

Chapter One

The Classical (descriptive) Theory of Reference

According to the classical (description) theory of reference, the sense of a name is given by a definite description associated with the name; its sense is the sense of that description. So, names can be treated as abbreviated description. The name 'Aristotle' is an abbreviated description because the definite description associated with 'Aristotle' is 'the people Plato and teacher of Aleksandar the Great.' Here the name Aristotle stands as an abbreviated description, because the description expresses the sense of 'Aristotle.'

Russell's Descriptive Theory of Reference

Russell's descriptive theory of proper name is associated with ordinary proper name. According to Russell, proper names are two types, ordinary proper name and logical proper name. While identifying the distinction between ordinary proper name and logical proper name, Russell goes on to say that an ordinary proper name, such as, 'Socratics', 'Aristotle' are known *by description*; whereas logically proper names are *known by acquaintance*. According to Russell, demonstrative pronouns, such as, 'this', 'that', 'it' etc. are logical proper names. The distinctive feature of logical proper name is that it is known by acquaintance. To say that 'this is a pen' is to say that one has to be acquainted with the pen. Here the referential connection between the sentence and what it refers to can be established with regard to acquaintance. Therefore, logical proper names do not have any descriptive content. On the basis of logical proper name, there develops no-sense theory of proper name and Russell mainly took the initiative to develop this theory. Thus, when we are engaging to explicate and examine the descriptive theory of reference after Russell, we are primarily concerned with ordinary proper name. We think Russell's

descriptive theory of proper name has been developed with the background of ordinary proper name.

According to Russell, an ordinary proper name though looks like a proper name, but in real sense it is not a genuine proper name. Rather it is called a *disguised description* or an abbreviated description. Many philosophers belonging to analytic tradition would consider 'Socratics' as a proper name. But Russell does not think so. He considers the name 'Socratics' as an abbreviated description or as a disguise description.

To know about the descriptive theory of Russell, one has known about Russell's theory of description. A description, according to Russell, may be of two types, definite and indefinite. Definite description is unambiguous and indefinite description is ambiguous. Russell then says that an indefinite description is in the form of 'a- so-an-so' and a definite description is in the form 'the-so-an-so'. Whether it is definite or indefinite, the description is the description of somebody else. When I say that 'I met a man', I am here referring to a person with whom I actually met. Likewise, when I say 'I meet with the man', here again I am talking of a man with whom I met. Thus, reference does not lose its gravity or relevance even when we involve with definite or indefinite description. In the case of indefinite description, the hearer may not identify the person with whom I actually met when I am uttering the sentence 'I met a man'. Whereas in the case of definite description, the hearer can easily identify the referent of the sentence or the person with whom I actually met when I am uttering the sentence 'I met with the person'.

Russell held that certain expression must be defined contextually because they have no meaning 'by themselves', though they 'contribute to the meaning' of the sentences in which they occur.

These signs are given contextual definition because they are *incomplete symbols*. An incomplete symbol, for Russell, is an expression which does not have any meaning in isolation. It must be defined in 'certain context'. Incomplete symbols are the connectives of the propositional calculus. These signs are given contextual definitions because they are incomplete symbol. In the case of definite description, Russell offered a proof that they were incomplete symbols. His 'proof' that descriptions are incomplete symbols, is, in fact, a proof that they are not what we call proper names. Russell's account of proper names is clearer than his account of incomplete symbols.

According to Russell, a name is a simple symbol, directly designating an individual which is its meaning, and having this meaning in its own right, independently of the meanings of all other words. This position of Russell is deeply rooted with his referential theory of meaning. What does it mean to say that a symbol *directly designates* an individual? What does it mean to say of a 'symbol' that it has its meaning in its own right and independently of the meanings of all other words? When Russell inclines to say that a symbol directly designates an individual, it is clear that for Russell this individual is the meaning of the name. What does Russell actually mean by the term 'the meaning of the name'? By the term 'the meaning of name' Russell actually means the 'bearer' of the name. That means the thing which has the name is the meaning of the name. Russell while developing his descriptive theory of reference further assumes that in any subject-predicate proposition, the meaning of the subject term is the thing denoted or referred to by this term. However, the problem arises to how we can make assertions which are true and therefore significant about what does not exist. If we assert 'Socratic is wise', we may analyze our assertion as saying of a certain individual that he has the characteristic of being wise. It follows from Russell's assumption that if this individual does not exist, the assertion is meaningless

because its subject term is meaningless. Thus, the object denoted by the subject term of a subject-predicate proposition must exist if the subject term is a proper name. The question is: how can we assert significantly that round squire does not exist? This assertion cannot be analyzed as saying that there is a certain object, i.e., the meaning of the expression 'the round squire', which has the characteristic of not existing: for then the assertion would be a contradiction asserting both that there is a certain object and that it does not exist. Thus, there is nothing which is the meaning of the phrase the 'round squire'.

It thus seems paradoxical that if the proposition is true, it is meaningless. Russell concluded that the grammatical similarity, between 'Socratic is wise' and 'The round squire does not exist' covers a vast difference in the logical forms of these two propositions. According to Russell, 'The round squire does not exist' cannot be analyzed as being a subject-predicate proposition, the meaning of whose subject term is the round squire. Here the object as denoted by the 'round squire' does not exist. Accordingly, the apparent subject term 'round squire' cannot be a proper name and accordingly the proposition in which it occurs in the subject term, would be meaningless. Russell thus assumes that the only possible subject terms of propositions genuinely of the subject-predicate forms are proper names. Accordingly, it can be said after Russell that a proposition of subject-predicate form where the apparent subject term denotes something which does not exist are not genuinely of the subject-predicate form. In Russell words, '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. Thus, in all such cases, the proposition must be capable of being so analyzed that what was the grammatical subject shall have disappeared.’¹¹

Here Russell is making two assumptions: (i) that the meaning of a name is the bearer of the name, and (ii) that the subject term of a genuine subject-predicate proposition is, in all cases, a proper name. The first assumption is explicitly made; but the second is not. According to Russell, ‘The round squire does not exist’ could not be true if what is denoted by the grammatical subject exist. It then follows that the ‘round squire’ is not a genuine proper name in our assertion. The only genuine subject terms, Russell opines, are proper names. According to Russell, the proper analyses of the proposition ‘The round squire does not exist’ is at par with the proposition it is not the case that there is one and only one object which is both round and squire. In *Principia* the symbol (IX) (QX) represents a definite description an expression of the form ‘the so-an-so’. This symbol can be read ‘the (unique) X which has the property Q’. Russell then says any proposition of the form ‘The (unique) X which has the property Q does not exist. On Russell’s view, the assertion that the so-an-so does not exist is analyzed as saying that it is not the case that *one and only one* thing has the property so-and-so. Consequently, the assertion ‘The so-and-so exist’ is analyzed by the proposition ‘The so-and-so exist’ is symbolized in *Principia* by the expression EI (IX) (QX).

To me, Russell perhaps doubts something odd about the assertions ‘The round squire does not exist’, ‘The queen of England exists’. Ordinarily we can say that there is no such thing as round squire or England is a monarchy and its monarch is a queen. The proposition into which this one is analyzed contains no definite descriptions. In Russell’s words the description has disappeared

¹¹Russell, Bertrand, *Principia Mathematica*, Vol. I, 2ndedn., Cambridge University Press, 1925, p. 66.

on analysis. Thus, we think Russell's theory of descriptions offers us an analysis which enables us to eliminate descriptive phrases from any context in which they occur.

What is observed from the above is that 'The round squire does not function as a proper name in the assertion 'The round squire does not exist' according to Russell. Russell attempts to prove that 'The round squire is an incomplete symbol'. Consider the proposition expressed by the sentence 'Scott is the author of *Waverley*'. Here 'The author of *Waverley*' is of the form (IX) (QX). Thus, for Russell any expression of the form (IX) (QX) would be regarded as incomplete symbol. Here (IX) (QX) means it is (IX) (X wrote *Waverley*). Here the word 'is' is used in the sense of identity.

Now let us assume that the sentence 'the author of *Waverley*' is a proper name. Then there is some object, call it 'C' which is 'directly designated' by this name. For Russell a name always designates an object. Accordingly, 'Scott is the author of *Waverley*' means the same as 'Scott is C'. Here we have two possibilities: (i) either Scott is not identical with C, in which case 'Scott is C' is false or (ii) 'Scott is identical with C, in which case 'Scott is C' means the same as 'Scott is Scott', and is a tautology. Therefore, if 'the author of *Waverley*' is a proper name, 'Scott is the author of *Waverley*' is either false or tautological. Therefore, according to Russell's 'the author of *Waverley*' is not a proper name in our sentence.

Russell thus concludes by saying that 'the author of *Waverley*' means nothing. It cannot mean C and it cannot mean anything other than C. But since everything is either C or other than C, 'the author of *Waverley*' means nothing. Here Russell attempts to prove that descriptions are not proper names in his sense. He thinks that the meaning of a definite description cannot be the thing it describes. Accordingly, with referring to his descriptive theory of meaning, the

descriptive phrases ‘mean nothing’. It thus assumes that the meaning of descriptive phrase, if it has meaning, is the thing it ‘describes’. But this assumption is not justified. Further the above argument reveals that it is circular. Russell asks us to consider the proposition expressed by the sentence:

(I) Scott is the author of *Waverley*

There is no such thing as the proposition expressed by these words. According to Russell’s theory there are at least four different propositions that (I) might be used to express. (I) might be understood as containing either (a) two proper names, or a proper name and a description. This name might be (b) ‘Scott’ or (c) ‘The author of *Waverley*’. A fourth possibility (d) is that (I) consist of two descriptions, one disguise and the other explicit. It seems clear that (c) and (d) are excluded in the above argument for Russell is clearly assuming that in (I) ‘Scott’ is functioning as a proper name and not as a disguised description. This still leaves alternatives (a) and (b).

Now according to Russell it cannot be alternative (a) which the correct one is. For if (I) contains two proper names the proposition which it expresses would be trivial and it would be same as ‘Scott is Scott’, which according to Russell, is not the case. This leaves us with alternative, Russell’s proposition is the one expressed by (I) when it is understood to contain a definite description to the Wright of the copula, i.e., ‘the author of *Waverley*’. But if it is assumed from the beginning that ‘the author of *Waverley*’ in (I) is a definite description and not a proper name, then we assume the very thing which it is the aim of the prove to establish. Another way to bring out the circularity of Russell’s argument is this. At a certain point in the above argument, Russell rejects the assumption ‘Scott is Scott’. But how can Russell know that the proposition expressed

by (I) is not trivial unless he is assuming that in (I) ‘the author of Waverley’ is not functioning as a proper name in his desire sense. If he is assuming that, what is the point of proving it?

While responding to this objection, Russell inclines to say that the proposition expressed by the sentence ‘Scott is the author of Waverley’ cannot be analyzed as saying that ‘Scott’ and ‘the author of Waverley’ are two names for the same person. If it were what the proposition asserts, what would be required for it to be true is that someone should have name ‘Scott the author of Waverley’. If someone had name ‘Scott the author of Waverley’, then ‘Scott would have been the author of Waverley’, who in fact writes Waverley. This, in fact, may not know to him who named ‘Scott the author of Waverley’. On the other hand, since Scott did write Waverley, he is the author of Waverley, even if it may perhaps be the case that no one ever named him ‘the author of Waverley’. Further, if someone had named him ‘the author of Waverley’ he would not have been the author of Waverley, if he had not, in fact, written *Waverley*. On the basis of this, Russell concludes that the proposition ‘Scott is the author of Waverley’ is not a proposition about names, like ‘Nepoleon is Bonaparte’. “This clearly illustrates the sense in which ‘the author of Waverley’ defers from a true proper name”¹². Since description is not proper names, they have no meaning in isolation. That is why Russell in his *Principia* introduces descriptions by *contextual definition*.

Many would say that the above argument given by Russell is fallacious. Linsky says that there is no reason in logic, why Scott should have been named ‘The author of Waverley’. If he had been thus named, and if someone in appropriate circumstances had asked him ‘The author of Waverley’. In such a case it would have been true to say this whether are not Scott had actually

¹². Ibid, p.67.

written *Waverley*. According to Linsky, "...if I wished to tell you that Scott was the author of *Waverley* I would just say, 'Scott is the author *Waverley*'"¹³

Let us now consider to the analysis of propositions of the form 'the-so-an-so'. Consider Russell's example: 'The author of *Waverley* was a poet'. According to Russell, here the definite description express through the sentence entails three propositions. These are:

- (i) At least one person authored *Waverley*
- (ii) At most one person authored *Waverley*
- (iii) Whoever authored *Waverley* was a poet.

According to Russell the conjunction of these three propositions as cited above define what is meant by the proposition 'The author of *Waverley* was a poet'. The original proposition is in the form of 'the-so-an-so'. It is in the form of definite description. According to Russell any statement what so ever, if it would accord with the form of definite description i.e., 'the-so-and -so', it can be logically paraphrased into 'at least one', 'at most one', and 'an exactly one'. That means the conjunction of these tree propositions (namely, (i), (ii), (iii)) define what is meant by the original proposition. In his *Introduction to Mathematical Philosophy*, Russell tells us that this means that 'The author of *Waverley* was a poet' both logically entails and is entailed by the conjunction of these three propositions. Accordingly, they are equivalent. For Russell, any proposition of the form $\exists x (Qx)$ entails (1) $\exists x (Qx)$, and (2) $\forall x \{ \exists y [(Qx) \& (Qy) \supset (x=y)] \}$. (1) states that at least one thing has the characteristic, Q and (2) states that at most one thing has Q. The conjunction of (1) and (2) is logically equivalent to $\exists c \{ \forall x [(Qx) \supset (x=c)] \}$. And this is the definiens of the definitions for $E! (Ix) (Qx)$. Therefore $E! (Ix) (Qx)$ is entailed by every

¹³Linsky, Leonard, Referring, Humanities press, 1967, p.55.

proposition of the form U (IX) (QX). What is further entailed is that the unique thing which has the characteristic Q also has the characteristic U.

It may however be the case that what, for one person, is a proper name, is for other person is a disguised description. This is true even if we compare Russell with Frege. What Russell has said disguised description is at par with what Frege has said proper name. According to Russell, ordinary proper names are disguised description because even though they apparently look like names, but in real sense of the term, they are really disguised descriptions or *surrogate names*. Frege thinks the other way around. Unlike Russell, Frege holds that a linguistic expression, including phrase, clause or an incomplete part of a sentence would be treated as name if it has complete sense. Thus, unlike Russell, Frege gives importance on the sense or mood of presentation of proper name. Since the meaning of name is its bearer or what the name designates, to know the meaning of a name or to know the sense of a name is to know its bearer, i.e., its designator. Again to know the bearer of a name is to be acquainted with the bearer according to Russell. Since we are not at all acquainted with the same things, what is for one person a proper name may not be for other person a proper name according to Russell. Since Russell's interpreted proper name as logical proper name where a proper name designates an object, with which we are acquainted, a proper name which fails to designate an object would not be treated a genuine proper name according to Russell. Thus, Russell understanding of proper name is uniquely determines whether the proper name under consideration fulfills its referential commitment. In our sense *the referential commitment* is an inevitable commitment where the referential object is known to us in terms of acquaintance.

Now if a name, according to Russell, designates an object which at times is acquainted to a person and at other times is not acquainted to another person than certainly it would not be

regarded as a genuine proper name, what Russell termed as logical proper name. In such a case, what is a name for one person may be regarded as a description for another. In such the problem will occur and there might be difficulty in two such people understanding each other. However, Russell has not been disturbed by this. He anticipated the problematic area of proper name as far as their denotations and connotations, extensions and intentions are concerned. He anticipated very well that the distinction between logical proper name and ordinary proper name is prerequisite. As a result of that when the whole host of semanticists were voicing in favor of proper names, Russell further extended a little bit about the distinction between logical proper name and ordinary proper name. His descriptive theory of proper name has been originated and developed because of this problematic area of proper name. Russell elsewhere things that so long as what is a name for the one person names the same thing that is described by what is a description for the other there will be no difficulty.

However, Leonard Linsky finds some problems with Russell's positions just stated above. According to Linsky, it is not at all clear how this difficulty can be avoided. In this regard he goes on to say that suppose that you are 'acquainted' with John F. Keenedy and I am not. When you hear the assertion 'John F. Keenedy is dead' this will certainly mean something different to you than what it means to me. Linsky asserts that what it means to me depends on what description 'John F. Keenedy' is a 'disguise' for in my case. Even it may be a 'disguise' for 'the husband of Mrs. Keenedy'. Then 'John F. Keenedy is dead' means to me (Linsky) that the husband of Mrs. Keenedy is dead. However, it does not mean the same to you. Further, suppose that in a third case the description is a disguise for 'the father of John-John'. Then 'John F. Keenedy is dead' in the third case means that the father of John-John is dead. Linsky claims that in such a case it would seem to be only in the case of a lucky accident the two people would

mean the same thing by 'John F. Keenedy is dead'. These consequences, Linsky reveals, are absurd and he was wondering how Russell can avoid them.

Linsky, however, attributes credit to Russell that he (Russell) recognizes a difficulty here. At the same time linsky thinks that Russell's attempt to deal with this difficulty is not sound enough. If we say, e.g., Bismark was an attitude diplomatist following Russell, we intent to make our statement, not in the form involving the description, but about the actual thing describe.

Accordingly, we should like to make the judgment which "Bismark alone can make, namely, the judgment of which he himself is a constituent."¹⁴

But however, we cannot make the judgment according to Linsky because we can use an expression which means in such a judgment being unacquainted with Bismark. As a result of that we do not come to know the meaning of an expression which 'means' Bismark. As a result of that, any proposition containing such an expression would be meaningless for us. What Linsky intends to say here is that there is 'an object B' called 'Bismark' and we know that B was an attitude diplomatist can thus describe the proposition, namely, 'B was an attitude diplomatist', where B is the object which stands for Bismark. Here Linsky claims that what enables us to communicate in spite of the varying description we employ is that we know there is a true proposition concerning the actual Bismark. We may vary the description, according to Linsky, so long as the description is correct, the proposition described is still the same. This proposition, which is described, is known to be true, is what interest us: but we are not acquainted with the proposition itself, and "do not know it, though we know it is true".¹⁵

¹⁴Mysticism and Logic, Longmans, Green & Co., 1925, London, p.218., Chapter X.

¹⁵ Ibid., P. 218.

What Linsky finds incoherent here is that the idea of a proposition which we know to be true which we cannot understand. Alternatively, it can be said after Linsky that a proposition cannot be understandable even though it may perhaps be the case that we come to know it to be true. But the question is: how can we intend or so to speak intend to make a proposition which we cannot understand? How can we possibly know such a proposition to be true without understanding it? In this regard Linsky finds a special difficulty in Russell's view on the topic in connection with non-extensional context. Russell's understanding of logical proper name is denoting an object with which we are acquainted. However, his descriptive theory of reference is non-extensional in the sense that here the reference of proper name, that is an ordinary proper name, is not something with which we are acquainted. Thus, it would perhaps be the case and Russell would like to say that what is a proper name to X may not be a proper name to Y. Here Linsky asserts, if I say something of the form $f(a)$ where a is a proper name for me, my assertion $f(a)$ must then, on Russell's views, mean something different for me for what it means for you. For Linsky, what it means for you will be expressed by a sentence involving some definite descriptions say $f(IX) (QX)$. Here two cases need to be consider (i) $a = (IX) (QX)$ is not true. This case involves a special kind of misunderstanding according to Linsky, because here the thought of one person may be differentiated from the thought of another person. For Linsky, this sort of misunderstanding surely occurs in connection with our use of proper names and can easily be corrected (ii) this is the usual case, $a = (IX) (QX)$. Here one can get the reference correct. Further, if f represents an extensional predicate, what I mean when I say $f(a)$ is materially equivalent with what you understand by $f(IX) (QX)$. Russell's has found the problem and as a result of that he intended to find the distinction between logical proper name and ordinary proper name. For Linsky Russell's can face the result of misunderstanding of his theory

with equanimity for the following reason: “what you understand has the same truth-value as what I mean, and we are talking about the same thing, for $a = (IX) (QX)$. On Russell’s view, then, the normal situation with regard to human communication involves misunderstanding, but not so great a misunderstanding as to keep us from communicating truths about a commonly understood object of reference.”¹⁶

Now let ‘f’ stand for a non-extensional predicate. Further suppose I have George IV say, ‘I wonder if Scott is the author of Waverley.’ Further supposed to us ‘Scott’ is a proper name in Russell sense. Further suppose, I now say to you, ‘George IV wants to know if Scott is the author of Waverley.’ Further finally suppose that for you ‘Scott’ is not a proper name but a disguised description. What you understand by what I said will be expressed with the use of a description which expressed what ‘Scott’ means for you. Let that description be ‘the author of Ivanboe’. Now what you understand is expressed by the sentence George IV wants to know if the author of Ivanboe ‘is the author of Waverley’.

This situation creates or presence a difficulty here. Even though, Scott is the author of Ivanboe, it is perfectly possible that George IV does not know this. George IV like me knows it very well that ‘Scott is the author of Waverley,’ but he may not know that the author of Waverley is the same as the author of Ivanboe. Let us further suppose that George IV does not know that Scott wrote Ivanboe. In such a situation what we understand is not even materially equivalent with what I meant when I said, ‘George IV wants to know if Scott is the author of Waverley’. What we understand by this word is false. It would be a mere accident if what we understand in such a situation were to be materially equivalent with what I mean. It just happens to be the case that George IV also wants to know if Scott is the author of Ivanboe. No matter what descriptions

¹⁶Ibid., P.61

‘Scott’ disguises for you. The normal situation will be one in which what I mean by ‘George IV wants to know if Scott is the author of Waverley’ is true and what you understand by these words is false. According to Linsky, since the same argument can be repeated for non-extensional predicates (non-denotative predicates) generally, we may conclude that Russell’s theory faces a serious difficulty if it is viewed as a theory of communication in natural language. For Linsky, the difficulty actually hinges on how it is possible, on Russell’s views, for communication to take place when what is being reported are the beliefs, wants, hopes i.e., the ‘propositional attitudes’ of a third person.

What has been observed so far is that there is no problem as to what is meant by the phrase ‘definite description.’ It is extremely eliminative precise and vivid from logical point of view. Of course, Russell has very little to say as to what a definite description is. He precisely and succulently says that a definite description is in the form of ‘the-so-an-so.’ It is an expression of the form (IX) (QX). In this regard, Russell says that it can be read as ‘the (unique) X has the property Q.’ At the very outset of his article ‘On Denoting’ he explains the notion of definite description by giving a list of examples, namely, ‘the present king of England’, ‘the present king of France’, ‘the center of mass of solar system at the first instant of the Twentieth century’ ‘the revolution of the earth round the sun’, ‘the revolution of the sun round the earth’. All these are called ‘denoting phrases’ by Russell in 1905. Later on, denoting phrases have been renamed and called ‘definite description.’ Since a definite description is in the form of the-so-an-so, accordingly, it can be said after Russell that “a phrase is denoting in virtue of its form.”¹⁷

It seems to us that while talking about definite description of Russell, we have to talk it in terms of the form ‘the-so-an-so.’ What does it mean to say of a phrase that it is of the form ‘the-so-an-

¹⁷Russell, B. “On Denoting, reprinted in *Logic and Knowledge*”, P.41

so'? According to Linsky, the obvious response to this question is that the form of a phrase *is a matter of Grammar*. Strawson, for example, talks about phrase begging with the definite article followed by a noun, qualified or unqualified, in the singular.¹⁸ According to Strawson this is the class of expression with which Russell's Theory of Description is concerned. Strawson thinks that the phrase so-described are 'expression of the form "the-so-an-so"'.

Linsky, however, thinks that 'form' cannot be understood as grammatical form in the accounts of definite descriptions. Consider the proposition '*The Vicar of Wakefield* is behind the desk'. Here if the words 'The Vicar of Wakefield' are used to refer to novel they are the name of novel, not a description. But if the words are used to refer to the Vicar they are a description, not a name. On the basis of this, Linsky concludes by saying that the distinction cannot be one of grammatical form. More importantly, not any expression used to refer a unique object is a definite description. For example, proper names are not definite descriptions. Thus, it seems to us that whether a phrase is or is not a definite description actually depends on the logical form of that proposition description contains, and also on how the proposition is to be analyzed in a certain fashion it contains a definite description, otherwise not. Clearly, we can say, 'The Eterna city' in 'The Eternal City welcomed. The Neo Pope is not a descriptive phrase. The proposition does not entail that there exist one and only one, City which is Eternal. However, if the only way to decide whether a given expression functions as a definite description is to see whether or not Russell's analysis of such propositions would be the correct one in the case in question. It would thus follow that Russell analysis cannot be mistaken and who have argued that it is mistaken are confused over a definition.

¹⁸See Strawson, P.F., "On Referring, reprinted in *Essays in Conceptual Analysis*, ed., by A. G. N. Flew, Macmillan Co., London, 1956, P.21

Frege's view

The classical theory of reference has been treated as the basic theory of reference developed by Frege, Russell, Carnap, Searle and others. In this sequel we propose to deal with Frege and Russell. We think that the contribution of Frege and Russell holds the centrality of classical theory of reference. As far as theory of reference is concerned, there we find various types, such as descriptive theory of reference and non-descriptive theory of reference. Classical theory of reference of Frege and Russell has been attributed as the descriptive theory of reference. Even though both Frege and Russell hold the centrality of classical theory of reference, but there is no point in saying that their philosophical position regarding this theory remained same. There we find serious discriminations and conceptual differences between Frege and Russell. Having said this, their theory has been treated as the traditional or classical theory of reference because of its appearance prior to other theories on the same issue.

Frege and Locke

There is no question of doubt that Frege, being a mathematician and philosopher, has been regarded as *the father of analytic philosophy*. In fact, Frege has developed a wide conception of analytic philosophy is compare to other philosophers in the same field. Even there is nothing wrong to say that Frege has developed an integrated account of analytic philosophy in the real sense of the term. His theory of reference or referential semantic in some sense or other is associated with the prior thinkers such as Locke and others and also the later development of analytic philosophy or philosophy of language has deeply been ingrained in Frege's philosophical insights. In fact, Frege's theory of referential semantic has earned philosophical acceptability for important reasons. In this regard, Morris says, "First, his philosophy of language presents a way of accepting what seems most natural and intuitive about the kind of

approach to language found in Locke, while decisively rejecting what seems most questionable about it. And, secondly, his work offers the prospect of a thoroughly systematic approach to meaning”.¹⁹ We will certainly examine these two aspects in the course of the development of the theory of reference after Frege. According to Morris, Frege’s theory of semantic reference in some sense or other is associated with Locke’s theory of language in three important senses. Like Locke, Frege conceived that the nature of language is defined by its function. It means, both have given over emphasized on the functional aspect of language. Secondly, Frege, like Locke, holds that the essential function of language is to communicate. We think this the general apprehension as far as language is concerned. Even non-philosophers would say that language is a medium of communication. Language, so to speak, appears as a tool that can be used for communication. Of course, when both Locke and Frege said that the function of language is to communicate, they have altogether different perception of the function of language unlike the non-philosophers. Thirdly and most importantly, what language is meant to communicate is thought. We think the concept of thought is a tricky philosophical issue and many philosophers over the centuries had deeply been involved with the concept of thought. Many would like to say that Frege’s concept of thought had deeply been rooted in Locke’s concept of ideas.

Having said this, there we find some conceptual difference between Frege and Locke. According to Locke, every word is a sensible mark of ideas. In this sense, word always signifies the components of what language is meant to communicate. Thus, Locke talked in favor of the atomistic interpretation of language where words meaning had been treated prior to sentence meaning. Frege in some sense or other favors the atomistic interpretation of meaning like Locke. However, his interpretation would certainly be non-Lockean. According to Locke, as every individual word bears an idea or stands for self-standing Ideas in the mind of the speaker and in

¹⁹ Morris, *An Introduction to the Philosophy of Language*, Cambridge University Press, 2007, p.21.

turn would constitute sentential meaning by way of combination with grammatical syntax and produces a complete meaning of the speaker's mind. Unlike Locke, Frege gives importance on the context principle where priority has been laid on sentence meaning rather than word meaning. Frege thus rejects Lockean conception of the relation between words and sentences. Further Locke holds that the components of thoughts are Ideas and by way of asserting it he intends to say that words mean Ideas. However, Frege does not intend to say that words mean Ideas. Rather he intends to say that the meaning of a word is what is known by someone who understand the word. According to Frege, it is not true that all words mean or refer to ideas. In fact, Frege's conception of philosophy of language or referential semantic has been developed with the background of the *material of formal logic*. He took the advantage of formal logic to illustrate the meaning of words. He started with the development of a new system of formal logic and subsequently it has been treated as the guideline of studying elementary logic. Even Frege's development of logic completely outdated or superseded Aristotelian logic in the real sense of the term. As the problem of meaning has been interpreted with the outlook of formal logic, Frege initially deals with non-natural language like other semantics. Thus, the language of Frege profusely differs from the language of Locke. Locke being a representation realist certainly engaged with natural language, whereas Frege, being a referential semantics, engaged with non-natural language. This makes a huge conceptual difference as far as their understanding of the meaning of language is concerned. However, the debate between Locke and Frege is very interesting and it deserves worthy of philosophical consideration and clarification.

Since Frege began with formal logic, he was completely against psychologist. There is no role of psychology in logic. Simplistically, it can be said that logical language appears against psychology. According to Locke since every word is the sensible mark of Ideas, so the Ideas

must be relevant to the meaning. Frege thinks the other way around. For Frege, Ideas must be irrelevant to meaning because it may perhaps be the case that people having different Ideas of a word have the same meaning of the word under consideration. Thus, Frege, unlike Locke, makes distinction between the *meaning of a word* and *its associated Ideas*. Further as a mathematician, Frege intends to say that there is nothing in mathematics to do with Ideas. In arithmetic we are concerned with numbers; not Ideas of any kind. The same is equally true in the case of aeronautical engineer, who is concerned with Aeroplan's, but certainly not with the Ideas of Aeroplan's. However, we need to assume that words belong to fields of human concern really determines the meaning of a word. Further we need to assume that the basic objects of human concern are not Ideas, but will be concerned with numbers, gardeners with plants etc. Only certain kind of psychologists will be concerned with Ideas. This clearly creates a gulf between Frege and Locke. The concept of Ideas comprehended by Locke in some sense or other rests on psychology; but the concept of thought as conceived by Frege never rests on psychology.

Undoubtedly, Frege offers us a comprehensive account of the problem of meaning. Without entering into the domain of psychology, Frege offers us a fundamental world-oriented conception of meaning. In this regard, Frege inclines to say that words will mean things which are the object. In this regard, it can be said that things make up the world. Here the function of language can be comprehended in two important accounts. First, there develops a theory of language being designed to communicate *thoughts* and secondly, there develops a theory of language being designed to communicate *facts*. When language functions as a theory to design thought, it is primarily concerned *with the concepts of people's mind* and when language functions as a theory to design facts, it is being *concerned with the state of the world*. Thus, there are two accounts of language to describe the content of people's mind as well as the state of the

world. Many referential semantics, such as, Russell, early Wittgenstein, Kripke and referential reductionists have accepted the one and rejected the other. However, in Frege, we find the accommodation of both. That is why Frege's theory of sense and reference has been attributed as the comprehensive theory. This, in fact, gives Frege a distinctive position as far as the development of referential semantic is concerned. Frege goes on to say that language is concerned both with the communication of thoughts and equally concerned with the state of mind. Thus, while anticipating language as the communication of thoughts, Frege does not rule out the relevance of *world-oriented conception of language*. These two approaches of language apparently seem to be incoherent with each other. In fact, referential realists do not agree with Frege and they criticize Frege in this regard. However, these two accounts or interpretations of language actually open up further invitation of some philosophical concepts. One such concept is Context Principle (CP).

Context Principle

It is important to note here that those who talk in favor of logical proper name would like to say that a proper name denotes or refers an object. According to Russell, a logical proper name refers to an object with which we are directly acquainted. Early Wittgenstein says that a name denotes an object and the meaning of the object is the meaning of the name. Even Kripke says that a proper name is a rigid designator which designates the same object in every possible world. For them, proper name has no sense, but only reference. The reference of a proper name makes it meaningful. Thus, there develops two theories of proper name, such as, *no-sense theory of proper name* and *sense theory of proper name*. According to no-sense theory of proper name, the context is irrelevant to determine the meaning of a proper name. Rather the referential assurance of a proper name makes the proper name meaningful.

However, when we read Frege, we find a different interpretation altogether. According to Frege, context principle plays an important role while determining the meaning of a proper name. By introducing context principle, Frege enables to introduce *sense theory of reference*. According to Frege, proper names must have sense without exception. If a proper name lacks sense (mode of presentation) it would no longer be treated as a proper name. The context principle of proper name states that a word in isolation has no meaning. A word can acquire meaning in the real sense of the term only *in the context of a sentence*.²⁰ Alternatively, it can be said after Frege that words have meaning only in the context of a sentence. Thus, Frege with his context principle appears as a proponent of holistic interpretation of meaning where the priority of sentence meaning has been recognized over word meaning. A word in isolation has no meaning. However, a word in normal case contributes to the meaning of sentences in which it occurs. What is the philosophical relevance of context principle? Why does Frege favors it? Why should we accept context principle? Of course, the philosophical implication of introducing context principle is colossal from Frege's point of view. According to Frege, if we do not accept context principle, then we will be driven to think that words mean Ideas. In such as case, Frege would be treated like Locke. As we have seen that Locke claimed that a word is the sensible mark of Ideas. Thus, by incorporating context principle within the realm of referential semantic, Frege differs from Locke. In this regard, Frege says that if we do not contend with context principle, then we have to think that a word has meaning in isolation and the correlation between a word and the idea with which it is associated are distinct in nature. In such a case, it could be run into outside language. Then we have to look at something extra-linguistic to be correlated with every word and in turn we have to look inside the mind as Locke did. Instead of this, if we admit context principle, we can easily avoid this problem because in such a case out point of issue would be *the*

²⁰Frege, *The Foundation of Arithmetic*, trans. J. L. Austin, Oxford: Blackwell, 1980, p.x.

meaning of sentences. The advantage of it is that it would immensely help us to overcome the temptation to think that words have meaning in virtue of the kind of correlation which we notice in Locke.

The other notable importance of context principle is that it would adequately address to the problem of *the unity of sentence*. What problem unity of sentence deals with? Unity of sentence actually finds the problem generated from independently meaningful parts. The context principle tries to overcome this problem by way of considering unity of sentence as basic and the meaning of its parts in some way or other derivative from the meaning of the sentences. But still there remains some visible problem with context principle. It is still not clear how context principle can be true? In fact, Frege while developing his referential semantic in his later writings anticipated a converse principle of context principle in the name of Principle of Compositionality.

Principle of Compositionality (PC)

What then is principle of compositionality according to Frege? The strongest version of PC runs as follows: *The meaning of a grammatical complex form is a compositional function of the meanings of its grammatical constituents.*²¹ In this regard, Frege goes on to say that ‘there is no more to the meaning of a sentence than what is determined by the meanings of the words of which it is composed and the way in which they are arranged’. Principle of Compositionality deals with the most basic facts about language that the meaning of sentences depends on the meaning of their component words. Moreover, Frege considers PC as the core principle of the study of semantics and in this regard, he has been designated as the founder father of PC. One should not confuse here of considering semantics in a non-specific way. It should be kept in mind that semantics has wide varieties. Therefore, when we interpret semantics with regard to

²¹ Cruse, *Meaning in Language*, Oxford University Press, 2000, p.67.

Frege's PC, we have a definite perception in mind. According to Frege, semantics is the systematic explanation of 'how the meaning of words determines the meaning of sentences composed from them'.²² Semantics is the core of analytic philosophy and it is generally associated with the problem of meaning. Again, the problem of meaning is a tricky philosophical issue. When semantics as a branch of philosophy deals with the problem of meaning, it is primarily concerned with the relation between language and the world.

If we carefully go through the definition of PC after Frege, we find various insights. First, it states that the meaning of a complex expression in some sense or other is being determined by the meanings of its constituents. Secondly, it equally assumes that the meaning of a complex expression is completely predictable by general rules from the meanings of its constituents. Thirdly, it leads us to assume that every grammatical constituent has a meaning which in turn combines to the meaning of the whole. The pertinent question then is: what is the rationale behind this principle? It actually hinges on two deeper presuppositions. First, language has an infinite number of grammatical sentences and the second is that language has unlimited expressive power or dispositional power (the illocutionary force according to Austin). On the basis of the dispositional power, speech-acts are being performed. It means anything that can be conceived of can be expressed in language. Thus, there seems nothing problematic in PC as far as determining the meaning of sentences.

Thus, there we find notable distinction between Context Principle and Principle of Compositionality. Context principle says that sentences are basic; whereas Principle of Compositionality says that words are basic. The question then is: How can both be true? We think that both are coherent as far as proving the meaning of language is concerned. According to Morris, sentence is basic in our understanding of the relation between language and what is

²² Morris, *An Introduction to the Philosophy of Language*, op. cit., p.25.

outside language. It is by means of sentence that we can get language to engage with the world. Alternatively, it can be said that the relationship between language and world is made possible by way of understanding the meaning of sentence in proper. In this sense, sentence as part of language is basic. Like sentence, *word is basic in our understanding of the relation between each sentence and the rest of the language to which it belongs*. There is no question of doubt that one can understand the meaning of a sentence just by way of knowing or understanding the meaning of its constituent words. Therefore, whether we do prefer context principle or the principle of compositionality that does not make difference, they are in some sense or other is integrated. Moreover, there are various types of the principle of compositionality and various modes of the same. Truly speaking, the principle of compositionality does not take us very far in understanding how meanings are combined. There are various modes of combinations, such as, *additive modes of combination; interactive modes*. A combination will be said to be *additive* if the meanings of the constituents are simply added together and both survive without radical change in the combination. In *interactive types of combination*, the meaning of at least one constituent is radically modified.

Frege on Sense and Reference

Frege's referential semantics or whole philosophy of language was shaped by his work on logic. In his early work *Begriffsschrift*, which literally means 'concept-script or concept notation', Frege developed logical system in a systematic manner and it appeared and studied as *elementary logic*. As Frege started his referential semantics with the help of concept-script, his understanding of language would certainly be artificial or ideal language. Frege at this stage has chosen logical perfect language instead of natural language like other semantics because of its obvious loopholes and ambiguities. As a founder of elementary logic, Frege put emphasize on

the validity. According to Frege, logic is the study of validity. In logic, an argument is valid if its conclusion is logically followed from its premise/s. Thus, the basic task of any elementary logical system is to know what actually makes an argument valid; how the constituent of an argument, i.e., the premise/s and the conclusion are inter-related; and more importantly whether the conclusion is logically followed from the premise/s or not. Frege then applied the concept of validity in his philosophy of language or referential semantics. Alternatively, it can be said that Frege's whole philosophy of language is guided by the concept of validity that he comes to know from logic. Frege then gives the general form of the validity of an argument. He says that 'an argument is valid if and only if it is impossible for all of its premises to be true and its conclusion is false. This definition of validity opens us or adds new information, i.e., the concept of truth and falsity. Frege here understands the validity of an argument with regard to the truth value of its constituents, i.e., propositions appearing as premise/s and conclusion. Frege, in fact, developed modern elementary logic in two important layers, such as, sentential or propositional logic and predicate logic. The first layer is sentential logic. It is held to be primitive and basic in the sense that other logical systems are being developed on the basis of sentential logic. In this sense, sentential logic is being treated as *First Order Logic*. The next layer of elementary logic is predicate logic which is primarily concerned with arguments based on relations between parts of sentences known as subject and predicate. Thus, at bottom, Frege recognizes two basic kinds of parts of sentences of which one kind consists of words or phrases which refer to particular individual objects known as singular term and Frege called them proper names. The other kind of basic part of sentence is called predicate. What then is a predicate according to Frege? A predicate, Frege asserts, is just the result of removing one or more singular terms from a sentence. Predicate may be monadic or dyadic. Monadic predicate is a one-place predicate and

dyadic predicate is a two-place predicate. For example, 'x was gentle' is a monadic predicate and it is obtained from the sentence 'Radhakrishnan was gentle'. Again, 'x was as gentle as y' is a dyadic predicate and it is obtained from the sentence: Radhakrishnan was gentle as Gandhi. Thus, in the Concept-script, Frege developed a kind of artificial language that would be constituted only by logical proper names and predicates. At this stage, he understood sentence with regard to truth and falsity; he interpreted singular terms with regard to objects which they refer to; he interpreted predicates with regard to difference they make to the truth and falsity of sentences, given any particular choice of singular terms in place of the variables. Simplistically, it can be said after Frege that his whole philosophy of language actually began with the bedrock of elementary logic and the language he presumed in his *Begriffsschrift* (concept notation) was purely logical language comprising singular terms known as proper names and predicates towards achieving logical decisions with regard to truth and falsity in the case of proposition or sentence or validity in the case of an argument.

Two Aspects of Meaning

So far, we are engaging with Frege's early work of his philosophy of language. At his early work, Frege sweepingly used two German words which are deeply riddled with meaning or the problem of meaning. One is 'Bedeutung' a noun form (the verb form is 'bedeuten') which might naturally be translated by the English word 'significance' or 'signification' as well as 'meaning'. The other is 'Sinn', which is naturally translated by 'sense' or 'the mode of presentation'. Thus, it seems to us that Frege has developed two different aspects of meaning. However, his mature account of language has been reflected through *Bedeutung*. *Bedeutung* has two aspects. In one sense he takes it for the purpose of logic and science to some extent and in another sense, he reads it simply equivalent to 'meaning'. Frege finds the relevance of *Bedeutung* particularly in

the case of singular terms because singular terms, according to Frege, refer to objects. Like singular terms, Frege does not expect the same sort of referential implication in predicate and sentences. According to Frege, predicate does not refer to object like singular term; rather a predicate refers **to functions of a particular kind**. The possible values of the function are just truth and falsity and hence meaningful. For example, $x + y$ has the value 5 for the arguments 2 and 3 if you put '2' and '3' in place of 'x' and 'y' in the expression 'x + y'. Frege then called functions of this kind *concepts*. For Frege, predicates stand for *concept-words*. Thus, he understands reference in two different senses. When he says that a proper name being a singular term refers to an object, he in this regard takes the realist position of referential semantics. However, he has certainly be deviated from this position when he understands the reference of predicate with regard to concept and considers predicates as concept words. This, in fact, involves Frege into a peculiar problem and Frege has to pay a lot to overcome this problem. Frege himself gives different philosophical status of two different types of referent. He, in fact, notes grammatical difference between singular terms and predicates. According to Frege, the referents of singular terms are called objects and such referents are complete and saturated. On the contrary, the referents of predicates are concepts and they are incomplete and unsaturated. For example, the referent of the predicate 'x is horse' is the Concept horse. Frege in this regard strictly holds that the Concept horse is not an object; rather it is the referent of a predicate. Further Frege goes on to say that even sentences too have referents. What then are the referents of sentences according to Frege? In this regard, Frege says that **truth-values are the referents of sentences**. This position of Frege again seems to be problematic as it would invite the threat of collapsing the difference between singular terms and sentences.

The question naturally arises: why does Frege anticipate that truth and falsity should really be what matters about the meaning of sentences? In responding to this question, Frege seems to offer two arguments. We have seen that Frege has cognized the word 'Bedeutung' as synonymous to *meaning or significance or sometimes as reference or even as importance*. Thus, in a sense his Context principle is in some sense or other being concerned with Bedeutung. He then quips: Why should it be important for us that a singular term has reference? Why is it so important that there is a real object to which it refers? These questions, of course, are no longer relevant in fiction. Frege's response is that such questions matter because if we do not assert that there is a real object to which a singular term refers, we would no longer be in a position to claim that the sentence in which the singular term is included or is associated with is really true or false. That means the truth or falsity of a sentence in which the singular term is associated with actually hinges on whether the singular term under consideration refers to an object or not. The sentence 'The water bottle is full of water' is true if the proper name or singular term 'the water bottle' associated with the sentence under consideration refers to a real object *bottle*. If the water bottle fails to refer to a real object 'bottle', the question of its fullness simply does not arise. Thus, it can be said after Frege, that the truth or falsity of sentences is important just like the same way as the real existence of the referents of singular terms is. *Thus, there is no problem in saying that truth or falsity is the referents of sentences.*

Secondly, the same can equally be justified with regard to PC. As per as PC is concerned, the meaning of a sentence remains unchanged 'if we swap the words within it for other words whose meaning is the same'. Frege applies this principle to reference as well, of course, in a more ordinary sense. He intends to say that as per PC is concerned only the truth value of sentences as such remain the same even though some component words may be exchanged with regard to

other words. Here again, Frege understands reference with regard to the truth-values of sentences.

Many would say that Frege's theory of reference actually creates a huge gulf between the reference of expressions and what might ordinarily be called their meaning. All true sentences have the same reference affirmatively and all false sentences have the same reference negatively. However, this does not make sense to say that all true sentences or all false sentences have the same meaning. Likewise, if we go through Frege's theory we find that two predicates have the same reference if they are true of the same things. For example, the same creatures have hearts as well as kidneys. Accordingly, it can be said after Frege that the predicates, such as, 'x has a heart' and 'x has a kidney' are true of just the same creature. Accordingly, they have the same reference, but it would be absurd to assume that they have the same meaning. Thus, Frege notes that two or more expressions having different meaning may have the same reference. This actually has prompted Frege to write the celebrated article "Sense and Reference" (Über Sinn and Bedeutung).

Sense Theory and the Problem of Informative Identity Statements

While introducing the notion of sense, Frege at the very outset compares the following two identity statements:

(i) $a = a$

(ii) $a = b$

According to Frege, (i) is obvious and it can be determined as true without thinking. It cannot give us new information. But (ii) is different from (i) in the sense that its truth actually hinges on information. Hence it is treated as informative identity according to Frege. Frege then claims that this sort of informative identity is necessary to determine the same reference of two different

meaningful sentences. For example, the sentence ‘The morning star’ and the sentence ‘The evening star’ have different meaning. The morning star actually means a star that will rise in the morning and the evening star actually means a star that will rise in the evening and thus they express different meaning. Having said this, their referent is the same. Both of these sentences refer to Venus. Those who come to know the fact would like to say that $a = b$. However, those who do not know the information would no longer in a position to know that $a = b$. This would be unlikely in the case of $a = a$. Thus, by introducing the concept of informative identity in the form of $a = b$, Frege actually enables to overcome the problem of meaning. In $a = b$, both ‘a’ and ‘b’ stand for proper names and ‘=’ stands for concept in Frege’s technical sense. Even Frege at times considers semantic complexity in terms of his notion of reference. For him even a large number of arithmetical expressions can be treated as functional expressions. For example, the whole expression of ‘ $2+3+6$ ’ is just that it names the number 11. Accordingly, the number 11 is its referent. The same is applied in other cases as well. Thus, in a sense it can be said that the whole expression contributes to sentences in which it occurs is the object it refers to. The expressions, such as, ‘ $3+3+3$ ’ and ‘ $4+4+1$ ’ refer to the same whole number 9 in different ways. Frege in his early logical work, *Begriffsschrift* (concept-notation), claimed that identity statements were really about the *words involved*. To say that the sentence ‘the morning star’ is identical with sentence ‘The evening star’ or to say that ‘The morning star *is* evening star’ is just to say that the words in the left had the same content (reference) as the words on the right.²³By the term ‘meaning of the words’, Frege means sense (Sinn) and then says that the sense of expressions may be different even though their reference would remain the same as we have seen in the case of ‘the morning star’ and ‘the evening star’.

²³ See Frege, *Begriffsschrift*, Halle, 1879, section 8.

What then is a sense according to Frege? Frege says sense ‘contains’ the way in which the object (in the case of singular terms) is given. Alternatively, it can be said that sense contains the mode of presentation of the referent. The mode of presentation regarding two singular names may be different but their reference would remain the same. Again, consider the following two sentences:

(a) Aphla is the same mountain as Ateb

(b) Aphla is the same mountain as Aphla

In the above, (a) is informative and (b) is obvious. Aphla is a mountain appears from the south and Ateb is a mountain appears from the north. The southern aspect provides one way in which the mountain may be given and the same happens in the northern as well. Thus, the sense or mode of presentation of these two mountains differs from each other, but they actually refer to the same mountain. One might wonder whether the mode of presentation could remain the same in the case of complex singular terms and simple singular terms like ordinary proper names. In this regard, Frege inclines to say that all kinds of linguistic expression could have sense as well as reference. He says that sentences as wholes (PC) had sense and he equally thought that the Senses of sentences are thoughts. Thus, we have many important coins as used by Frege while developing his referential semantics, such as, sense, the mode of presentation, reference, thought, concept, singular term, proper names, predicates, etc. One has to have the clear vision of each of these concepts to know about Frege’s referential semantics. According to Frege, sense or mode of presentation must be possessed by every linguistic expression used as proper names (singular or complex, simple or logical). **The Sense expressed by a sentence is the thought.** Thus, in Frege’s sense thought is independent from language and we think this position actually goes against later Wittgenstein who vehemently denies the possibility of private language. In fact,

those who admit the possibility of private language would like to say that thought has its independent locus beyond language. Thought is being expressed by means of language, in Frege's sense, through sense or mode of presentation. Two persons have the same thought of an object, but when they express their thought by means of language their mode of presentation would be different. However, different mode of presentation of two different persons regarding an object may not lead to two different referents of the object under consideration. This is where the relevance of PC.

It seems that Frege's notion of sense is defined in terms of informativeness²⁴ what has been characterized by Gareth Evans as the *Intuitive Criterion of Difference*. Evan in this regard says, "The thought associated with one sentence S must be different from the thought associated with another sentence S' as its sense, if it is possible for someone to understand both sentences at a given time while coherently taking different attitudes towards them, i.e., accepting (rejecting) one while rejecting (accepting) , or being agnostic about, the other."²⁵Frege's concept of sense not only offers us a solution of the problem of informative identity statements, it also addresses two other problems. First, it enables to overcome the problem about sentences containing singular terms which do not refer to any real thing. That means it offers us a solution of the problem of empty proper name. According to Frege, the complex singular terms, such as, 'the least rapidly converging series' does not refer anything because there is no such thing. However, it has sense. Likewise, in the case of sentence containing fictional name, e.g., 'Odysseus was set ashore at Ithaca while sound asleep', the name Odysseus does not refer to any real thing and hence it lacks reference. If the name has no reference, the sentence as a whole can have no reference either. Having said this, it is meaningful in some sense or other because reading the

²⁴ See Frege, 'Über Sin and Bedeutung', p.32.

²⁵ Evans, *The Varieties of Reference*, Oxford University Press, 1982, p.19.

Odyssey is not wholly an empty exercise. According to Frege, the name Odysseus has sense, but no reference. The sentence as a whole expresses a thought even though it has no truth-value.

By the term sense of a proper name (sign), Frege explicitly means the mode of presentation in which the referent is given. Of course, there is no point of saying that referent is given if there is no referent at all. Rather we can make sense of a way of specifying a referent if there is one. This is the nature of understanding of *mode of presentation*. The other problem Frege uses the notion of sense to solve is the problem arising out of offering semantics for ordinary languages. The semantic theory for a language is a systemic account of how the meaning of sentences in that language depends on the meaning of their parts. The latter part of 'Über Sin und Bedeutung' was primarily concerned with the semantic account of ordinary languages which contain for reporting speech, for describing thoughts and feelings of people, etc. what Frege termed as *indirect contexts*.