Mathematica, op. cit. , p. 72.
[107] Russell, Bertrand. : Principles of Mathematics, op. , p. 102.
[108] Russell, Bertrand. : Philosophy of Logical Atomism, included in Logic and Knowledge, op. cit. p.261.

not in turn a human being. Accordingly, one cannot expect a whole class of things to be itself a member of that class. However, there are exceptions that cannot be ruled out. If one takes all the things in the world that are not teaspoons and accordingly makes up a class of them, that class obviously will not be teaspoons. This is also true in the case of negative classes (empty class etc.). Even if it is assumed that classes are things in the same sense in which things are things, then the class consisting of all the things in the world is itself a thing in the world, and accordingly, it can be said that the class is a member of itself. This means that the class consisting of all the classes in the world is itself a class, which again leads to the assumption that there is a case of a class, which is a member of itself. However, Russell inclines to say that if there is in any sense in asking whether a class is a member of itself or not, then surely, in the cases of ordinary classes of everyday life, we find that a class is not a member of itself. This, contrarily, leads to say that the class of all those classes is not members of themselves. Thus, the question still remains unclear whether a class is a member of itself or not? Russell therefore inclines to say that the so-called contradiction apparently involving in the concept of class is interesting. It is interesting in the sense that some forms of modifications are valid whereas some are not. Russell says, "Let us first suppose that it (a class) is a member of itself. In that case it is one of those classes that are not member of themselves, i.e. it is not a member of itself. Let us then suppose that it is not a member of itself. In that case it is not one of those classes that are not member of themselves, i.e. it is one of those classes that are members of themselves, and i.e. it is a member of itself. Hence either hypothesis, that it is or that it is not a member of itself, leads to its contradiction. If it is a member of itself, it is not, and if it is not, it is."[109]

On the basis of the above consideration, Russell inclines to say that the question whether a class is a member of itself or not is utter nonsense, because the whole form of words is just a pure noise without significant meaning. That is why Russell at the very outset conceives classes as incomplete symbols in the same sense in which descriptions are. Russell justifies it by saying that classes are incomplete symbols simply for the fact that if you ask yourself whether a class is or is not a member of itself, you will find that the class is not at all mentioned in the proposition by means of which it is expressed and

[109] Ibid., p. 261.

there is nothing about a class in that statement Russell says, " It is absolutely necessary, if a statement about a class is to be significant and not pure non-sense, that it should be capable of being translated into a form in which it does not mention the class at all. This sort of statement, 'such and such a class is not a member of itself', will not be capable of that kind of translation."[110] This is exactly the same situation that actually happens in the case of descriptions. We have noticed that in the case of description, the descriptive phrase' the-so-and-so' is disappeared when the description is logically analyzed. That is why, like description, Russell equally senses a class as an incomplete symbol. Russell says, ' ...the symbol for a class is an incomplete symbol, it does not really stand for part of the propositions in which symbolically it occurs, but it is the right analysis of those propositions that symbol has been broken up and disappeared."[111]

The contradiction involving in class symbols is similar to the contradiction associated with the remark "All Cretans are liars". More specifically, it can be said that if a man makes the statement 'I am lying' is he lying or not? If he is, that is what he said he has doing, so he is speaking the truth and therefore not lying. On the other hand, if he is not lying, then plainly, he is speaking the truth in saying that he is lying and therefore, he is lying since he says truly that that is what he is doing. According to Russell the man who says, 'I am lying' is really asserting 'There is a proposition which I am asserting and which is false.' Owing to overcome the contradiction, Russell would say, one has to take the whole assertion of his as one of the propositions to which his assertion applies.

Russell elsewhere admits a hierarchy of classes. Classes that are composed entirely of particulars would be the first type. Then we will go to the classes whose members are classes of the first type and it will be called the second type. Then again we will go on to the classes of the second type and that would be the third type and so on. According to Russell one type of classes is not to be identical with a class of another type. In this regard, there underlies no contradiction of asserting the fact that a class contains one as well as many entities. When it is said that a class contains one, it would be a different type of class in comparison with a class that contains many entities. When it is said that there are classes, what Russell would like to say about classes? What sort of things

[110] Ibid. , p. 262.
[111] Ibid. , p. 262.

Russell would like to say about classes? In answering to these quips, Russell would like to say that they are the propositional functions that are at times true. For Russell all the things we want to say about classes are the same as the things we want to say about propositional function.

Let us explain, after Russell, the following propositional functions, such as 'x is a man' and 'x is a featherless biped'. They were formally equivalent in the sense that when one is true, so is the other and vice-versa. Russell further contends that some of the things that you can say about propositional function will not necessarily remain true if we substitute another formally equivalent propositional function in its place. Foe example, the propositional function 'x is a man' is one, which has to do with the concept of humanity. But that will not be true of 'x is a featherless biped'. More specifically, to say 'so-and-so asserts that such-and such is a man' the propositional function 'x is a man' comes in there, but 'x is a featherless biped' does not. That means that certain number of things, which you can say about a propositional function, which would be not true if we substitute another formally equivalent propositional function. On the other hand, any statement about a propositional function will remain true or remain false, when we substitute for it another formally equivalent propositional function. **Extensional** statements about functions are those that remain true when you substitute any other formally equivalent function, and these are the uses that may be regarded as being about the class. It will always be equally true or equally false of any two formally equivalent functions, and this derived extensional statement may be regarded as being the corresponding statement about the associated class. So when Russell goes on to say that' the class of men has so-and-so many members', he thereby means to say that' there are so-and –so many members in the world and it will be derived from the statement that 'x is a human'. And in order to get it into the extensional form, one will put it in the way that 'There is a function formally equivalent to 'x is human', which is true for so-and-so, many values of x'. In this regard Russell seems to conceive that' the class of man has so-and-so-many members.' Russell says, "...all the formal properties that you desire of classes...can be obtained without supposing for a moment that there are such things as classes, without supposing.... that a proposition in which symbolically a class occurs, does in fact contain a constituent corresponding to the symbol, and when rightly analyzed

that symbol will disappear, in the same sort of way as descriptions disappear when the propositions are rightly analyzed in which they occur."[112]

In fact Russell has considered and adopted various methods particularly in his **Principles of Mathematics** in order to overcome the contradiction involving in class symbols. Even elsewhere Russell formulates 'no classes' theory to avoid this contradiction. In **Principles of Mathematics**, Russell has prompted to revise his original view that in all cases there is a class as many, there must also be a class as one. In cases where its existence would lead to a contradiction, the class as one is denied. However, the class as many is, Russell says, always of a higher type than it members. This theory of types was developed and refined in subsequent works, but we think, Russell's ultimate solution to the problem involved the more radical suggestion that classes are merely 'logical fictions' and therefore never exist as genuine objects. In fact the 'no classes' theory as developed in **Principia Mathematica** is explicitly related to the theory of descriptions. Russell says, "The symbols for classes, like those of descriptions, are, in our system, incomplete symbols; their use are defined, but they themselves are not assumed to mean anything at all. That is to say , the uses of such symbols are so defined that, when the **definiens** are substituted for the **definiendum** there no longer remains any symbol which could be supposed to represent a class. Thus classes.... are merely symbolic or linguistic conveniences, but genuine objects as their members are if they are individuals."[113]

Going forward, Russell conceives that in the case of description, it would be possible to prove that they are incomplete symbols and Russell has applied a unique technique to do so. However, in the case of classes we do not know of any equally definite proof, though argument of more or less cogency can be elicited from the ancient problem of the one and the many. However, despite the lack of 'proof' it is, Russell claims, useful to interpret class symbols as incomplete symbols and thereby dispense with classes as entities. This is made possible, we have already seen, by defining class symbols in terms of propositional functions. This is justified by saying that since classes can only be defined ' in use', by interpreting propositions ostensibly classes as propositions concerning propositional functions Russell goes on to say that any proposition about a class is to be taken as

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[112] Russell, Bertrand. : Logic and Knowledge, op. cit. p. 266.
[113] Russell, Bertrand. : Principia Mathematica, op. cit. pp. 71-72.

equivalent to a proposition about a function which defines or determines the class. This function, in fact, stands for the common property, possession of which qualities an object to be a member of the class in question. Thus, the property **human** is a function, which is satisfied by Socrates, Plato, Aristotle, etc. In saying that 'Plato is a man', we are not, after Russell, committing ourselves to the existence of a class **men**, rather we simply assert that Plato possesses the property of being human. More specifically, it can be said that the proposition "x is a (member of the class) K" is to be translated as "x is a value that satisfies F", where F is the function that determines K. According to Russell, since statements about classes are equivalent to statements about propositional functions, then to say that two classes are identical is tantamount to saying that functions which determine them are formally equivalent, i.e. they are satisfied by precisely the same set of arguments. Accordingly, Russell claims that classes of rational animal and featherless biped are identical even though their determining functions have a different intension, since anything that is an argument for one is an argument for the other.

On the basis of the above observation, the problem of whether classes are best characterized as 'one' or 'many' is obviated, and the contradiction concerning classes that both are and are not members of themselves is seen to involve a fundamental logical confusion. Classes as such are neither one nor many. Since classes are defined as logical fictions they cannot be described as either a unity or a plurality. Once it is conceived that the talk about class is simply a **facon de parler**, it becomes obvious that the question of characterizing themselves as a proper manner simply does not arise. If symbols for classes are incomplete symbols, then Russell's maintains that the 'whole question whether a class is or is not a member of itself is non-sense...and...it is not even true to say that, because the whole form of words is just a noise without meaning."[114] If a proposition about a class is to be significant, it must be capable of translation into a form in which there is no mention of the class. It must be capable of translation into a proposition about propositional functions and their values. However, when we attempt to translate propositions about classes of themselves in accordance with the procedure we find that we cannot do so. Therefore, they are without significance. Russell says, "...a proposition about a class is always to be reduced to a statement about a function which

[114] Russell, Bertrand. : Philosophy of Logical Atomism included in Logic and Knowledge, op. cit. p. 261.

defines the class, i.e. about a function which is satisfied by the members of the class and by no other arguments....a class...cannot significantly be in the argument to its defining functions, that is to say, if we denote by z (oz) the classes defined by the symbol '$\acute{O}/z(\acute{O}z)/$' must be meaningless. Hence a class neither satisfies, nor does not satisfy its defining function, and therefore.... is neither a member of itself nor not a member of itself."[115]

Russell elsewhere says that there underlies some considerable reason for interpreting class symbols as incomplete symbols. However, in anticipating classes as entities, Russell himself involves into many philosophical difficulties. However, this interpretation will allow us to avoid unnecessary assumption and will, in consequence, narrow the range of possible logical and ontological error. This point is clearly reflected in the following passage. Russell says, "...it becomes very difficult to see what (classes) can be, if they are to be more than symbolic fictions. Now, if we can find any way of dealing with them as symbolic fictions, we thereby increase the logical security of our position, since we avoid the need of assuming that there are classes without being compelled to make the opposite assumption that there are no classes. We merely abstain from both assumptions. This is an example of Occam's razor, namely, 'entities are not to be multiplied without necessity.' But when refuse to that there are classes, we must not be supposed to be asserting dogmatically that they are none. We are merely agnostic as regards them: like LaPlace we can say, 'je n'ai pass besoin de cette hypothe'se."[116]

If we carefully notice the insight of the above passage, it would seem clear to us that there underlies a basic similarity between Russell's motivation for reconstructing class sentences and his motivation for reconstructing description-sentences. In both cases, it seems clear to us that Russell seeks to provide an analysis that would show how we may interpret sentences containing expressions of a certain kind without attributing ontological significance to those expressions. In both cases, Russell seems to have thought that the presence of expressions ostensibly designating entities misleads us into assuming that sentences containing theses expressions are about their (supposed) designate and that these entities are, therefore, part of the basic furniture of the world.

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[115] Russell, Bertrand. Principia Mathematica, op. cit. pp.62-63.

[116] Russell, Bertrand. : Introduction to Mathematical Philosophy, op. cit. 184.

However, if we deny this assumption, then we have to establish that these expressions in question are merely symbolic conveniences without ontological significance. This can be accomplished by demonstrating that they are definitionally eliminable and that in theory at least; nothing can be stated with them that cannot also be stated without them. Thus, there is no need to postulate questionable entities which analysis shows to be unnecessary. Russell further contends that class symbols, no more than descriptions, are part of the 'minimum vocabulary' needed to describe the world. Accordingly, we need not assume the existence of entities, classes, corresponding to them. As Russell says, "…. class cannot be regarded as part of the ultimate furniture of the world. It is difficult to explain precisely what one means by the statement, but one consequence which it applies may be used to elucidate its meaning. If we had a complete symbolic language, with a definition for everything definable, the undefined symbols in this language would represent symbolically what I mean by 'the ultimate furniture of the world.' I am maintaining that no symbols either for 'class' in general or for particular classes would be included in this apparatus of undefined symbols."[117] ……

Urmson's Observation on Russell's interpretation of Class-Symbols:

Prof. Urmson raises a few serious charges against Russell. Russell admits that class symbols are incomplete symbols, which Urmson rejects. Urmson claims that to hold that class symbols are incomplete symbols is tantamount to showing that classes do not exist. Urmson argues that in holding such a view, Russell is, in fact, departing from the definition of incomplete symbols what he has employed in his analysis of descriptions. According to Urmson, to analyze a symbol as incomplete did not show that the entity supposedly designated by the symbol did not exist, but showed "at the most… that descriptive expressions were logically eliminable from propositions…."[118] In upholding that exhibiting class-symbols as incomplete would prove that classes do not exist. Russell has, Urmson conceives, 'misrepresented the matter to make it appear that to say of an expression that it was incomplete was inevitably to suggest that it do not stand for any genuine object."[119] Thus, Urmson concludes, " Russell could think of his logical analysis as a metaphysically powerful weapon which enabled him to get down to the basic

[117] Ibid, p.182.
[118] Urmson, J.O.: Philosophical Analysis, Oxford University Press, 1956, p. 30.
[119] Ibid. , p.31.

realities, whereas in fact it merely enabled him to see the mistake in certain logical arguments for admitting as basic entities things which he was rightly reluctant so to regard."[120]

In Principia Mathematica, Russell outlines incomplete symbols like: "By an incomplete symbol we mean a symbol which is not supposed to have any meaning in isolation, but is only defined in certain contexts."[121] Definite descriptions, i.e. phrases like 'the-so-and-so' are incomplete in the sense that they have only 'definition in use' and nothing else. Such expressions have meaning in certain specified sorts of contexts, but that it is idle to ask what the expression in isolation stands for, and gives as an example of a definition in 'use the symbolic version of his analysis of definite descriptions in which 'he gives a meaning to 'the so and so is of such and such a kind', but gives no meaning to 'the so and so' in isolation. Socrates, stands, for a certain man, and therefore has a meaning by itself. If we supply a context as in 'Socrates is mortal', theses words express a fact of which Socrates himself is a constituent.

It appears clear from the above, Urmson claims, that Russell has introduced' incomplete symbols' in such a way that whenever by logical analysis we can eliminate 'an expression', such an expression is to be called an incomplete symbol and is regarded as having a meaning only in certain contexts. According to Urmson the definite description, 'the master of Plato is mortal' can be analyzed into' There is one and only one thing which is master of Plato and mortal' where the subject term 'the master of Plato, is being eliminated and hence it is regarded as an incomplete symbol. However, Russell would like to say, says Urmson, that since the name 'Socrates' cannot be eliminated, it is not an incomplete symbol. However, Urmson opines that Russell puzzlingly adds: "The symbols for classes, like those for descriptions, are, in our system, incomplete symbols; their cases are defined; but they themselves are not assumed to mean anything at all... the uses of such symbols are so defined that, when the definiens is substituted for the definiendum, there no longer remains any symbol which could be supposed to represent a class. Thus, classes...are merely symbolic or linguistic consequences, not genuine objects..."[122] According to Urmson, there we witness a considerable confusion with the remarks of

[120] Ibid. , p. 31.
[121] Ibid. , p.28.
[122] Ibid,. 29.

Russell cited above. For Urmson, Russell speaks of classes as being incomplete symbols when he must surely have meant to say that class symbols were such. In fact classes without symbols cannot be incomplete. To show that 'X is an incomplete symbol is equal to show that there are no Xs. Accordingly, to prove class are incomplete symbols, one has to prove that classes do not exist. Bur Russell, Urmson opines, cannot do this. What Russell, at best, claims that descriptive expressions can logically be eliminated from propositions; however, from this it does not follow that the content of the phrase 'the so-and-so' does not exist.

The question, then is, what prompts Russell to involve into this confusion? Urmson says that Russell at one time with the influence of logical consideration has demanded that queer entities had some sort of being. However, with the appearance of definite descriptions, Russell enabled him to say that there were no such things as round squares. But subsequently, Russell holds the position that definition descriptions are incomplete symbols, which stood for no genuine objects as it abolishes the analysis of descriptions. Russell then extends his view into the class symbols and thereby maintains that class-symbols like definite descriptions are incomplete. Urmson claims that Russell has confused himself by holding the view that incomplete expression does not stand for any genuine object, which has no longer been accredited by the original definition of incomplete symbols.

We think there is some confusion on Urmson's part with respect to what Russell means when he relates the 'incompleteness' of class symbols to the non-existence of classes. Urmson seems to have conceived that the sense in which the existence or non-existence of classes is at issue in Russell's analysis of class-symbols is what may be termed a substantive sense and that Russell is concerned with the question of whether classes 'really' exist. Russell at times speaks of the existence of classes in what appears to be a substantive sense. In Principia Mathematica, for example, Russell says, "It is not necessary for our purpose...to assert dogmatically that there are no such things."[123] Therefore, the existence of classes, in a substantive sense of 'exist' is not at issue. More specifically, it can be said that whether class symbols do exist or do not exist is not a point here, but what is important to observe here is that whether class symbols can be

[123] Ibid. , p. 29.

eliminated from the propositions in which they occur without changing the meaning of theses propositions. If class symbols can be eliminated from the propositions, Russell himself thinks so, and then class symbols, like definite descriptions, would surely be considered as incomplete symbols.

Urmson, however, contrasts (a) showing that expressions are logically eliminable from propositions and (b) showing that entities they supposedly designate do not exist. For Russell the only sense in which the non-existence of classes is at issue in the analysis of class-symbols is just this sense that symbols ostensibly referring to classes are not genuine constituents of the propositions in which they occur. To say that classes do not exist is, for Russell, is to say that class-symbols do not function referentially and that, therefore, the facts asserted by class proposition need not be assumed to contain entities, classes as elements. This is precisely analogous to the situation with respect to descriptive phrases. In both cases, Russell is arguing from the philosophically classified from of proposition to the logical form of fact the proposition asserts. Since neither descriptions nor class-symbols are indispensable elements in the propositions in which they occur, they cannot be included as part of the primitive notation of a logically perfect language. Logically perfect language, as we saw, is a kind of language, which will show at a glance the logical structure of the facts asserted or denied. It is in this regard that Russell treats his analytic method in 'getting down to basic realities.'

Model III

The Logical Construction of Physical Objects:

The so-called logical construction of physical objects is considered to be another important aspect of Russell's constructionism. The logical construction of physical objects is directly associated with the theory of acquaintance. According to this theory besides relations, including qualities, only sense data can be genuinely known. Besides sense data, all other supposed entities are only 'inferred', which, for Russell, are not known in strict sense. This means that the existence of physical objects, qua metaphysical entities, can be called into question. By virtue of their very nature, they are never experienced,. In his **The Problems of Philosophy**, Russell goes on to say that 'if we take any common object of the sort that is supposed to be known by the senses, what the

senses immediately tell us is not the truth about the object as it is apart from us, but only the truth about certain sense data which depend upon the relations and the object. Thus, Russell claims, "that what we directly see and feel is merely 'appearance', which we believe to be, assign of some 'reality' behind. But if the reality is not what appears, have we meant of knowing whether there is any reality at all?"[124]

What do we mean by the construction of physical object? How does Russell construct physical object? In what sense physical objects differ from sense data? According to Russell sense data ~~is~~ are something that can be genuinely known and our knowledge of physical objects are something that constructed as 'metaphysical' entities standing behind sense-data. So the difference between our knowledge of sense data and our knowledge of physical objects is not difficult to spell out. In the case of sense-datum the only evidence required to substantiate our belief in its existence is the sense datum itself. When we say that 'there is a brown elliptical patch here now', the only evidence needed to establish this statement is my awareness of a brown elliptical sense-datum here now. The important thing is that if we are aware of the sense-datum that is the end of the matter. That means barring our awareness, no other evidence is further required. Through our general awareness of the statement, the statement, the statement itself is verified. Russell says, ".... the immediate facts perceived by sight and touch do not need to be proved by argument, but are completely self-evident."[125]

According to Russell, unlike sense-data, knowledge of physical objects has a different status. For him knowledge for the existence of physical objects involves more than just awareness of sense-data. It involves a belief that there is in addition to any sense data we may experience, a non-empirical something that is the 'cause' of the sense-data and persists when there are no sense data at all. Since physical objects can never be given in experience, their existence can only be inferred. The moment this kind of inference enters into a belief, however, the belief becomes less than certain. For example, when we say that ' this is a pen' we do not assert more than the present empirical evidence can substantiate, rather we assert more than any empirical evidence can substantiate. This is mainly because of the fact that at least part of what we mean by 'pen' is non-empirical

[124] Russell, Bertrand. : Problems of Philosophy, New York, Oxford University Press, 1959, p.76.
[125] Russell, Bertrand. : Our Knowledge of the External world, New York, 1960, p. 58.

and therefore not subject to empirical verification. This suggests quite adequately, that the belief in the pen is questionable as it involves qua-metaphysical entity. Russell says, "...we can never prove the existence of things other than ourselves and our experiences."[126] This confirms that knowledge of physical objects is a second order knowledge where belief system is involved and such type of knowledge can never be proved by experience and it is standing beyond sense-data.

What Russell intends to say is that knowledge of physical objects cannot be conceived through acquaintance. That means we can never know them 'by acquaintance'. The question then is: What else remains to know them? In responding to this question, Russell goes on to say that although they cannot be known by acquaintance, they can be conceived by descriptions. Why are they known by descriptions? We know them by descriptions, Russell says, because physical object causes such and such sense-data. The question then is: What is the objective of Russell to construct physical objects? In fact Russell does not intend to save the common sense-belief in the existence of physical objects. Rather he desires to come to the conclusion through the method of systematic doubt that the existence of physical objects could be called into question. Russell's own assessment is that our knowledge of physical objects is doubtful and since it is doubtful, he, therefore, prompts to formulate a theory of physical objects that does not require the assumption of an inferred, metaphysical entity. If we carefully go through the insightful literature of Russell, it would seem clear to us that there underlies two important aspects of Russell's philosophy which are directly related to his dissatisfaction with the common sense notion of physical objects. These are: (a) the desire to justify physical science and (b) the rejection of postulation. The question then is: Why does Russell desire to justify physical science? The reason perhaps would be that Russell wishes to validate its claim to be an empirical understanding. In his book Mysticism and Logic, Russell inclines to say that since physics is based upon observation and experiment, it is said to be an empirical science. It is verifiable, i.e. capable of calculating beforehand results and subsequently confirmed by observation and experiment.

What can we learn by observation and experiment? In responding to this question, Russell would like to say that nothing except immediate data of sense, i.e. certain patches

[126] Russell, Bertrand. : Problems of Philosophy, op. cit. p. 22.

of colour, smells, etc. with certain spatio-temporal relations. Now if physical objects are to be verified, they must be solely through their relations to sense-data. They must have some kind of correlations with sense-data, and must have verifiable through their correlations alone.[127] Russell actually seeks for a justification of physics. It actually arises from the fact that it assumes physical objects as non-empirical entities. Thus any attempt to make a correlation of physical objects with sense-data owing to verify that they exist, it would seem that verification is not forth coming. Russell says, "A correlation can only be ascertained empirically by the correlated objects being constantly found together. But in our case, only one term of the correlation, the sensible term, is ever found the other term seems essentially incapable of being found. Therefore, it would seem, the correlation with objects of sense, by which physics was to be verified, is itself utterly and for ever unverifiable."[128]

However, the fact is that, we cannot verify statements about physical objects. Since statements of physical objects, Russell opines, cannot be verified, we have to conclude either that physics is not an empirical understanding or we have to reformulate the concept of physical object in such a way that physical objects are no longer conceived as non-empirical entities standing behind sense data. To effect this reformulation, we have to interpret physical objects as " functions of sense-data" Russell says, " ...if physics is to be verifiable we are faced with the following problem: Physics exhibits sense-data as formulation of physical objects, but verification is only possible if physical objects are exhibited as functions of sense data. We have therefore to solve the equations giving sense-data in terms of physical objects, so as to make them instead give physical objects in terms of sense-data."[129]

As far as Russell's rejection of postulation is concerned we can say that Russell at the very outset uses of Occam's razor in order to avoid postulating unnecessary entities. His method of analysis aims at to have the ultimate furniture of the world. Russell seems to have conceived that neither objects described, nor classes could be as part of the ultimate furniture of the world. Russell equally doubtful regarding physical objects as he believes that since physical objects are not given to sense experience, they too are supposed as

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[127] Russell, Bertrand. : Mysticism and Logic, op. cit. p.140.
[128] Ibid. p.140.
[129] Russell, Bertrand. : Our Knowledge of the External World, op. cit. pp. 84-85.

postulated entities whose existence is problematic and begs question. Thus, Russell conceives that there remains only entities whose existence can be regarded certain are the data of sense. Accordingly, to infer anything over and beyond these data actually begs question. Russell himself goes on to say that beyond sense data, the existence of entities which somehow 'cause' the sense data, is to argument one's ontology without adequate warrant. The presence of physical object words in the language does not imply the existence of physical objects as ontologically basic entities, any more than the presence of descriptive phrases and class symbols implied the existence of entities corresponding to these expressions. Russell further contends that instead of assuming that there are symbols ostensibly standing for physical object we should try to desire some way of treating physical object statements as logically function of sense-datum statements. In this way we can avoid unnecessary and risky inference to entities not known to exist. Thus, it seems clear to us that Russell desires to exhibit physical objects as function of sense-data. The question then is: what would be the procedure to accomplishing this? Russell does, of course, outline a procedure in this regard, which we think, is more complex as it involves, among other things, construction of a 'six- dimensional' space. We have to delve into this procedure, as our objective as of this sequel is to outline the very general features of Russell's logical construction of physical objects.

In this regard, we have to dig up the relationship between sense-data and physical objects, because it seems to us that physical objects can be regarded as a 'construction' out of sense-data. The only notable difference between them is that sense-data are not something postulated unlike physical objects. Russell says, " 'a thing' will be defined as a certain series of aspects, namely those which would commonly be said to be of the thing. To say that a certain aspect of an object of a certain thing will merely mean that it is one of those which, taken serially, are the thing."[130] The above passage of Russell gives us an important clue, which hinges on the principle that construction of physical object out of sense data might not be **logical**, but a real construction. In what sense the so-called construction would be real? Such construction would be real if the so-called sense data are conceived as constituents of physical objects in a way somewhat analogous to the way individual cells make up a bodily organ or atoms make up a molecule. The way

[130] Russell, Bertrand. : Ibid. , p.85.

Russell actually understands the relationship between sense-data and physical objects is more adequately shown in the statement immediately following the passage just quoted where he says, " Everything will then proceed as before: whatever was verifiable is unchanged, but our language is so interpreted as to avoid an unnecessary metaphysical assumption of permanence."[131] As far as the method of construction of physical object out of sense data is concerned, Russell would like to say: "Given a set of propositions nominally dealing with the supposed inferred entities, we observed the properties which are required of the supposed entities in order to make these propositions true. By dint of a little logical ingenuity, we then construct some logical function of less hypothetical entities, which has the requisite properties. This constructed function we substitute for the supposed inferred entities, and thereby obtain a new and less doubtful interpretation of the body of propositions in question."[132]

Since physical objects are the constituent of sense-data, it follows that the meaning of physical object statements must be completely reducible to the sense-datum statements that express their empirical 'cash value', i.e. their verifiable content. Thus, it can be seen that Russell's construction of physical objects is a method whereby propositions containing reference to physical objects (inferred entities) are constructed in such a way that, in the propositions as reconstructed, there is no longer any reference to the physical object, but only references to the sense-data (the less hypothetical entities). But what is praise-worthy is that these latter propositions, Russell maintains, will have the same meaning as the original propositions because insofar as the verifiable content of the original propositions is concerned, nothing has been changed. This theory or method actually runs with the principles of acquaintance, which states that any word is significant for us must either designate some entity or entities with which we are acquainted, or be definable in terms of words which designate entities known by acquaintance. This actually leads us to say that the meaning of physical object statements must be completely reducible to the sense-datum statements.

Thus it seems clear to us that Russell desires to construct physical objects out of sense data on the basis of the principle of acquaintance. Accordingly, Russell claims that

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[131] Ibid. , p. 138.
[132] Ibid. , p. 151.

anything else physical object propositions may be supposed to assert must be 'according to the theory of acquaintance, without significance for us.' Why? Because it then involves something with which we cannot be acquainted; and hence as a matter of fact we have to infer it. It therefore belongs to the postulation stage of which we are not certain in terms of its existence. According to Russell when the meaning of physical object statement is given in the sense-datum statements, then in such a case, it would normally be said to verify this statement. Accordingly, any physical object statement can theoretically be restated in such a way that all physical object words are eliminated in favour of words designating sense-data. This is all without the fundamental insight that lies submerged in Russell's logical construction of physical objects.

Berlin's observation on Russell's construction of physical objects out of sense-data:

Isaiah Berlin does not agree with the proposal as given by Russell regarding the construction of physical objects out of sense-data. Russell, as we saw, claims that the so-called physical objects are the real construction out of sense data and as a matter of fact the meaning of physical object statements can be reduced into sense-datum statements. However, Berlin thinks the other way round. He holds that the meaning of physical object statement can not be rendered by statements about sense-data. Berlin's argument actually focuses on the inadequacy of an analysis, in terms of sense-data, of statements about unobserved physical objects. Going forward, Berlin's points out that though the physical object statement is categorical, all the sense-datum statements in the analysis of this statement will be hypothetical. Thus the so-called construction of physical object out of sense-datum is the replacement of the categorical physical object statement by hypothetical statements about sense-data that would be obtained under certain conditions or situations. This, according to Berlin, is always problematic to the plain man as it actually substitutes 'something intermittent and attenuated for something solid and continuous."[133] Berlin, therefore, inclines to say that this doubt involving in such analysis is well founded which is required to uncover.

The question then is: what is wrong with translating a categorical statement about an unobserved physical object into hypothetical sense-datum statements? In order to uncover the logical difference between categorical and hypothetical statements, Berlin goes on to

[133] Berlin, Isaiah. : "Empirical Propositions and Hypothetical Statements", Mind, LIX, July, 1950, p. 29.

say that unlike hypothetical statements, categorical statements "tend to convey that the object referred to has occurred or is occurring or will occur in time; existed, is existing, or will exist. They have a non-descriptive, existential, ostensive element; they seem to invite us to look for the entity they supposed to be about."[134] On the contrary, whatever hypothetical statements describe or mean do not as a general rule directly assert that something has been, is being, or will be occurring, or existing, or being characterized in some way. In other words, it can be said that something is occurring hypothetically amounts to saying that it is not, in the traditional sense, occurring at all, but might or would occur if conditions were realized. Berlin inclines to say that the difference between categorical and hypothetical statements is actually associated with the concept of 'existential import'. In fact this is the main source of dissatisfaction of the plain man's with phenomenalistic reduction of physical –objects statements. According to Berlin one can be disturbed here because he realizes that if the hypothetical sense datum statements are not being fulfilled, if there is no observer suitably located, then is such s situation there would be no sense data. Again if there would be no sense-data, then there is, according to the phenomenalistic interpretation, nothing at all. However, the original statement states something quite different from this as it states, Berlin claims, that something exist whether or not there are observers suitably located.

What has been said above actually brings us to the central point in Berlin's criticism of phenomenalistic interpretations of physical statements. According to Berlin the mistake that has been committed by the phenomenalists' is that instead of giving the meaning of physical-object statement, they are describing the conditions under which these statements would be verified. In fact, Berlin opines, the phenomenalistic analyses do not state the meaning of physical object statements is proved. The statement, such as, 'there is a table in the room' is to be analyzed entirely in terms of hypothetical if no one happens to be observing the table. However, instead of that if someone observes the table, then it must be partially analyzable into categorical propositions about sense-data. If the phenomenalists were right, then we would have to say that the meaning of this statement shifts from partially categorical to wholly hypothetical as we look at and away from the table. However, such type of interpretation does not match with the ordinary

[134] Ibid. , p. 299.

view which holds that the meaning would remain same in both cases-when the table is observed and when it is not. On the basis of this observation, Berlin therefore concludes that the phenomenalistic interpretation of physical object statements does not give the meaning of these statements. We think that Berlin's own apprehension of phenomenalism deserves special attention. He not only shows that phenomenalistic analysis of existential physical-object statements do not seem to square with common sense and ordinary language, he also makes the valuable suggestion that phenomenalists may have confused statements which give the meaning of physical object statements with statements which describe the circumstances under which the physical-object statements would be verified. It seems to us that the question raised by Berlin is actually linked with the relationship between a physical object statement and its verificatory statements, which according to Berlin is quite close.

How far Berlin is right against Russell needs to be addressed. In fact Berlin's seems to feel that phenomenalism is wrong as it seams to rest on a mistaken analysis of what normal material object statement state. If we carefully analyze the insight of Berlin's argument against phenomenatist, we think that his argument is not as much as forceful as it appears to be. Berlin's whole case against interpreting physical object statements in terms of sense-datum statements is that to do so is incompatible with the logical and ontological framework of ordinary language. This implies, of course, that an interpretation like Russell's attempts to analyze the ordinary meaning of physical-object statements and is inadequate because it fails to do justice to the ordinary meaning. Russell, in fact, does not suggest that his analysis gives the ordinary meaning of physical object statements, if by 'ordinary' we understand the meaning common sense attributes to them. Russell perfectly conceives that for common sense the translation of a physical object statement into its verificatory sense-datum statements does not duplicate the meaning of the original statement. Rather Russell inclines to say that the common sense interpretation of physical object statements is, for philosophical purposes, unsatisfactory. This is justified in saying that in ordinary language we posit entities, which we do not and cannot know. That is why, Russell at the very outsell advocates his adherence to the theory of acquaintance in order to formulate his theory of meaning. In connection with the present issue, i.e. the meaning of statements about unobserved physical objects, we

quote a particular passage, which is illuminating. Russell says, "Physics started from the common-sense belief in fairly permanent and fairly rigid bodies-tables and chairs, stones, mountains, the earth and moon and sun. This common sense belief, it should be noticed, is a piece of audacious metaphysical theorizing; objects are not continually present to sensation, and it may be doubted whether they are there when they are not seen or felt."[135] If a statement about unobserved physical object is interpreted as meaning something more than the hypothetical statements about sense-data that would serve to verify the physical object statement, then physical object must be conceived as entities which are, to some extent, non-empirical, i.e. metaphysical. Owing to bypass the difficulties underlying in the notion of physical objects, Russell proposes a new way of interpreting statements about physical objects. According to this new interpretation, a statement about physical object would be just a convenient way of referring to statements about sense-data, actual and possible. Accordingly, references to qua-metaphysical entities would fall outside the range of meaningful discourse. On the basis of this interpretation as proposed by Russell the meaning of physical object statement is given by its verificatory sense-data statements.

Are we then say on the basis of Berlin's apprehension that Russell logical construction of physical object is based on a mistake? Surely, we cannot say that Russell's logical construction of physical object is just a mistake resulting from the failure to understand the logic of physical object statements in ordinary language. In fact Russell's analysis of physical object statements as functions of sense-datum statements was intended to provide a philosophical clarification of the meanings of each statement that are cognitively significant. In doing so, Russell does not only offer description of the ordinary meaning of physical object statements, but rather as an analysis, Russell equally improves on the ordinary meaning for philosophical purposes. It permits, Russell says, us to define physical object words in such a way that they need not be assumed to denote entities, which are not known to exist, but only known entities, sense-data. To the extent that physical-object statements cannot be interpreted as statements about sense-data, Russell conceives, such statements are without meaning.

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[135] Russell, Bertrand. : Our Knowledge of the External World, op. cit. p. 82.

We are now in a position to assess ourselves in what sense the logical construction of physical objects, at least in theory, would accomplish the two things Russell wishes to accomplish. We have seen that Russell's intention of introducing this theory is to justify physics and enable us to avoid postulation of superfluous entities. Owing to justify physics, Russell inclines to say that it is really is what it claims to be an empirical science. This could have been accomplished if we were able to translate physical object statements into sense-datum statements, as all sense-datum statements are theoretically capable of empirical verification. And if physical objects are interpreted as logical functions of sense-data, then the words ostensibly designating physical objects are not part of the minimum vocabulary. Accordingly, statements containing such symbols need not be interpreted as statements about physical objects. Therefore, we need not postulate physical object to serve as referents of those symbols.

We thing the so-called logical construction of physical objects being a model of reconstruction has some sort of similarity with the other two models previously discussed. Like class symbols and descriptions, it equally attempts to avoid entities merely postulated to exist and accordingly, it proceeds to reconstruct propositions containing expressions supposedly designating the postulated entities so that in the proposition as reconstructed the expression has been eliminated. In all three cases, the reconstruction is supposed to have the same meaning as the original proposition and since everything the original proposition states can be stated without referring to the postulated entities, the expressions in question are seen to be superfluous. Therefore, although Russell does not speak of physical object as such, but physical object symbols are like descriptions and symbols for classes 'incomplete symbols' and accordingly are not genuine constituents of the propositions in which they occur. In fact Russell's prime objective of the logical construction of physical object is an instance of his use Occam's razor to have logical as well as ontological economy in our speech and thought about the world. Russell says, " ...by the principle of Occam Razor, if the class of appearances will fulfill the purpose for the sake of which the thing was invented by the prehistoric metaphysicians to whom common sense is due, economy demands that we should identify the thing with the class of its appearances. Our procedure here is preciously

analogous to that which has swept away from the philosophy of mathematics the useless menagerie of metaphysics monsters with which it used to be infested."[136]

Observation:

We have explained three models under the title of the uses of reconstructionism after Russell. In fact, we have noticed that Russell's intention of introducing reconstructionism is to resolve a very specific philosophical problem underlying in ordinary language. Russell intuits that there underlies certain loopholes in the grammatical structure of the propositions of ordinary language and certain kind of expressions belonging to this language actually distort the true structure of the propositions in which they occur. Russell claims that a proposition belonging to this language apparently appears to be a proposition about some entity designated by the expression, but for one or more reasons, the assumption that it is about this entity generates philosophical difficulties. We have seen, after Russell that in the case of description- propositions the assumptions that descriptive phrases function referentially gives rise to a dilemma concerning vacuous descriptive phrases. In the case of class-symbols, we have witnessed two kinds of contradictions, such as, a class must be both 'one' and 'many' and under certain situation a class can be said to be, and also not to be, a member of itself. And finally, in the case of physical-object propositions, we again witness a dilemma that is associated with the fact that if physical object symbols are assumed to designate metaphysical entities, physical objects, then there underlies an incompatibility between what these propositions assume to assert, and what, according to Russell's theory of acquaintance, they can meaningfully assert.

By introducing the three models as the uses of reconstructionism, Russell seems to have conceived that although the expressions in question functions referentially are of different orders, they can all be resolved in the same general way by detecting the troublesome expression as an incomplete symbol. Owing to have this, it must be shown that the expression does not appear in a logically clarified restatement of the proposition in which it originally occurs. If an expression fails to do this, it means to say that the expression under consideration is not a genuine constituent of the proposition. It is not, therefore, a part of the minimum vocabulary required for asserting facts of a certain type. Once it is

[136] Russell, Bertrand. : Mysticism and Logic, op. cit. pp. 149-50.

seen that all facts asserted by description propositions, class propositions, or physical object propositions can be asserted without descriptions, class symbols, or physical object symbols, the difficulties to which these expressions give rise disappear. In this regard, reconstruction is considered to be a method, an effective one, which is directed to unveil philosophical insight into the logical structure of language and the ontological structure of facts. This is prerequisite simply because Russell has intuited a thoroughgoing isomorphism between language and reality. Russell further conceives that the logical and ontological clarification could proceed simultaneously through the proper analysis of language. Since Russell primary objective of his method of analysis of language is to uncover the basic forms of fact-asserting sentences, the uses of reconstructionism is supposed to be an effective tool in this regard.