Chapter Two

Sense and Reference as the Criterion of Meaning

In the previous sequel, I have outlined, after Frege, the concept of the proper name as well as its philosophical implication and dimensional notation, and impact on post-Fregean tradition. Frege conceives the concept of the proper name as *singular terms*. It should be pointed out here that the concept of singular term alternatively amplified as a proper name in the arena of philosophy of language in general and semantics, in particular, has played a significant role. Frege initially was predisposed by logic and elementary mathematics and on the basis of this background, he developed 'Concept-Notation' (*Begriffsschrift*). The items of his 'Concept-Notation' are singular terms alternatively known as proper names. To me, it is a general perception prevailing among the whole host of semanticists that the vocabulary of formal language is nothing but singular terms containing names and descriptions. However, the very nature of names and descriptions still remains problematic even today. We have seen in the previous sequel that Frege himself was in a turmoil state of mind about the dimension and the philosophical implication of the proper name. However, there is no question of doubt that as a father of modern philosophers, Fregean semantics notes a multi-dimensional impact on post-Fregean thinkers.

In this sequel, our strategy is to explain and outline the Fregean insightful article 'On Sense and Meaning' ('Uber Siṅṅ and Bedeutung', 1892). The terms *sense* and *meaning* have many synonymous notations. It is at par with denotation and connotation, de re and de dicto, extension, and intension (Carnap). Frege himself uses the term *sense* with regard to 'mode of presentation'. The German word 'Bedeutung' stands for reference

and the German word 'Uber Sinn' stands for *sense* or mode of presentation. In the older translation, it was translated as *nominatum* or occasionally translated as denotation. It means 'meaning'. It should be kept in mind that the sense or mode of presentation of a proper name is not at par with the *meaning.* Thus in my sense, 'On Sense and Meaning' is at par with 'On Sense and Denotation'. It is further noted that Frege uses *Bedeutung* with its ordinary meaning of 'meaning' currently uses as *reference*. However, Frege, I do reckon, uses the term *Bedeutung* in a somewhat wider sense from how *reference* is typically used. Fregean understanding of reference is more like *semantic value.*

The main objective of Frege's 'On Sense and Reference' is primarily concerned with the question of how the sense (mode of presentation) of a sign (name) is related to the meaning (reference) which is expressed by the sign. In this regard, Frege deeply engages with the question of how the object which is designated by a sign is related to the meaning which is expressed by the sign. Interestingly, Frege subscribes that changes in the sense or mode of presentation of a sign may change the meaning of the sign. He then describes how changes in the sense of a sign may also change the sense of the presentation in which the sign is contained. Thus the prologue of this sequel is to develop the relation between sense and reference and the relation between significance and meaning after Frege.

There is no question of doubt that Frege's article brings a philosophical message in order to address and overcome two philosophical puzzles, namely, the puzzle concerning the identity and the puzzle concerning empty proper names.

Let me explain each of these puzzles in turn.

2.1: The Puzzle of Identity:

Long back Leibniz had introduced the concept of identity in the name of the *Principle of Indiscernible*. This principle of identity known as the Principle of Indiscernible was in the form of a=a. It means that everything is identical to itself. But this principle of identity appears inadequate later in the tradition of philosophy of language. Within the sphere of language, it appears that two or more sentences having different meanings (senses) may have the same referent. This problem cannot be solved by the Principle of Indiscernible. Frege's 'On Sense and Meaning' appears as a solution to resolve this puzzle. By bringing the concept of informative identity, Frege gives an adequate solution to this puzzle. Before illuminating the puzzle, let me explain Frege's concept of sense and reference by citing examples.

By the term 'sense', Frege means the *mode of presentation* or the meaning of the sentence. Let me clarify it by citing the example, 'the morning star' and 'the evening star'. 'The morning star' is an expression and 'the evening star' is an expression. The meaning or sense or mode of presentation of these expressions are different. The expression 'the morning star' means a star rising in the morning and the expression 'the evening star' means the star rising in the evening. Therefore, the sense or meaning of these expressions is distinctly different. But their reference is the same. Both of these sentences refer to the same object, namely, 'Venus'. Thus, it appears problematic to the semanticists because the concept of identity available to them before the appearance of 'On sense and Meaning' fail to explain this concept. Frege introduced the relation of informative identity expressed in the form of 'a=b'. A sentence of the form 'a=b' is informative in the sense that even though the meaning of 'a' and 'b' are different just

like 'the morning star' and 'the evening star', they refer to the same object just like 'Venus'. It is informative in the sense that if we do not know the fact what 'a' stands for and what 'b' stands for we are no longer in a position to say that a=b. Likewise, if we do not know the reference of the morning star as well as the reference of the evening star, we are no longer in a position to say that each of them refers to the object Venus. Thus Fregean informative identity expressed in the form of 'a=b' differs from the Leibnizian principle of Indiscernible expressed in the form of 'a=a' in the sense that they have different cognitive meanings. The former is informative and the latter is obvious. The former is based on the matter of discovery, the latter is not based on the matter of discovery.

The sense of an expression has been explained as that ingredient of its meaning which is relevant to the determination of the truth or falsity of a sentence in which it occurs. Thus in a strict sense, sense or mode of presentation is not the same as meaning. In our sense, the meaning of the sentence and the sense of the sentence is different in nature. The meaning of the sentence is deeply associated with truth whereas the sense of the sentence is the ingredient of the meaning. Fregean semantics is primarily associated with *the semantic value of the expression.*[33] According to Michael Dummett, many philosophers are often confused by considering the sense of the sentence very similar to the meaning of the sentence. One might say that the meaning of a sentence cannot by itself determine its truth or falsity at least in a general sense. Hence for them, the sense of the words can determine only the conditions for its truth and not its truth-value. The condition of truth leads to the truth which is the essence of semantic value. However,

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[33] Dummett, Michael, *Truth and Other Enigmas*, Duckworth: London, 1978, p. 21.

truth is not at par with the condition of truth-value. According to Dummett, the semantic value of an expression was so explained that the semantic value of words composing a sentence will together determine it as true or false. When it is assumed that the contribution of extra-linguistic reality is being taken into account, the notion of semantic value depends upon the assumption of the fundamental principle of semantics. Thus, it seems to us that the sense or mode of presentation of words or expression plays an important role in Fregean semantics to provide the ingredient of meaning or truth.

Now let us spell out the importance of sense with regard to the puzzle of identity.

At the very outset of sense and reference, identity gives rise to a challenging question. The puzzle raised by the identity sentence is that even though 'the morning star' and 'the evening star' have the same reference – the planet Venus, the sense of the sentence 'The morning star is the morning star' and 'The morning star is the evening star' are quite different. The first sentence is self-referential and very obvious to all without exception. Whereas the second sentence is informative and it may be true to one, may be false to one, and even may be unknown to one. They seem, as Frege says, to differ in cognitive value. The first sentence is trivial and a priori and the second one seems a posteriori and could express a valuable extension of knowledge. According to Frege, the second one expresses an astronomical discovery that took substantial empirical work to make. While outlining the distinction between these two sentences, Frege in his *Begriffsschrift* (Concept-Notation) remarks, "Equality of content differs from conditionality and negation by relating to names, not to contents. Elsewhere, signs are mere proxies for their content, and thus any phrase they occur in just expresses a relation between their various contents; but names at once appear in propria persona so soon as

they are joined by the symbol for equality of content; for this signifies the circumstance of two names' having the same content. Thus, along with the introduction of a symbol for equality of content, all symbols are necessarily given a double meaning – the same symbols stand now for their own content, now for themselves".[34] Frege in his *Begriffsschrift* assumed that the cognitive value of a=a becomes essentially equal to that of a=b provided that a=b is true. Thus, a difference can only arise if the difference between the signs corresponds to a difference in the mode of presentation of that which is designated. Frege understands a sign at par with a name or combination of words or later. The sign refers to what may be called the reference of the sign. For Frege, the reference of 'Evening Star' would be the same as 'Morning Star' but not the sense.[35]

It seems to us that Frege takes the puzzle of identity to pose a problem for the view that *identity is a relation.* For if a=b is true a is b. How can the two sides of the statement of identity differ in a way that is compatible with informativeness? If identity is a relation between objects, it seems that only the objects named by 'a' and 'b' can be relevant to the informativeness of the statement. But then if *a is b* how can it differ in *cognitive value* from a=a? Previously, Frege took this as indicating that a statement of identity which is *not a statement of a relation between objects, but a statement of a relation between names of objects.* Thus it seems as if this might yield a solution to the puzzle of identity, then different signs appear on the two sides of 'a=b'. Whereas the same sign

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[34] See Frege, Gottlob, 'Conceptual Notation. A Formula Language of Pure Thought'*, in Conceptual Notation and Related Articles*, ed. by T. W. Bynum, Oxford, 1972.

[35] Frege, Gottlob, *Nachgelassene Schriften*, ed. by H. Hermes, F. Kambartel, F. Kaulbach, Hamburg, 1969, p. 57.

appears on the two sides of 'a=a'. In the sentence 'a=b', there are two signs, such as, 'a' and 'b' whereas in the identical sentence 'a=a' there is only one sign, namely, 'a'.

Now, Frege says that he no longer intends to take this view, for if 'a=b' were merely a statement about the names 'a' and 'b', it would then express no proper knowledge because nobody can be forbidden to use any arbitrarily producible event or object as a sign for something. It is possible to see what Frege is getting it. If 'a=b' is a statement about the names 'a' and 'b', it can only mean that there is something that is named both 'a' and 'b'. But if this is not true, then one can make it true simply by stipulating that henceforth one will use 'b' as a name for 'a'. Then it will be true that there is something named both 'a' and 'b'. But what was originally claimed is that 'a=b' could not be made true by such a stipulation, since this was not merely that the signs 'a' and 'b' designated the same object, but contrary to Frege's earlier view, a claim about the object themselves. So the puzzle of identity as to *how it can be both true and informative.* One may say that Frege's argument that the puzzle of identity could not possibly be explained by differences between the signs flanking the identity symbol considered. Here Frege remarks that it is only as objects, not as signs. Such a difference is neither necessary nor sufficient for a true identity statement to be informative.

It thus seems that the puzzle of identity is generated by the fact that such a statement can be *informative* and that such statements need not be *analytic or a priori*. In this regard, Frege subscribes that it may often contain every valuable *extension of our knowledge.* The problem so far we reveal here is that if identity is a relation between objects, then in such a case it looks as if 'Hesperus is Phosphorus' (a=b) and 'Hesperus is Hesperus' (a=a) assert that exactly the same relation obtains a relation between Venus

and itself. Here, the former is informative, whereas the latter is non-informative. So the problem is: how can the former be informative and the latter a mere instance of the law of identity? How can one have a different *cognitive value* from the other? Frege himself once held in his *Begriffsschrift* that identity was not a relation between objects as it appears to be the case. If identity was taken as a relation between objects then we involve in a puzzle. Frege reveals it very well. Instead of conceiving identity as not a relation between objects, he conceives that identity is a relation between names. Thus we can say, after Frege, that 'Hesperus is Phosphorus' (a=b) was supposed to mean something like the names 'Hesperus' and 'Phosphorus' has the same denotation. However, one thing should be kept in mind Frege here understands the relationship between a name and its bearer in an *arbitrary* or conventional sense by bringing his very idea of thought. Still, we are not sure enough what actually prompted Frege to bring the problem of identity in the case of the Principle of Indiscernible expounded long back by Leibniz. It seems clear to me that Frege faces a problem to accommodate two sentences having different senses but the same reference under the realm of the Leibnizian Principle of Indiscernible. But Frege's own interpretation of the theory of identity needs further clarification to illuminate his underlying intention of the same. This issue is particularly relevant here to move further. Indeed Frege's theory of identity appears in his *Begriffsschrift* and has been criticized by many contemporary semanticists. At least three charges have been raised regarding the same. First, it has been alleged that the information contained in an identity statement that appears in the *Begriffsschrift* can only be the trivial information that the linguistic community has adopted. Linsky (1967) and Kneale and Kneale (1962) expressed serious doubt about

the substantial information associated with the informative identity (such as a=a). For them, the substantial information embodied in a genuine discovery about the world is often susceptible. Secondly, it has been alleged that the *Begriffsschrift* theory is circular or that it involves a vicious infinite regress. This charge has been raised by Russell (1903b), Wiggins (1905), Kneale, and Kneale (1962). For them, the very dimension of informative identity may have an indefinite and unidentifiable application that perhaps would vitiate the sanctity of identity as such. Thirdly, it has been alleged that the *Begriffsschrift* is flawed by use-mention confusion. This is a popular charge that has been raised mostly by the pragmatists against the semanticists. In this regard, I do refer to the charge raised by P. F. Strawson against Russell. In a very similar way, Church (1951) criticizes Frege.

2.2: The Notion/Understanding of Conceptual Content (*Begrifflichen Inhalt*):

We think that the above charges cannot be adequately sorted out after Frege so long we do not explicate the conceptual content of the underlying identity statement. In chapter eight of *Begriffsschrift*, Frege defines the *identity of content* as follows: ' ├A=B' means that 'the symbol A and the symbol B have the same conceptual content so that A can always be replaced by B and conversely'.[36] Here, the symbol for the identity of content '≡' was part of the object language. It represents a relation that holds between expressions instead of their content. In this regard, Frege says, "Whilst elsewhere symbols simply represent their contents, so that each combination into which they enter merely expresses a relation between their contents, they at once stand for themselves as

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[36] Frege, Gottlob, *Begriffsschrift*, 1879, p. 64.

soon as they are combined by the symbol for the identity of content; for this signifies (*bezeichnet*) the circumstance that two names have the same content".[37] Critics find systematic ambiguity in Fregean names appears in *Begriffsschrift.* Frege elsewhere claims that the identity of content alone among the logical constants relates to expressions but he fails to provide adequate justification in supporting his claim. In fact, this was not his primary concern. His primary concern is to justify the term relation appears in *Begriffsschrift*. In fact, Frege chooses to take the identity of content as a relation between expressions to deal with the *Paradox of identity.* So he must hold a substitution principle to account for the cognitive content of identities. According to Frege, syntactically '$\equiv$' is indistinguishable from '='. Informally, the identity of content appears to be no different from identity. For Frege, 'X$\equiv$Y' means that X is the same number as Y. Frege then asserts that singular terms are said to have conceptual content. This is not only the Fregean affirmation. Almost all semanticists and logicians believe that singular terms do not lack conceptual content. We noticed it in elementary predicate logic where we apply Universal Instantiation (UI) and Existential Instantiation (EI) on universal and particular propositions respectively concerning singular terms. Such singular terms are designated either as individual constants (a-w) or as individual variables (x,y,z). They are singular terms either designating a concrete non-ambiguous individual/object or an unidentified individual name or object. But they do not lack conceptual content. Frege uses '$\equiv$' to express the circumstance that two sentences have

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[37] Ibid, p. 64.

the same conceptual content and each of them may be replaced either by singular terms or by sentences.

Frege further contends that if α and β have the same *conceptual content* then Sα and Sα/β have the same conceptual content. Earlier on we stated after Frege that 'A≡B' means 'A can always be replaced by B and conversely'. Here, the replacement always preserves *conceptual content*. As the replacement or substitution preserves conceptual content, it would *ipso-facto* preserve the same truth-value. Accordingly, we can say that if {('A≡B' and 'B≡C') → 'A≡C'}. This reminds us that the principle of identity, whether obvious or informative will always be reflexive, symmetric as well as transitive. Here Frege claims when α and β are both singular terms, α≡β appears to have the same truth-condition as α=ß. Here α and ß stand for the same object. However, we are yet to clarify what the sameness of conceptual content amounts to when α and β are both sentences.

Let me explain the semantic theory Frege held in *Begriffsschrift*. According to this theory, a sentence stands for its content (*Inhalt*). This is understood to be a thought. That means, to know the content of the sentence is to know the sense of the sentence with a thought. This is where the relevance of sense/reference distinction actually hinges. According to Frege, it is more like a state of affairs or a circumstance something could be obtained. The sentence stands for its content. It is a proxy for its content. Accordingly, the parts of the sentence stand for corresponding parts of the content of the sentence. The resulting sentence should have the same content as the original. Only that portion of the content of a sentence that counted for inference is what Frege calls the *conceptual content* (*Begrifflichen Inhalt*) of the sentence. Frege says, "Note that the

contents of two judgments can differ in two ways: either the conclusions that can be drawn from one when combined with certain others also always follow from the second when combined with the same judgments, or else this is not the case. The two propositions 'At Plataea, the Greeks defeated the Persians' and 'At Plataea, the Persians were defeated by the Greeks' differ firstly. Even if a slight difference in the sense can be discerned, the agreement predominates. Now I call that part of the content that is the *same* in both the *conceptual content*. Since *only this* has significance for the *Begriffsschrift*, no distinction is needed between propositions that have the same conceptual content".[38]

It thus seems to me that Frege here attempts to find out the sameness of conceptual content in additional premises. Before Frege, the concept of identity is not associated with additional premise/s. The Leibnizian principle of identity is confined to the name itself or object itself. He discovered the principle of identity of indiscernible in the form of a=a. But in Frege, we are talking of a=b just by adding an additional premise namely 'b' with regard to 'a' based on the sameness of conceptual content. When we say that a=b, after Frege, we can *ipso-facto* claim that one is inferable from the other without vitiating truth-value. Of course, the condition for sameness of conceptual content applies only to a "possible content of judgment (*beurtheilbar Inhalt*)" associated with the declarative sentence. Frege in his *Begriffsschrift* explicitly stipulated the conditions under which two singular terms *were to have* the same conceptual content. According to Frege, two singular terms having the same conceptual content have designated the same object. This clearly suggests that he brings the concept of conceptual content with

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[38] Ibid, p. 53.

regard to a singular term that designates an identified object. Accordingly, we can subscribe, after Frege, that two singular terms having the same conceptual content may replace one with another in a given sentence having the same conceptual content as the original. This position is stated with the principle as follows:

If Sα is about r (α), then if r (α) = r (β) then Sα has the same conceptual content as Sα/β.

2.3: Cognitive Value and Conceptual Content:

The question then is in what sense does conceptual content differs from cognitive value? Is there any relationship between conceptual content and cognitive value? In what sense does a=a lack cognitive value? Does a=a have conceptual content as well as cognitive value? In response to these questions, we can say that the Leibnizian principle of identity appeared in the form of a=a lacks conceptual content and cognitive value as well. What is obvious without exception cannot have conceptual content and cognitive value. Here, I can refer to Ludwig Wittgenstein who in his book, *Tractatus Logico-Philosophicus* says that tautologies and self-contradictories say nothing. Similarly, the Leibnizian principle of identity, to my mind, says nothing. It is obvious without seeking any justification and clarification. Its truth value is not the by-product of our mental construction. On the other hand, Fregean informative identity has cognitive value because it is directly associated with *conceptual content*. So I do reckon that Fregean identification of sense and reference associated with informative identity is based on the philosophical background of conceptual content. Frege has been regarded as a conceptualist like so many other semanticists. But conceptualism again is a debatable issue. Somebody says in favor of a unified core of conceptual scheme while somebody

other has asserted just the opposite. Kant, for example, in his *Critique of Pure Reason* talks in favor of categories of understanding based on which a unified core of conceptual scheme has been developed. Following Kant, P. F. Strawson in his book, *Individuals* talks in favor of a unified core conceptual scheme based on which successful communication between the speaker and the hearer is made possible while identifying the particulars of the world. Thus, we have a strong philosophical background of conceptualism adequately documented in Kant's philosophy followed by Strawson, and alternatively and in different senses expounded by Quine, Davidson, and others. Here in Frege, we noticed conceptual content based on which the cognitive value of the informative identity appears in the form of a=b is justified. Besides, it is also important to note here how the conceptual content associated with a singular term, such as, 'a' as well as 'b' can equally be overlapped in their composite form as stated previously (If Sα is about r (α), then if r (α) = r (β), then Sα has the same conceptual content as Sα/β). Conceptual content is a sort of intuitive notion of the content of a sentence eventually extended to a function of argument structure. But critics are very often sceptical about the substantiality of Fregean conceptual content upon which cognitive value depends. For them, it would perhaps be the case that singular terms having the same conceptual content in a sentence did not have the same conceptual content as the original. This divergence is made possible because of various conceptual schemes advocated by various linguistic philosophers.

Thus, for Frege 'a=a' is logically true whereas 'a=b' is contingently true. Even though they could not have the same conceptual content but they may have the same conceptual content. Two names have the same conceptual content if both of them say of the same

object that they stand in the same relation. But still, we can say that 'a=a' and 'a=b' are different because the former is logically true where conceptual content plays no role and the latter is contingently true where conceptual content plays an important role. As a result of that, they could not be mutually inferable. Frege, in fact, subscribes to this problem as purely logical to identity by way of reinterpreting identity as a relation between expressions. However, he does not consider a=b as a relation between expressions. Thus for Frege, the content of the logically true identity differs from that of the contingently true identity. This is how Frege subscribes to his own semantic framework. According to Frege, the identity of relation is not associated with thought whereas the identity of conceptual content is deeply entangled with thought-process. It is 'a formula language of pure thought'.[39] As Frege's semantics is based on his *Concept-Notation* (*Begriffsschrift*), he understands the concept of identity with regard to conceptual content where the language of pure thought has a significant role to play. Thus for Frege, 'a=a' and 'a=b' differ in conceptual content only because of what now appears to be the pure *ad hoc* device of having 'a' and 'b' stand for themselves. The information thus obtained is of very limited applicability. As Frege gives importance to the formula language of pure thought, he does not make any difference between the active and passive voices of the same sentence. According to Frege, the active and passive pair of the same sentence does not make any difference in conceptual content level. That means the conceptual content of a sentence expressed in the active voice would remain the same if the same sentence is expressed in the passive voice. Thus, Frege ignores this grammatical distinction in his *Begriffsschrift* and symbolizes each in

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[39] Mendelsohn, Richard L., *The Philosophy of Gottlob Frege*, Cambridge University Press: USA, 2005, p. 45.

the same way. This philosophical position of Frege actually goes against a well-established philosophical commitment that "names are meaningless marks, arbitrarily chosen labels or tags that simply stand for objects but otherwise carry no meaning".[40] It is just this assumption that Frege rejected in *Begriffsschrift*. Frege urges that different names for the same content are not always just a trivial matter of formulation, but touch the very heart of the matter if they are connected with different modes of determination. Frege illustrated it like the following: Fix a point 'A' lying on the circumference of a given circle and pass a straight line through 'A', extending the line so that it intersects with the circle. This point of intersection, which we call 'B', obviously depends upon the position of the straight line, so that as the line is rotated about A, B varies accordingly. This clearly reflects the insight of the Fregean descriptive semantic based on sense and reference. So far we have seen that the distinction between sense and reference is immanent to solve the problem of identity or to resolve the puzzle of identity. We have observed that the puzzle of identity is that a proposition asserting identity can be both true and informative. This demand for meaning makes the principle of identity contextual and Frege himself claims the credit for it. The Fregean resolution of the puzzle, as we observe, appealing to the sense-reference distinction, is that a proposition asserting identity will be true if the singular terms flanking the sign of identity have the same reference, but will be *informative* if the terms have different senses – different ways of determining the common reference as Frege illuminated in his celebrated article 'On Sense and Meaning'. Of course, Frege while establishing the position of 'sense and reference' looked back to his earlier discussion in *Concept-*

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[40] Ibid, p. 46.

Notation (*Begriffsschrift*). It helps to determine the content of the sense of the term under discussion. Frege in this regard involves a tripartite distinction between (a) a sign, (b) its content, and (c) a way of determining that content. Such tripartite distinction located in *Concept –Notation* profusely helped Frege to design an identity proposition. Further, we have also seen that Frege takes the puzzle of identity to pose a problem for the view that identity is a relation. The advantage of conceiving identity as a relation is that it can help to develop informativeness of the statement consisting of 'a' and 'b' expressed in the form of a=b. Further, Frege previously took this as indicating that a statement of identity was not a statement of a relation between objects, but a statement of a relation between *names of objects.* Now he says that he no longer wishes to take this view, for if 'a=b' were merely a statement of the names 'a' and 'b', it would express no proper knowledge simply because nobody can be forbidden to use any arbitrarily producible event as a sign for something. Thus we may conclude, after Frege, by saying that an identity statement can be informative whether or not the sign on the left side i.e., in our case 'a' is the same as the sign on the right side i.e., in our case 'b' when we use 'a=b'. Here, *neither the sign (name) nor the reference (what name denotes) is crucial. What is crucial is the sense, i.e., the mode of presentation of the reference*.

Based on the above observation regarding the puzzle of identity, we can sum up the following -

(a) 'The Evening Star = The Evening Star' and 'The Evening Star = The Morning star' differ in cognitive value (the puzzle of identity).

(b) The sense of 'The Evening Star = The Evening Star' is not the same as the sense of 'The Evening Star = The Morning Star'.

(c) The sense of 'The Evening Star' is not the same as the sense of 'The Morning Star'.

(d) The reference to 'The Evening Star' is the same as the reference to 'The Morning Star'.

(e) The sense of 'The Evening Star' is not the same as the reference of 'The Evening Star' (*mutatis mutandis* for 'The Morning Star').

2.4: The Puzzle of Empty Proper Name:

The concept of an empty proper name is a knotty problem of philosophy in general and within the realm of semantics in particular. It is a general perception particularly to the realists or those who have a firm foothold on real objects that we can talk of only those objects which we can experience through our senses or that we can verify within the spatio-temporal framework. Metaphysicians in the past were deeply involved with such noumenal objects where our sense-experience is ineffable to reach up to that. Metaphysicians were comfortable in doing such a philosophy. This actually created a bundle of philosophical problems in the name of the so-called *traditional philosophical problems* for which linguistic revolution or linguistic turn during the first half of the 19th century appeared. There is nothing exaggeration in claiming that metaphysics in general was the targeting point of the linguistic revolution. Metaphysics has been rejected as a meaningless entity for being incapable of expressing them in the sense of truth and falsity. The theme of linguistic revolution is primarily based on the philosophical assumption that all traditional philosophical problems were endangered due to the misinterpretation of language or failure to understand the logic of language.

This is all about history. We anticipated linguistic revolution and under the womb of linguistic revolution we are enquiring that the semantic proposal of language was proper to name as such in different senses are taken to be the legitimate vocabulary of a constructed language. This was the proposal of semanticists in general. But ironically semanticists in general are not free from the duplicity of the interpretation of proper names. It is a matter of history that under the sphere of semantics there are much interpretation of proper names and interestingly every interpretation of proper name was made based on a conscious effort to overcome the problem of empty proper names.

If we go through the literature on proper names within the sphere of semanticists, we will find that there develop two different senses of proper names of which one is philosophically recognized as the sense theory of proper name and the other is philosophically recognized as the no-sense theory of proper name. Those who advocate the sense-theory of proper names would give importance to the sense or meaning or mode of presentation of the proper name. On the contrary, those who give importance to the no-sense theory of proper names give importance to the reference of the proper name. For them, reference alone is the main concern of a proper name. They boil down the possibility of an empty proper name. What I intend to say here is that even the semanticists in general were or are conscious of the philosophical implications of the concept of proper names and they were involved in a tug of war regarding the concept of proper names. Even some pragmatists, for example, Strawson in particular were highly against saying something in favor of empty proper names. For them, we can talk of only those objects having existential import or which are real. How can we talk of an object bearing a proper name having no existential import at all? How can we talk of an

object, for example, the round square, which is conceptually inconceivable? How can we talk of an object, for example, a unicorn, which is purely imaginary? All these objects just cited have an independent proper name. For example, the unicorn, golden mountain, round square, etc. are taken as proper names even by the semanticists. In the Fregean sense, each of these objects has a sense or mode of presentation.

Our question is that where lies the logical problem of admitting an empty proper name under the realm of semantics? This is the problem we will first deal with and then will enter into the Fregean position of the problem and the solution of an empty proper name.

The problem of an empty proper name is linked with the concept of negative existentials. It is indeed a serious ontological problem. The problem actually hinges on the distinction between object and concept. Realists or empiricists from Locke onwards confined themselves within the object occupying space and time. On the other hand, there is also a forceful theory where the identification of objects is made possible through concepts. This is where the problem of negative existentials is located. The problem of negative existentials arises when an attempt would be made to recognize objects non-existential objects in the realm of philosophical discussion. The question is: how do we talk of an object having no real existence? Can we talk of an object whose existence is a far cry? Many would say we cannot and many others would say that we can. Thus the problem arises. Those who admit that we cannot talk of the non-existential object would like to say that to talk of an empty proper name is to involve conceptually into logical inconsistency or logical contradiction. For them, to say that "The golden mountain does not exist" is to presuppose beforehand that "There is at least one golden mountain". For them, to talk of any object whatsoever, we cannot rule out the *existential*

import of the object under consideration. Simplistically, how can we talk of an object having no existential import in the real sense of the term. According to P. F. Strawson, it would be simply a pointless or bogus issue to talk of the non-existential object. Summarily, it can be said that to talk of a non-existential object is to involve in a contradiction. The contradiction is as follows-

To talk of the golden mountain does not exist, we have to pre-suppose that there is -

'At least one golden mountain'.

This entails the sentence:

There is at least one golden mountain such that it does not exist.

This is a plain logical contradiction. It is in the form of P. ~P. Thus the problem of negative existentials arises.

To overcome this problem of negative existentials, there are some philosophers, such as Meinong and Russell who came forward to address the issue. Their views in some sense or other go in favor of Frege. Let me explain, in brief, Meinong's and Russell's interpretation of Negative existentials.

2.5: Meinong's View of Negative Existentials:

Meinong in his article 'Object' took a radical philosophical interpretation in favor of admitting non-existential objects into our ontology. Meinong was an absolute ontologist. According to Meinong, it is simply philosophers' prejudice that to talk of an object one has to presuppose beforehand that the object under consideration must be a

real object. According to Meinong, we can talk of any object whatsoever, real or unreal, not based on their existence, but based on the 'concept' or 'logical being'. Meinong here distinguishes between real and unreal objects by bringing the concept 'subsistence'. According to Meinong, a real object exists and an unreal object *subsists*. Thus by bringing the concept of subsistence, Meinong thus incorporates non-existential objects into our ontology. According to Meinong, there are three different levels of an object, such as the empirical level, the metaphysical level, and the ontological level. For example, when we talk of an object, such as, 'The table is made up of wood', the name 'table' belongs to the empirical level occupying space; 'the being of the table' belongs to the metaphysical level. It deals with *being-qua being*. It is called an ideal object. The metaphysical level, which deals with *being-qua-being*, is higher than the empirical level according to Meinong. The third level is the ontological level which goes beyond the metaphysical level as it is neither being nor non-being, it deals with the 'table as such'.

Based on that Meinong claims that we can talk of a non-existential object because our talking of a non-existential object is not at all associated with existence, philosophers are talking of rather our talking of non-existential object is based on the concept of logical being actually originated from a pure object located in the ontological level.

2.6: Russell's Interpretation of Negative Existentials:

Initially, Bertrand Russell was the proponent of Meinong regarding the problem of negative existentials. But after the publication of his *theory of definite description*, Russell gives a new interpretation of negative existentials. According to Russell, philosophical analysis is acceptable based on the criterion of meaningfulness. In this regard, Russell stands the philosophical position of logical positivism. However,

Russell through his theory of definite description offers us an innovative interpretation of the problem of negative existentials. According to Russell, every sentence expressed in the form of 'the-so-and-so' must be meaningful whether it is associated with a real or unreal object. Let me explain this by citing an example after Russell. The sentence:

'The golden mountain is beautiful'

is in the form of 'the-so-and-so'. Accordingly, the sentence under consideration, according to Russell, must be meaningful even though the object as expressed by the name 'golden mountain' does not exist. The original sentence is logically analysed as:

(i)   There is at least one golden mountain, such that…

(ii)   There is at most one golden mountain, such that…

(iii)   There is exactly one golden mountain, such that…

According to Russell, the original sentence is the conjunction of (i), (ii), and (iii). (i) is false because there is no golden mountain. Accordingly, the conjunction of (i), (ii), and (iii) is false. Accordingly, the original sentence is false. What is false is meaningful. Accordingly, the original sentence is meaningful. This is how Russell shows that any empty proper name which is expressed in the form of 'the-so-and-so' through a sentence must be meaningful.

2.7: Fregean Interpretation of the Problem of an Empty Proper Name:

Based on the above background, let me explain Fregean interpretation of the problem of empty proper names broadly coming under the purview of negative existentials. Like Russell, Frege also attempts to solve the problem of an empty proper name. I have already outlined the view of Meinong as well as Russell. Meinong has been regarded as

an absolute ontologist and from the ontological perspective, he defends the relevance of non-existential objects. Russell from a semantic perspective subscribes that empty proper names can be comprehended as logically meaningful. In my sense, the position of Russell has close proximity to Frege, because both Frege and Russell offer us a descriptive account of naming theory. However, Frege's attempts, to me, are altogether different from Russell's. Frege takes the mode of presentation of the proper name as the lone criterion to incorporate the reference (loose sense of reference) of empty proper names. At the very outset, Frege sticks to his general principle that the fundamental characteristic of a proper name is to have its sense or mode of presentation. By the term mode of presentation, Frege actually means to say that the mode of presentation of a proper name is nothing but the way of representing it in various sets up of language.

While talking of empty proper names, we have to dig out Fregean senses of reference. Reference is the inevitable content of a proper name. Frege himself uses the twin concept in his article 'On Sense and Meaning (reference)'. He understands reference with regard to meaning. Here meaning is understood with regard to truth. What I intend to say here is that sense is inevitably linked with reference. According to Frege, there are different types of reference, such as direct reference and indirect reference. His understanding of direct reference is not at all problematic to Frege and others. But he brings the concept of *indirect reference* in order to accommodate the concept of empty proper names. Thus to understand the reference of an empty proper name, we have to understand the insight of his idea of indirect reference. Frege takes an indirect reference as the foundation of semantics even though it contains direct reference as well. To my mind, the theory of direct reference can be justified without knowing the sense of a

proper name. It is based on the principle: "To be a name is to be a name of an object".

On the basis of that no-sense theory of reference has been developed by Mill, Russell, Kripke, Zip, Marcus, etc. According to Mill, a name denotes an object and it is the meaning of the name. For Russell, a logically proper name denotes an object with which we are directly acquainted. For Kripke, a name is a rigid designator that designates the same object in every possible world of an actual world. For Marcus, a name invariably *tags* an object. Even though Frege depends on sense as pivotal to identifying reference of the proper name, we can easily accommodate the so-called reference of proper name under the realm of Fregean direct reference. The novelty of Frege is that he attempts to solve the problem of an empty proper names in particular and the problem of meaning (reference) in general just by way of recognizing the mode of presentation of a proper name, empty or non-empty.

2.8: Indirect Reference as the Paradigm of Fregean Semantics:

I have already mentioned that instead of direct reference Frege applies the concept of indirect reference in his semantics in general. With the concept of indirect reference, Frege solves the problem of identity by bringing the concept of informative identity (a=b) where the principle of substitution would play a key role. The theory of indirect reference, according to Frege, gives rise to a solution to the puzzle of empty singular terms. In this regard, Harold Noonan says, "The theory of indirect reference also evidently yields a solution to the puzzle of how empty singular terms can occur within the context of propositional attitude construction…".[41] According to Noonan, Frege's

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[41] Noonan, Harold W., *Frege: A Critical Introduction*, Polity Press: UK, 2001, p. 188.

concept of indirect reference is so effective that it can help us to determine the truth-value of an empty proper name (empty singular terms). The sentence, for example, "The old professor believes that Odysseus was set ashore on Ithaca while sound asleep" or "That poor mathematician believes that series S is the least rapidly convergent series". In such a context, according to Frege, the reference of the singular term is its *customary sense*. In this customary sense, it is not an empty term at all. Thus Frege brings the concept of *customary sense* to know about the *customary reference* in our term (i.e., indirect reference). While resolving the puzzle of the empty proper name, thus Frege brings 'a more general theory of the context-dependent character of reference'.[42] In this regard, Frege gives an illustration that runs as follows:

If words are used in an ordinary way, what one intends to speak of is their reference. It can also happen, however, that one wishes to talk about the words themselves or their sense. This happens, for instance, when the words of another are quoted. One's own words then first designate words of the other speaker, and only the latter have their usual reference. We then have signs of signs. In writing, the words are in this case enclosed in quotation marks. Accordingly, a word standing between quotation marks must not be taken as having its ordinary reference (1969: 58-59).

According to Frege, while identifying the reference of any name whatsoever, first and foremost we identify it through language by way of getting the sense of the object used in the form of a sentence where the context plays an important role. Thus, the sense of the proper name extracting through the mode of presentation or the meaning of the

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[42] Ibid, p. 188.

sentence (meaning ≠ reference) is significant while solving the problem of reference of any proper name whatsoever. Even when Frege attempted to solve the problem of identity, he emphasized more on the customary context of the sentence under consideration. The sentence, 'The morning star' contains three words. 'The evening star' is used, as it is in the sentence: The evening star is the morning star. Here the name of 'The evening star in the former displayed sentence is not "The evening star"', but merely 'The evening star'. According to Frege, here the name 'The evening Star' is used in 'The evening star' contains three words has semantic value (truth-value) in that context. It is the same type of consideration that allows Frege to conclude that in a propositional attitude context the reference of an expression is its ordinary sense.

Thus we have to distinguish two components within Frege's theory of indirect reference: (a) the thesis that the reference of an expression is different in a propositional attitude context from its customary reference, (b) the thesis that the reference of an expression within a propositional attitude context in an ordinary sense. According to Frege, the general view of reference as context-dependent might be accepted even if it is held that thesis (b) is mistaken. Here, Fregean senses are not to be countered. In this regard, Kaplan puts the point in his influential paper. Here Kaplan says, "My own view is that Frege's explanation…of what appears to be the logically deviant behaviour of terms in indeterminate context is so theoretically satisfying that if we have not yet…satisfactorily grasped the peculiar intermediate object in question, then we should simply continue looking".

Now, if we carefully understand Frege in the real sense of the term, we can say that within the context of a single occurrence of a propositional attitude verb, an expression,

under consideration, refers to its customary sense. In our sense, the Fregean concept of customary sense plays important role in accommodating the concept of empty proper name under the realm of his semantics. According to Frege, an expression containing an empty proper name refers to its customary sense and is at par to say that its sense has indirect reference. Frege, unlike other semanticists, acknowledges thus both customary sense and indirect sense of reference to accommodate empty proper names.

Thus to understand the reference of an empty proper name, we have to understand the concept of indirect reference very clearly. To make it clear let us cite the example given by Russell: "Scott was the author of Waverly" and "George IV wanted to know whether the author of Waverly wrote Waverly". Here, context plays an important role to identify the meaning of the sentence that Quine calls 'opaque' and uses it as substantival clauses, governed by 'that' or 'whether'. What Quine calls 'opaque' is what Frege calls indirect speech (Oratio Obliqua). Such clauses, such as, 'that', and 'whether' are used in the sentence constituting *opaque context* where the verb is related to 'what is said' or 'what is thought'. It is also associated with modal expressions, such as, 'It is necessary…', 'It is possible…', 'It is permitted…', etc. According to Frege, there are other opaque contexts, such as those involving *modal verbs* like 'must', and 'may' and those involving verbs like 'want' and 'look for'. According to Frege, at least in some cases, it is possible to render sentences involving such words by means of sentences in which the opaque context occur only in *substantival clauses*. The advantage of such a transformation is that it becomes possible to differentiate between senses in a perspicuous manner by means of placing quantifiers. Thus we can identify the difference between 'You may write on any page' and 'You may write on every page' is

naturally represented by using the universal quantifier (x) narrating it as For every x, if x is a page, then it is permitted that you write on x. Again, in the second sentence, "It is permitted that for every x if x is a page, you write on x". But unlike these sentences, as discussed above we find ambiguity in a sentence like, "I am looking for a man who has been to Ireland". It can be resolved by asking, "Do you mean a particular man?". It cannot be explained just by using the quantifier as we did in the case of the earlier two sentences.

On the basis of that Frege inclines to say that a proper name, occurring in an opaque context, cannot have its ordinary reference. In the sentence quoted above, about George IV and Scott, 'George IV' indeed stands for a well-known king, but 'Scott' cannot stand. Scott thus elsewhere stands for even man Sir Walter Scott. Accordingly, Scott stands in an opaque context. Frege then says that a proper name occurring in an *opaque context* does not have its usual reference (direct reference), what does it stand for. To answer this, we must enquire what replacement does leave the truth-value of the whole sentence unaltered. If I say, 'John said that Scott wrote Waverly', I do not purport to be giving his actual words. He may have said, 'Sir Walter Scott authorized *Waverly*' or 'Scott had *Waverly* geschrieben'. Here, my statement would still be true. Here I am professing only to give the sense of John's words, the thought which he expressed. We find the same in singular terms occurring within the indirect speech that would apply to the whole sentence occupying the 'that' clause. Normally, according to Frege, we have seen, that the referent of a sentence is its truth value. If you replace a part of a complex expression with another part having the same reference as the one place, the sense of the whole expression may be altered, but its reference remains the same. This is the

108

main reason for which Frege brings the concept of informative identity expressed in the form of 'a=b'. For example, given that we know what function 'the capital of n' stands for, the reference of 'the capital of Denmark' depends only on the reference, not the sense of the name 'Denmark'. Here the value of the given function actually hinges on its argument, but surely not on how the argument is referred to. So if 'Denmark' is replaced by another singular term having the same reference, say, 'The country of which Hamlet's father was king', the referent of the whole, the city of Copenhagen – must remain unaltered. Thus what Frege intends to say here is that when a sentence occurs with its usual reference, the reference of the whole even in the case of a more complex sentence, must remain unaltered when the constituent sentence is replaced by another with the same reference. In such a case, the truth value of a complex sentence will remain invariant under the replacement of its constituent sentences by others with the same truth value. This is obviously the case when the complex sentence is formed out of its constituents just by (truth-functional) sentential operators. The replacement of a sentence in an indirect speech by another with the same truth value will evidently not in general preserve the truth value of the whole sentence. As a result of that, a sentence occurring in such a clause cannot have its ordinary reference. Moreover, if we ask what replacements are possible without a change of truth-value, to discover what its reference *in such a context is*. Accordingly, we can alter the sentence in the *Oratio Obliqua* clause without changing the *truth-value of the whole* just so long as we do not change the sense of the constituent sentence, so long it continues to express the *same thought.* Thus, the clause Oratio Obliqua used in the sense of indirect reference based on context is deeply associated with the concept of the same thought retaining the same truth-value – the

sole demand of Fregean semantic proposal. This point would be made clear in the next sequel when we deal with the concept of thought after Frege. At present, what we intend to say here is that what Frege calls the 'indirect' referent of a sentence – its referent when it occurs in indirect speech very similar to the case we have cited and discussed in the case of 'Scott' and 'the author of Waverly'. It seems entirely natural to Frege that when we use a sentence in another context, we are using it to express a sense (a thought). But we are not talking *about that thought*. When I say, Frege says, "Jones said that Scott wrote *Waverly*", we are talking about the sense of his words, about the thought which he expressed, and we use the sentence, Frege opines, in the subordinate clause to refer to that thought.

2.9: Indirect Speech as the Mark of Accommodating Empty Proper Name:

It thus seems that Frege brings the concept of indirect speech as the mark of accommodating empty proper names under the realm of his semantics. Of course, by bringing the concept of indirect reference Frege negotiates a bit about the strict demand of reference at par with other semanticists, but he does not negotiate at all with the general perception of the sense of the proper name in the strict sense of the term. What he intends to say here is that under his semantic proposal there is no point in saying that the term reference needs to be understood in the general sense. This does not make sense to say Frege ignores the relevance of reference in his semantic proposal. He brings the concept of indirect reference to mitigating the demand of semantics and it is the ingenuity of Frege to offer us a new interpretation of semantics in an accommodating manner by bringing language to a wide length. What we claim here is that Frege consistently sticks to his sense. It thus seems natural to say that the indirect reference

of a singular term is what is ordinarily its sense. Frege claims, that the same reasoning would equally be applied to all other constituents of an *Oratio Obliqua* clause. It is an incomplete expression occurring in it. But they will stand in this context for what is ordinarily their sense. This can be made possible because here a predicate in indirect speech can be replaced, without a change in the truth-value of the whole sentence. Here, only by a *predicate* that ordinarily has the same sense simply because the whole Oratio Obliqua clause stands for its ordinary sense and its constituent singular term stands for their reference. Here the sense of a sentence is built up out of the sense of its constituent parts and the indirect reference of the whole is determined by the reference of its parts. That is why Frege brings *the principle of compositionality* and the *context principle* introduced under the realm of his semantics. We will discuss these principles later on. What we intend to say here is that the sense of an expression, according to Frege, actually determines its reference adequately, either directly or indirectly. Frege thus argues that since expressions occurring in indirect speech do not have their ordinary reference or usual reference, the sense they have in this context cannot be their ordinary sense. Just unlike the other philosophers what he demands newly is that the sense which they carry in indirect speech is their indirect sense.

This position of Frege has been criticized by Russell in his famous essay, 'On Denoting'.[43] Here Russell criticizes Frege's distinction between sense and reference which is understood in Russellian terms 'meaning' and 'denotation'. We think that what Russell understood by the term 'meaning' is akin to Frege's 'reference'. However,

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[43] Russell, Bertrand, "On Denoting" in *Mind*, Vol. 14, No. 56 (Oct., 1905), pp. 479-493.

commentators would say that its position of Russell is extremely confusing. But many would say that Russell's criticism against Frege can be justified not with regard to his distinction between sense and reference; but rather with the distinction between sense and indirect reference. Russell here points out that on Frege's own principle, 'there is no backward road' from reference to sense actually means that sense adequately determines reference but reference by any means determines sense.

The question then is: what is the indirect sense of an expression? In this regard, Frege goes on to say that what its indirect reference is, namely, its *ordinary sense*. But this is not enough to determine what its indirect sense is. There is no way available to state what the sense of an expression when it occurs in an *opaque context* is to be taken care of. One might say that since 'Socrates', when occurs in an *opaque context* stands for what, in a transparent context, is its sense. Its sense in an opaque context must be the same as the sense in a transparent context. It stands for its ordinary sense, i.e., that the indirect sense of 'Socrates' is the same as the ordinary sense of 'the sense of "Socrates"'. But this is again implausible. It is doubted by saying that expressions in double Oratio Obliqua, for example, 'Scott' in 'Russell said that George IV wonder whether Scott wrote Waverly'. Since 'Scott' occurs within the clause following 'said that…', by Frege's doctrine it must here stand for the sense it would have in that clause taken as a complete sentence. In the sentence, 'George IV wonders whether Scott wrote Waverly', 'Scott' has its indirect sense. In the longer sentence, 'Scott' will have a double indirect reference as well as a double indirect sense. Its double indirect reference will be its *simple indirect sense*. Simple indirect sense stands for simple indirect reference. Simple indirect reference is nothing but the ordinary sense of simple indirect

reference. According to Frege, since we cannot say what the simple indirect sense of an expression is, we cannot even say what its referent is when it occurs in *double Oratio Obliqua*. As an example of double *Oratio Obliqua*, we can take the example: 'Scott' in 'Russell said that George IV wonder whether Scott wrote Waverly'. Thus it seems to follow that we cannot even know how to judge the truth-value of a sentence involving double Oratio Obliqua. This constitutes a *reductio ad absurdum,* according to Michael Dummett of the whole theory.

According to Dummett, the whole dispute regarding indirect reference arises from the principle that the reference of an expression must be determined from its *sense alone*. It is only by means of this principle that it was possible to deduce the indirect reference of an expression from the ordinary sense of the expression. According to Dummett, the reference of an expression actually differs when it occurs in a transparent and when it occurs in an *opaque context*. Those who adhere to direct reference or in other words those who stuck to the perception of direct reference cannot admit opaque context or transparent context like Frege. Frege brings the concept of opaque context or Oratio Obliqua to accommodate the reference of empty proper names and thereby attempts to solve the problems of negative existentials. In the case of *opaque context,* it has different senses in two different contexts as we have seen in the case of informative identity.

The question then naturally arises: what actually is the main reason for holding to this principle? What else is there about an expression, other than its sense, which could be relevant to determine its reference? According to Dummett, obviously, they would not be physical properties, i.e., its length, euphony, or spelling, nor again its *tone,* since these and related features appear to exhaust its properties. Thus, eventually, we are left

only with its sense of what could determine its reference. However, this appearance arises only because we have been asking after its reference in isolation from the context of the sentence in which it occurs, which Frege expressly forbids. According to Frege, a word does not have a reference on its own. It has a reference only in the context of a sentence. This position of Frege is revolutionary in the sphere of semantics because this position alone germinates the sense theory of reference and it alone stands against the no-sense theory of reference advocated by the whole host of semanticists. We think Frege's position is fully harmonious with the view that while a word or expression by itself has its sense. But this does not lead us to assume that a word by itself has a reference at all. Following Frege, Dummett remarks, "Only a particular occurrence of a word or expression in the sentence has a reference, and this reference is determined jointly by the sense of the word and the kind of context in which it occurs".[44] It thus reveals that the sense of a word may just be such as to determine it to stand for one thing in one kind of context, and for a different thing in some other kind of context. Accordingly, we may therefore regard an expression in an *opaque context* as having the same sense as in a transparent context, though a different reference. Thus the sense of a word cannot vary from context to context, but what can vary is the *property* of the word itself, apart from any context. For Dummett, it is by knowing the sense of constituent words that we understand the sentence. In such a case, the occurrences of the sentence do not play any role whatsoever. The point is that if the sense of a word varies from context to context, it would have to be according to some general rules. If we were to understand the sentences in which it occurs, then this general rule could in

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[44] Dummett, Michael, *Frege: Philosophy of Language*, Duckworth: London, 1973, p. 268.

reality constitutes the *one* common sense that the word possessed. Of course, in the case of an ambiguous word the sense can vary from one context to another context. But this is just the case in which we cannot be sure of understanding aright the sense of the sentences in which the word occurs. Dummett remarks, "*The sense of an ambiguous word is not 'determined' by the context; rather the context provides the ground for guessing which sense is intended*".

What is revealed from the above is that there is no such thing as the indirect sense of a word. There is just its sense which determines it to have in transparent contexts a reference distinct from its sense and in opaque contexts a reference that coincides with its sense. Therefore, there is no reason to think that an expression occurring in *double Oratio Obliqua* has a sense or has a reference different from that which it has in a single Oratio Obliqua. Its referent in double oratio obliqua will be the sense that it has in single oratio obliqua, which is the same as the sense it has in ordinary context, which is the same as its referent in single oratio obliqua. Thus it is intuitively clear and reasonable that the replacements of an expression in double oratio obliqua which will leave the truth-value of the whole sentence unaltered are – just as in single oratio obliqua – those which have the same sense. Thus, it seems that double indirect sense and reference must be distinguished from simple indirect sense and reference was a mechanical deduction from a slightly faulty theory, according to Dummett. Thus from the above, we find a philosophical revolution after Frege in what sense just by bringing the concept of indirect reference along with the concept of Oratio Obliqua, Frege solves the problem of an empty proper name. The distinctive aspect underlying the whole program is that

a word may have sense but may not have a reference. The reference of a word can be determined, either directly or indirectly, with the sense of the sentence and nothing else.

On the basis of the above consideration, we are now in a position to spell out the distinction between sense and reference and also the philosophical significance between sense and reference. We have already spelled out the distinction between sense and reference by citing the example of informative identity associated with Fregean examples 'The Morning Star' and 'The Evening Star'. We have also explained in great detail Frege's reliance more on sense rather than on reference. Sense of a proper name, according to Frege, is nothing but the mode of presentation of the same. Thus, the sense of a proper name can be expressed descriptively and also in different modes of presentation. This expression of sense is made possible, we will see later on, with the association of thought. We will see in the next sequel that the concept of thought actually plays an all-important role in determining the sense of the sentence. Frege's ingenuity is that by emphasizing sense or mode of presentation, Frege thus single-handedly brings the sense-theory of a proper name into the realm of semantics. This actually makes Fregean semantics, in particular, and semantics, in general, more comprehensive and acceptable as well to the later philosophers.

What then is the objectivity of sense? Is sense a mere mode of presentation or something else? What is the determining factor of sense or mode of presentation through which one can reveal its referent and thereby solves the problem of meaning? All these questions can adequately be resolved just by way of knowing the objectivity of sense. It has already been said that the concept of thought would play a significant role to get a sense of the proposition or sentence constructed by proper name. In this regard, the

distinction between sense and conventional significance and the possibility of sense varying from speaker to speaker is relevant to the understanding or to assess the objectivity of sense as expounded by Frege. The sense is objective, which means for Frege, the sense that it is not subjective. Here, the objective-subjective distinction is extremely crucial for evaluating the *objectivity of sense*. The objectivity of sense is in no way associated with psychology; whereas the *subjectivity of sense* is deeply associated with psychology. We have already stated very clearly and distinctly that Fregean semantics is in no way associated with psychology; rather it is deeply associated with and governed by *Begriffsschrift,* i.e., Concept-Notation. We have also stated that Fregean Concept-Notation is the by-product of elementary logic and mathematics where there is no role of psychology. Accordingly, here we can relate to this backward-looking background here when we do engage with the inquiry about the objectivity of sense after Frege. Accordingly, we can say that the subjective aspects of sense are in no way related to Fregean semantics because Fregean semantics, even though it is comprehensive in nature, cannot tolerate the presence of any sense of psychologism. Thus when we seek the objectivity of sense after Frege, we are primarily concerned not with the subjective aspect of sense, but rather with the objective aspect of sense. However, it would be a matter of great challenge even to Frege to locate the conceptual demarcation between the subjective aspect of sense as well as the objective aspect of sense. But one thing is very clear to us Frege surely was in no mood of entertaining the psychological aspects in his semantic proposal beginning with sense or mode of presentation. Actually, the subjective-objective aspect of sense is deeply associated with the subtle distinction between ideas and thought. Those who fail to

distinguish between the subjective-objective distinctions of sense equally fail to distinguish between ideas and thought. This actually creates a new dimension in Fregean semantics which needs special attention in isolation.

In our sense, Frege was very conscious of all these tricky philosophical issues when he engaged with the famous sense-reference distinction. Frege developed his three fundamental principles of which the first is engaged to separate sharply psychology from logic, the subjectivity from objectivity. In this regard, Frege remarks, "The reference and sense of a sign are to be distinguished from the associated idea….The same sense is not always connected, even in the same man, with the same idea. The idea is subjective: one man's idea is not that of another….This constitutes an essential difference between the ideas and the sign's sense, which may be the common property of many and therefore is not a part of a mode of the individual mind. For one can hardly deny that mankind has a common store of thoughts which is transmitted from one generation to another".[45] It seems from the aforesaid remark that Frege consciously distinguished both sense and reference from an idea. This ensures that there cannot be any psychological content in the sphere of sense and reference. We have already claimed that the sense of a sentence is thought. Thus thought is embedded in a sense. The idea is not embedded in a sense. The idea is psychological in nature. Thought differs from an idea in the sense that there cannot be psychological content in thought. We will come up with this issue in great detail in the next sequel. What we intend here is that the objectivity of sense is located in thought, but in no way associated with an idea. If

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[45] Frege, Gottlob, *Nachgelassene Schriften*, ed. by H. Hermes, F. Kambartel, F. Kaulbach, Hamburg, 1969, p. 59.

the objectivity of sense is associated with the idea, then the sense or mode of presentation would be vitiated because of psychological intervention. In such a case, the whole program of Fregean semantics would be *jeopardized.*

But the problem is that even according to Frege the sense of a proper name as alternatively known as the mode of presentation of a proper name is shareable by more than one person. If it would be the case, how the objectivity of sense is primarily concerned only with the objective meaning of sense? Can we then not take it as shareability or inter-subjectivity of thoughts and eventually contrasted thought with ideas? In this regard, we can say, after Frege, that the sense can be grasped by different thinkers, not like an idea, but a mode or part of any one mind associated with thought. According to Frege, it would perhaps be the case that different men may associate different senses with a particular word. But, they are not prevented from grasping the same sense but they cannot have the same idea. Frege says, "It is indeed sometimes possible to establish differences in the ideas, or even in the sensation of different men, but an exact comparison is not possible, because we cannot have both ideas together in the same consciousness".

Frege gives us an analogy to clarify this position further. In this regard, Frege says that even somebody observes the moon through a telescope. Frege compares the moon itself to the reference. For Frege, here the moon, the content of reference, is the object of observation. It is mediated by the real image projected by the object-glass in the interior of the telescope, and by the retinal image of the observer. Here Frege compares the former to the sense, the latter is like the idea or experience. Frege further contends the optical image as considered here in the telescope is indeed one-sided and dependent

upon the standpoint of observation. But still, according to Frege, it is *objective* in nature. It can be used by several observers. However, each would have his own retinal image. Thus in a sense, it has the relevance of intersubjectivity or shareability. It is to be noted here that Frege applies the sense/reference distinction just by way of preconceiving the distinction between sense and conventional significance. In our sense, his idea of sense is associated with thought but no idea in the traditional Lockean sense but his understanding of conventional significance is also a process of thought where the conventional Lockean sense of idea is embedded in.

Thus it appears that to have a better perception of the Fregean concept of sense, we have to have a deeper understanding of the concept of thought. I do think the insight into the concept of sense is deeply rooted in a proper understanding of the concept of reference. Therefore, in the next sequel, we will deal with Frege's concept of thought to illuminate the concept of reference proper.

…………………….x…………………….