

SENSE AND NO-SENSE THEORIES OF PROPER NAMES

The Philosophy of Language exhibits two main notions of proper names; let the first notion be symbolized by PN- and the second one by - PN*. For present purposes, PN and PN* are the arbitrary symbols to refer to *no-sense* and *sense* notions of proper names. The quest of this paper consists in exploring the similitudes rather than contrasts, in contrast of the view that PN is a rebuttal of PN* and PN totally discards PN*

Frege and Kripke both have philosophical systems, having a definite program and goal for their academic journey and destination. In both, Fregean and Kripkean systems, call system F and system K respectively, the notion of proper name plays a central role. For instance, the system F could not be completed without distinguishing a "concept" from an "object", "object" from "function", "concept" from "function," and "sense" from "reference". In all these distinctions, "proper name" is a key notion which cannot be precluded; otherwise, system F would not only lack the significance, but also might not have survived. The concept of a proper name of system F is being recognized by PN*. It relates and coexists with the other concepts, such as "concept," "function," and "object" in a meaningful way.

In system K, the role of proper names is not less significant. There are basically three notions about names and objects, namely "Naming", "Identity"; and "Necessity". The system K utilizes some concepts such as Rigid Designator, transworld-Identity and Necessity, and a priority. All these notions are meaningless if the notion of proper name is being divorced from K.

Precisely, this is an attempt to show that (1) Frege's early writings do exhibit a Kripkean style notion of proper name, (2) Kripke's attribution of the theory of definite description to Frege is a misrepresentation, and finally, (3) a synthesis of PN and PN* would

give us a more comprehensive and plausible account of proper names.

I

In the early phase of Frege's writings, there was hardly a distinction between PN and PN*. The first time that Frege introduces the notion of a name in his *Begriffsschrift* (1879) is in the connection of Equality of Content. The names A and B can be conjoined by the sign of equality if they have the same conceptual content. In the example of a rotational diameter, B, along the circumference of a circle coincides with A, so that both the names have the same content.

(i) $(A = B)$

This proposition tells us first, that the names A and B refer to the same conceptual content and second, that the conceptual content of A and B remains unchanged in the case of mutual replacement of A and B. Third, the invariant portion of the sentence under a replacement is named function, and the replaceable part as the argument of the function. Here, the equality of relation is not between signs or names, but rather between conceptual contents (or object). Notice that, in *Begriffsschrift*, Frege does not introduce the notion of sense in the account of name. It appears for the first time, in "Function and Concept" in 1891.

In *Grundlagen* (1884), Frege beautifully identified a proper name in the context of number. The sign "One" is introduced as a proper name of an object of mathematics which does not allow plurality. (4;59). The nature of a number as well as of a proper name has been determined in the context of a sentence in which it occurs. He treats numbers as object. The objects are the right kind of things for identity relation. The "a" and "b" are the names and stand for the object, "a=b" holds. The word "one" is being associated with the objects which are one in nature, for instance, God. The notion of an identity, a one, and an object are inseparable. Moreover, it provides a criterion of class membership of objects. In addition, the unique role and nature of "one" symbolizes the uniqueness of proper name too. What is meant by a name? He explains in the context of a proposition.

(ii) "All whales are mammals."

Apparently this proposition concerns animals and discerns concepts, but we don't know what kind of animals they are - even if someone were to bring a whale before us, we cannot infer that the animal before us is a mammal. Infact, we need an additional premise that can tell us "it is a whale". As a principle, Frege asserts, "It is impossible to speak of an object without in some way designating or naming it". (4;60). Notice here that Frege clearly introduces a notion of "designation" and equates it with "naming." The "Naming" of an object is a process of designation." (4;61).

Kripke invents a notion of "rigid designator" in order to characterize proper names. For him, a rigid designator must designate to the same object in all possible worlds. (5;48). The name "Nixon" designates rigidly only a person in every situation.

Frege seems to endorse Schroder's notion of names and refine it further.

He quotes:

"So soon, that is, as we picture an object complete - with all its properties and in all its relation, it will present itself as unique in the universe, and there will no longer be anything to match it. The name of the object takes on at once the character of a proper name (*nomen proprium*), and the object itself cannot be thought of as one which is found more than once. But observe that this holds good not only of concrete objects, but generally". (emphasis added).

First of all, Frege observes "what is true in this account is wrapped up in misleading language, that we are obliged to straighten it out and sort the wheat from the chaff." (4;63). The role of general concept is assigned to signify a concept and it can be done when these concepts are conjoined either with definite articles or demonstrative pronouns. Then they can be counted as proper names of things as Frege is identifying the concepts of general nature and proper names designating to objects. Hence, he is introducing a notion of a definite description and a proper name. He further clarifies that

(iii) "The name of a thing is a proper name." (4;64).

(iv) "An object is not found more than once." (4;64).

The (iii) reflects that there is a designating relation between a proper name and an object once an object is named, it must be designated rigidly by the proper name. In addition, the assertion (iv) indicates clearly that Frege was having something in mind similar to the notion of a possible world. He is elucidating that once an object is named, it should be picked out every time in all situation, by the same name. He uses the phrase "complete determination" for it.

How I see Schroder's passage is given in the following:

(i) An object is to be identified by its properties, relations, and uniqueness of unmatchable character.

Kripke also identifies an object by its properties. He says, "when we think of a property as essential to an object we usually mean that it is true of that object in any case where it would have existed." (5;48)

(ii) The object characterised in (i) would be named and cannot be thought of otherwise. It would be a specific and a concrete object with a rigid name.

This is what Kripke describes rigid designation, "a designation rigidly designates a certain object if it designates that object wherever that object exists; if, in addition, the object is a necessary existent." (5;49).

(iii) It allows definite description to refer to an object of a kind if that description is obtained through abstractions and that abstraction is sufficient to determine the object in question completely.

Frege, as mentioned above, adds one more requirement that abstracted concepts must be conjoined with either a definite article or a demonstrative pronoun. It is obvious that this position does not entail that the meaning of a proper name is the definite description. Thus, there are only two ways to refer to an object - either through

proper names or through a definite description if they fulfill the requirement as mentioned above. For Example, the reference of white house can be fixed either by the "White House," the name, or by appropriate (in accords to (iii)) definite description. "The white building serving as residence of the president of the United States in Washington, D.C." The definite description can be more specified by adding exact location of the White House in Washington. Frege is not committed that "white house" means "the white house building of the president of the United States in Washington" as Kripke inaccurately attributes to Frege, but rather it is used to determine the object in question. For Frege, proper names are not abbreviations of definite descriptions, as Russell holds. Presumably, Kripke should accept this version of definite description because he himself uses definite description for fixing the reference of a proper name, but denies the meaning fixation. (5;57). Although he extends his notion of rigid designation to the term of natural kinds (or general terms), such as "tiger", "water", "pain", "election", "gold", etc., these terms are similar to proper names in the sense that they do designate their referents rigidly. Moreover, he uses the definite description for gold, such as "the substance of atomic number of 79" in order to fix its referent.

Frege takes a somewhat similar view when he says that "the number of Jupiter's moons" signifies the same object as the word "four." (4;69). In the next line, Frege makes the issue a bit complicated:

"No more is there in the name "Columbus" anything about discovery or about America, yet for all that it is the same man that we call Columbus and the discoverer of America." (4;69).

The addition of "the discoverer of America" seems to contradict this passage. Either it is a result of an omission, or, if it is deliberate then it signals a change in his position. However, as we have seen there is some evidence to conclude that Frege was entertaining a theory of names of Kripkean style. The above quoted phrases from *Grundlagen* indicate that he acknowledged the fact that a proper name designates an object forever. So far, he did not introduce his notion of sense and reference.

II

Kripke in *Naming and Necessity* does not seem to take Frege's account of proper names very seriously. The obvious example is the attribution of a description theory of names to Frege. (It does not mean that Frege denies that, but rather that he claims something more) His main contribution generally is considered to be his distinction between 'sense' and 'reference.' Kripke doesn't take the trouble to discuss the sense theory of proper names; instead, he concentrates on only one issue, mainly, definite description. Moreover, Kripke's style of bracketing Frege and Russell in most of the references would not be acceptable for a simple reason. Frege and Russell differ significantly in their accounts of a proper name. Russell regards proper names as "disguised" or "truncated" descriptions, while Frege does not. Russell seems to hold that the meaning of a proper name can be given in terms of definite description, but Frege does not accept it. However, Frege is in agreement with Russell that the logical behaviour of a proper name and a definite description in a sentence is identical, because both make a similar contribution in order to determine the truth-conditions of that sentence.

Frege does hold the referent of the proper name, such as "Aristotle," and the definite description, such as "the teacher of Alexander the Great", is identical, but not the sense¹. He illustrates that "the morning star" and "the evening star" stand for the same object (same referent) but they differ in sense.

Dummett rightly observes that Kripke attributes to Frege a version of a theory of proper names which states that proper names are definite descriptions. Admittedly, Frege does give a flavor of it; however, it would be unfair to conclude that he was committed to description theory. We should interpret him in his broader perspective of thought. From this point of view, the obscurities in the text should be interpreted consistently.

1. A common source of confusion is due to Frege's usage of terms. If we use "meaning" for *Bedeutung*, then our sentence would be: The meaning of "Aristotle" is identical with the meaning of "the teacher of Alexander." I believe Kripke understands *Bedeutung* as *sinn*. That is why he only acknowledges "meaning" of a proper name, but not reference in Frege. In this paper, I shall use only sense (*sinn*) and reference (*Bedeutung*), and avoid the use of "meaning."

Dummett's commentary and analysis of Kripke's Naming and Necessity is fascinating, but in one respect, out of proportion.² He touches almost every aspect of Kripke's account in defence of Frege. I shall deal with some of the objections Dummett raises, relevant to my paper. Before that, it seems appropriate to shed some light on Kripke's views.

The main problem before Kripke was: how does a term (or proper name) get its referent? He thought, first, that definite description or cluster of descriptions of names do not refer to their referents because the description(s) of a term may change in counterfactual situations. He says if "Aristotle" means "the man who taught Alexander the Great", then this description of the name "Aristotle" may only generate a tautology such as "Aristotle was an Aristotle" or Aristotle was the teacher of Alexander the Great". But, in fact, it is not something we could discover to be false. Secondly, we may know several characteristics about Aristotle, but every characteristic or property would be a contingent expression; that is, Aristotle might have other characteristics too. Hence, being the teacher of Alexander the Great may not be the meaning of the name "Aristotle"; these definite descriptions mostly fail to refer an object in all possible counterfactual situations. (5;28-30).

Dummett's argument in order to show an inherent difficulty in Kripkean argument goes like this: According to Kripke, one might hold that the following statement is true:

- (v) "The man who taught Alexander might have not taught Alexander" ;

but it would be wrong to assert that

- (vi) The man who taught Alexander didn't teach Alexander".

Further, Kripke holds

- (vii) "The teacher of Alexander might not have taught Alexander",

² He devotes only 29 pages for chapter 5, but he discusses Kripke in 42 pages in the appendix.

and

(viii) "Aristotle" might not have been Aristotle. Dummett is arguing here that if (viii) is false in the modal context using proper name, and (vi) is false using definite description, then why are (v) and (vii) not false? But Kripke would argue that most of the things we attribute to Aristotle might have turned out to be false. In that situation he did not do them. This is the force of his argument, that the definite description we use can't work in some situations. But it is not the case with names. Kripke accepts Dummett's plea that there are circumstances in which the teacher of Alexander. However, he says it is not true that "Aristotle might not have been Aristotle, although Aristotle might not have been called "Aristotle", just as 2×2 might not have been called "four". (5;62).

Dummett does not have a really strong argument to conclude that no distinction appears between a proper name and definite description in the modal context. (2;114-15). Now, he considers another example to show the ambiguity in terms of possibility and necessity. Kripke assumes that "St. Anne" is a proper name and "The mother of Mary" is a definite description. He shows that the two are not synonymous. If it is true that there was a woman Mary and there was a parent. But it is not clear whether the person named "St. Anne" was her mother. Hence, it is not necessary true that if there was such a woman as "St. Anne", she was a parent. It is quite possible that she may have died in infancy, etc. Thus, the definite description can't be the meaning of "St. Anne". (2;112). Dummett says,

After all, even though there is an intuitive sense in which it is quite correct to say, 'St. Anne might never have become a parent,' there is also an equally clear sense in which we may rightly say, 'St. Anne cannot but have been a parent,' provided always that this is understood as meaning that, if there was such a woman as St. Anne, then she can only have been a parent. Kripke indeed acknowledges that such a sense

exists, although not in connection with personal proper name". (2;113).

Now, why should Kripke not accept it? It does not seem to defeat Kripke's argument. The point Kripke is making is this: the motherhood or parenthood of "St. Anne" is a contingent property. It might be true. It might not be true. If it is correct, then the thesis that the meaning of proper name is definite description is being refuted.

Kripke makes a distinction between proper name and definite description via a rigid designator, which is merely a term standing for some specific and same object in all counterfactual situations wherever that object exists. According to this criterion, "Moses" is rigid designator, but the definite description "the man who led the Jewish people out of Egypt" is not. There might have been some situation in which somebody other than Moses led the Jewish people. Kripke holds that fixing the reference does not imply fixing the meaning of the term in question.³

Dummett proposes that in order to make "rigid designator" a useful notion, the metaphor of a possible world must be given up. In what sense is the notion of a possible world a metaphor? Dummett does describe its reason; he says "the meaning of a term would have to be a function defined over some or all possible worlds whose value for any possible world was an object in that world; the worlds for which it was defined would be those in which the term had no reference". (2;127). For him, the connotation of a proper name may function over some or all possible worlds as partial constant function. (2;127). I suppose Dummett is saying that, irrespective of proper name or definite description, or rigid and non-rigid designators, every term acquires some meaning (connotation) when it refers to an object either in one world or another. Therefore, we don't need any more notion of possible world. Immediately, a question arises: Is there no alternative way to maintain the notion of rigid designation on one hand, and attaching the sense on the other, instead of removing the metaphor? What is the notion of a possible world? Kripke says it is a mistake to think " . . . possible worlds as something like distant Planet, like our own surroundings but somehow existing in different dimension..." He defines "possible

³ Dummett notices that Kripke never explains his notion of meaning.

worlds" in terms of mathematical probability. The 36 possible states of the dice are literally 36 "possible worlds." Now the actual world in this case is the state of the dice that is actually realized. (5;16). Kripke is holding the view that the referent of a proper name exists somewhere among the many possibilities. Once the name is picked up for its referent, of course, actual world is realized, and hence, it precludes all possibilities of its existence in any domain whatsoever.

Dummett's line of argument seems to show that there is a sense in which one can say that the use of a proper name and a definite description in the modal context generate ambiguities, especially in the case of proper names where, he argues, *de dicto* and *de re* confusion is found, particularly in the example of "St. Anne". The move is to show the inconsistency in the account of rigid designator by showing that there are ambiguities in the usage of proper names in the modal context. Even if we assume that it can be shown that notion of rigid designator is untenable, the problem of sense of proper names remains.

III

Most of the authors on Kripke attribute to him "A casual theory of proper name", although he himself never advanced a theory like this. Nevertheless, he does provide a justification for the no-sense theory of proper name in terms of chain communication, that goes back to the original referent.⁴ Dummett states that when a person is initially baptized, a name is given ostensively.

"Subsequent great speakers use the name with an intention of using it with the reference with which it was originally endowed. Later still, yet other speakers pick up the use of the name . . . This process continues, and so the use of name is passed from link to link of a chain of communication." (2;147-148).

⁴ What is true in case of causal theory, the same is true for no-sense theory of proper name. What leads me to call it by no-sense, is the conviction that it overwhelmingly represents Kripke's intuitions and contrasts with Frege's theory of sense and reference.

His concern is not here to discuss speaker of names or the intentionality of these name-users, but rather to provide the core notion of proper names. The baby who was given a name, later "Aristotle", is Aristotle because his given name rigidly designates him only. The chain communication argument is merely a justification for a question of how we know that the name "Aristotle" stands for Aristotle. The second justification may be given in terms of definite description. The description of Aristotle as so-and-so would help as to apply "Aristotle" to its referent. But in that case too, the description must have been written by someone else, who know Aristotle. Thus, link-explanation does remain crucial in fixing the reference of "Aristotle". Kripke would not be comfortable with the view that fixing the reference of "Aristotle" implies fixing the meaning of "Aristotle". Frege, in my view, is not doing this. His notion of meaning, more accurately, sense, is not commonsensical. As we understand it, "astronomy" means "the scientific study of universe" Aristotle means the teacher of Alexander the Great". The first problem is how to identify a name. The identification issue is being linked with the distinction between an object and a concept (or a function). According to Frege, all linguistic expressions normally take the form of argument and function; in other words, the expressions are either the names of objects or the names of functions. The names of objects are proper names. So, any term, expression, and even a sentence, may be characterized as an object if it occupies the place of an argument of a sentence and if some proper name refers to, or stands for, that object. The proper name in an ordinary sense, such as "Aristotle", "Kripke", and ordinary definite description such "the teacher of Alexander the Great", may logically behave in the same way if they occur in the argument place and stand for the same object. The reference of a proper name, definite description, or particular term must be an object.

Frege holds that a sentence refers to its Truth-Value. If we strictly follow Frege's terminology, then we are led to a very complicated and sensitive point. The natural conclusion is that the sentence is proper name and its Truth-Value is the referent (or an object). The simple formula is, the object is what an expression stands for. Or, conversely, if an expression refers, it must refer to an

object. Although Frege's mutual reflective criterion seems oversimplified, because it surprisingly reduces objects to linguistic entities and vice versa.

Before discussing the sense of a proper name, let's recall the previous discussion. According to that elucidation of an object and a proper name, the notion of an object seems to be the significant point of departure because in Kripke's program, objects are physical and concrete. It might be an appropriate attempt to give an interpretation of Frege which can permit expressions, including numbers, to behave like objects when they are appropriately designated by some other linguistic entities, especially by proper name. But this interpretation should not allow objects to become linguistic entities.

Now, consider Kripke's main thesis. It requires that a proper name must designate rigidly to an object, it must be communicated through a causal chain, and once it is realized, it must preclude the existence of the bearer of that name in a counterfactual situation.

Intuitively, first, it seems to me that this notion of proper name is not in conflict with Fregean notion of a proper name. Therefore, this feeling encourages us to hold the view that a supplement of a sense to rigid designation would not be incompatible with an overall Kripkean program. For instance, "Aristotle" is undoubtedly a proper name, according to PN and PN*, the only problem remains about the "the teacher of Alexander". Assume that "the teacher of Alexander" is a proper name, as Frege holds, or any sign indicated by quotation marks. " " is a proper name and rigidly designates Aristotle; furthermore, assume that there is a chain history about " " and it always refers to Aristotle in all possible worlds. And if it has turned out that Aristotle has another name "Aristotle", in that case, "Aristotle" would be necessarily identical to " ". No doubt the fact about the identity of names is an empirical fact, but the relation between them would be of necessity. From the same token, Kripke should accept this fact that if "the teacher of Alexander" is a sign of some kind and rigidly designates only Aristotle, a causal link is established and that causal chain tells us that "the teacher of Alexander" refers to Aristotle, as in the above case " " does. Then we can conclude that "the teacher of Alexander" = "Aristotle" if it turns out both signs - i.e. "Aristotle" and "the teacher of Alexander" - refer to the same object, i.e., Aristotle. The point I am making here

is this: we cannot rule out the circumstances in which a definite description might have met the requirements for a proper name. It does not mean that the sense of a proper name is a definite description. Instead, the definite description is itself a proper name, or a collection of four words "the - teacher - of - Alexander" is a proper name.

Frege illustrates that two expressions having different senses may refer to the same object. "The morning star" and "the evening star" refer to the same object, the planet named Venus, but they differ in sense. Thus, the sense of "Aristotle" is distinct from the sense of "the teacher of Alexander". From this elucidation, we understand two things. First, Kripke's repudiation of "Aristotle" means "the teacher of Alexander" was mistaken because Frege never held this view explicitly. Second, the sense of one proper name or singular term is not identical with the sense of another proper name even if both refer to the same object. In other words, association of sense with proper names does not imply association of definite description with names. Contrary to that, it does say that the sense of a proper name and sense of a definite description must be different. Of course, the sense of "Aristotle" and sense of "the teacher of Alexander" in identity statement such as "Aristotle" = "the teacher of Alexander" is different; however, both refer to the same object.

There is another similarity between Frege and Kripke which emerges when we consider their views concerning the problem of fixing the reference of proper name. Kripke holds that if there is an essential property of an object then it must be true of that object where that object would have existed. (5;48). And if that object is to be referred to by its bearer, then that bearer should refer to the object through its essential properties. It can't be done unless some expression describes the properties which would have to be true. Particularly in the case of natural kind term, Kripke ties up rigid designation with the essential properties. Of course, Kripke is not as candid as Frege is, concerning Truth-Value of the expressions, but one can sense this feature from his talk of essential properties of an object named. And that relation between an object and properties must hold as true.(5;57). Otherwise, reference cannot be fixed. Kripke does not prescribe any method to determine the Truth-Value directly. This might be the reason that his orientation of semantics

indeed appeals to commonsense intuition. Nevertheless, Frege's method is rooted in his formal and logical systems.

Frege characterizes a reference of a sentence by its Truth-Value. Suppose

(1) The morning star is a body illuminated by the sun;

(2) The evening star is a body illuminated by the sun.

(3;62)

The propositions (1) and (2) refer to the same object because both share the same Truth-Value and Truth-Value is being determined by the role the singular terms play in determining the Truth-Value. But (1) and (2) differ in sense.

The identity relation between "the morning star" and "the evening star" holds if we know that both the expressions refer to the same object, namely Venus, but "the morning star" and "the evening star" do differ in a sense, because they differ in cognitive value. Notice that Kripke also talks about the identity statement, such as

"Herperus = Phosphorus"

This is necessarily true and is to be known empirically. The Truth-Value of the identity statements, in both cases, relies upon the cognitive information.

In the Kripkean system, identity relation is not only a posteriori, but necessity in a metaphysical sense. Once it is established that "Herperus" and "Phosphorus" refer to the same planet, the relation must hold. Frege acknowledges different senses in "Herperus" and "Phosphours" because both proper names do have the same cognitive value, but that has to be determined differently. I observe that if the sense-aspect is being introduced to Kripkean notion of a proper name, on the one hand, the notion of a rigid designation would remain intact, and on the other hand, a more comprehensive notion of a proper name would be generated.

According to Aristotle, the denotation and connotation of terms increase and decrease respectively and inversely. The increase in the denotation results in the decrease of the connotation of that term. Moreover, we know that Frege and Kripke both partially

accept Millian account. Kripke endorses the denotative aspect and Frege accepts the connotative one. More precisely, Kripke acknowledges that proper names denote and do not connote, while Frege acknowledges that the singular terms connote. This is the general understanding, but I feel it is not fair, at least in the case of Frege. He accepts both- a term of a proper name captures two dimensions, a denotative and a connotative one. At this point, Dummett is perfectly right that Frege's "sense" theory reflects what connotation they tell. (2;132-33).

Kripkean response would be like this: if we attribute sense to a proper name in terms of connotation, it implies that a name user must know about the bearer of that name. For instance, one should know what "Godel Theorem" is like if he/she is using it to refer to something. Dummett feels that it is a hard requirement in the sense that it would consequently follow that a person cannot refer to a city because he/she does not know about that city, say, Tokyo. Surely, Frege would not approve of that sort of sense attached to a proper name. (2;138). It means that a person should know about "Tokyo", concerning its streets, industries, markets, population, area, and so on. Dummett proposes that that person should have at least sufficient informations about the city so that he/she can correctly identify the object named as "Tokyo". Hence, the connotative aspect of proper name theory does not or should not require a complete comprehension of all the properties the bearer of that name possesses.(2;137). When somebody says "Taj Mahal"; at least he knows that it is a symbol of love and beauty, although he does not know too much else about it. As soon as a proper name is uttered, it not only denotes its bearer, but also conveys some sense. That is the sense Frege talks about.

He demonstrates that the sense of "the morning star" differs from the sense of "the evening star" even though both singular terms refer to the same object. Indeed, it makes sense, because the sense of "morning" and "evening" differ; however, the sense of "star" is common in both expressions. Here, again, the Fregean principle is applicable which says that the sense of an expression is determined by the sense of its constituents. Hence, the sense of "the evening star" and the sense of "the morning star" must be different.

Kripke frequently uses an example of the "H₂O = Water" and holds that "H₂O" and "Water" are rigid designators. He regards the

natural kind terms "Water" and "H₂O" refer to the same substance, but don't have any sense. It is easy to understand that "Water" refers to water, but I don't see how "H₂O" can refer to water, knowing this fact that "H₂O" is a molecular structure of the combination of two hydrogen atoms and one oxygen atom. When a person utters "H₂O" or "Hcl" or "Nacl", he does not refer to corresponding substances, rather he refers to chemical elements or chemical compounds. Nobody asks for "H₂O" when one needs a cup of water. Not only that, both names \in "H₂O" and "Water" - are generally used on radically different occasions. It is really incomprehensible that they don't possess any sense. Quite contrary, our experience and our communicatory machinery witness against this view. Again, for Kripke, "e = mc²" is a necessary truth, but every student of science knows that the sense of "e" and the sense of "mc²" differ in a very significant way. With these examples, I would like to suggest that a proper name can be understood as having minimum denotation. Such that only one object with maximum characteristics/properties uniquely and rigidly be designated by it. A proper name is one which rigidly designates only one specific object in all possible worlds if that object possesses all essential properties, maximally.

In the first section, I tried to show that Frege had a similar notion of rigid designator to Kripke in his early work, particularly in *Grundlagen* (section 50-52), where he explicitly characterizes proper name as a name of a thing in all possible worlds. (see (3) and (4)). His implicit endorsement to Schroder's view further strengthens our belief. Although it was not so crystalized as Kripke presents. In the next section, I have discussed that Kripke does not touch the Fregean main claim that a proper name refers to its bearer via its sense. Although Kripke's argument against this view that proper names mean definite descriptions seems powerful, it is pointless. Dummett admits that we cannot give the sense of a proper name in terms of definite description, but he tries to show that Kripke's notion of rigid designation is obscure because counterexamples demonstrate that the usage of proper names and definite descriptions is not different in the modal context. I have observed that Dummett's criticism of Kripke is not well directed. In the final section, I tried to pin down the basic error in the no-sense theory of proper names and suggested that a synthesis of Fregean and Kripkean views would bring about a more comprehensive and plausible account of proper names.

In short, in my judgement, Kripke's account of proper names lacks a significant feature of the sense which has been envisioned by Frege.

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