

PROPER NAME AND SOME PROBLEMS OF
REFERENCE

THESIS SUBMITTED FOR THE DEGREE OF DOCTOR OF
PHILOSOPHY IN PHILOSOPHY (ARTS)
UNIVERSITY OF NORTH BENGAL

2014

SUBMITTED BY
DIPA BHATTACHARYA



UNDER THE SUPERVISION OF
DR. JYOTISH CH. BASAK

DEPARTMENT OF PHILOSOPHY
UNIVERSITY OF NORTH BENGAL

DARJEELING 734430

INDIA

STOCKTAKING-2011

Th
401
B575p

187318

02 MAY 2006



UNIVERSITY OF NORTH BENGAL

DEPARTMENT OF PHILOSOPHY

P.O. NORTH BENGAL UNIVERSITY, RAJA RAMMOHUNPUR, DIST. DARJEELING, WEST BENGAL, INDIA, PIN - 734430.
PHONE : (0353) 2582 103, FAX : (0353) 2581 546.

Ref No.....

Dated.....20.4.....2005

TO WHOM IT MAY CONCERN

This is to certify that Ms. Dipa Bhattacharyā has written her thesis on Proper Name and Some Problems of Reference under my supervision and I consider it to be fit to be submitted for the degree of Doctor of Philosophy in Philosophy. She has studied all the relevant materials and critically analysed it. I am satisfied with her presentation of ideas and research methodology she has applied in her research work.

Jyotish Ch. Basak
Dr. Jyotish Ch. Basak

Supervisor of the Research
Dept. of Philosophy
University of North Bengal

CONTENTS

PAGE NO.

1. Preface	I - iii
2. Introduction	1 -14
3. Chapter I	15 - 47
4. Chapter II	48 - 79
5. Chapter III	80 - 96
6. Chapter IV	97 -174
7. Chapter V	175 - 206
8. Bibliography	207 - 212

Preface

PREFACE

In contemporary philosophy right from the time of Frege and Russell one of the main concerns of the philosophers was to show how the proper name means something. Though the matter appears to be simple and non-problematic, a philosophical investigation reveals that it is not the case. In order to unravel all the niceties of this issue philosophers have propounded one after another theory. As it is not possible to discuss the entire gamut of this complicated issue within the limit of a thesis I have endeavored in the present venture to delimit my discussion. I have started from the theory of J.S. Mill and ended my discussion with the theory of comparatively recent solution given by American philosopher Saul Kripke. However, in philosophy no solution can be regarded as final and philosophers till dates are giving considerable attention to give a more satisfactory theory.

There was a time when J.S. Mill's view of proper name was to be regarded as a naive view of proper name. However, the new theory of reference has shown that it is not so naive as it appears to be. Frege did not have a very sophisticated idea of proper name. Even he does not distinguish between proper name and other expressions such as the definite descriptions. Still his distinction between sense and reference is regarded as a milestone in philosophy. Taking clue from Frege's theory Russell propounds more sophisticated theory of proper name. This is not to say that Russell borrowed his idea from Frege. In fact he was a vigorous critic of Frege's sense-reference distinction. However, his (Russell's) distinction between ordinary proper name and

logically proper name is a very crucial one. In the present work I have given elaborate explanation of the views of these three philosophers.

In the second half of the last century there was a new development. In the 1960's and 1970s Marcues and Kripke propounded a theory which has come to be known as the new theory of reference. There were some innovative ideas in their theories and that is why they received sufficient attention from the philosophers. Particularly their theory of rigid designators and causal historical theory are indeed of a new kind. I have devoted considerable space to discuss their views. Although these theories were initially given to solve he problem of reference later on it was found that they have considerable metaphysical implication. I refrained from discussing these metaphysical implications as they do not come within the ambit of the present work.

I would like to acknowledge the help and support to all who helped me in a range of ways while I was engaged in writing this thesis paper. Here I desire to pay my sincere gratitude to my supervisor **Dr. Jyotish Ch. Basak** for his valuable and illuminating guidance throughout my research work. Without his kind co-operation it could not be possible for me to complete this thesis.

Particular thanks to University of North Bengal for providing me with the University scholarship. I am grateful to the learned teachers of the Department of Philosophy, University of North Bengal for their sympathy and encouragement in my humble endeavor to complete the present work. A note of thanks to the Library stuff of North Bengal University, National Library, Kolkata and ICPR library, Lucknow for providing me with books & materials in photocopy for my present work.

I express my deep gratitude to my Grand mother, parents and parent's in-law without whose blessings and encouragement I could have never completed this work. The constant emotional support from the part of my elder brother Biplab, brother Jayanta and all family members was a source of inspiration.

A special mention must go to Subhas, my husband for his caring assistance and inspiration during the various stages of writing and editing. I am also thankful to my ten month old son, Sannidhya who has bear inconvenience from me during this period.

Dipa Bhattacharya
20.04.05.
Dipa Bhattacharya

Introduction

INTRODUCTION

Prof. Bimal Krishna Motilal in his book *The Word and The World* opines that if philosophy is an attempt to understand the world around us and if it is in terms of our language that we apprehend the world, then an understanding of how our language works would be almost the first step in studying philosophy.¹ But human language is a very complex phenomenon. Thinking is impossible without language. Hence by analysing language we can analyse our thought that are communicable by means of language. We use language to communicate thought because we have an implicit understanding of how our language works. This illustrates the importance of the philosophy of language.

Philosophy of language is concerned with philosophical questions about language. Traditionally, it includes, but it is far from exhausted by, the following questions: What, if anything, is meaning? Are there meaning? What is it for something to be meaningful? What is it something to mean such and such? What sort of attribute is the ability to speak a language? How does one learn to acquire it? What is conventionality? What is the relation between meaning and reference? How does one manage to use words, with pre-established meanings to refer to talk about particular thing?

These problems have come to be part of philosophy of language by a variety of routes, for example, question about language acquisition are clearly part of philosophy of language for historical reasons. Both Locke and Leibnitz provided lengthy and detailed treatments of language acquisition as an integral part of their treatments of other general philosophical problems. Since then, theories of language acquisition of more or less substance having important part of the works

of many philosophers down to and including Russell and Quine and so on.

As one would expect, linguists and psychologists have also been quite interested in question about how we come to speak a language. Given the *a priori* nature of philosophical work one might expect that the sorts of questions philosophers asks about language acquisition are radically different from those posed by linguists and psychologists. Answers to questions, as it turns out, in linguistics can have a profound effect on this area of philosophy of language, and through that on a variety of other philosophical problem that philosophers have connected with it.

In contrasts, the question, "Are there meanings, and if so, what are they?" would seem a prime candidate for purely philosophical treatment if anything were. It is surely a part of philosophy of language for more than historical reasons. But it has become clear that this is a question which cannot be answered without studying the technical apparatus available to linguists who study semantics and without studying the relation between that apparatus and what may be said in natural language.

Linguistics, in contrast to philosophy of language, is generally explained as scientific study of language. It is traditionally concerned with writing grammars and dictionaries for natural language, and with describing phonetic system.

There are of course, difficulty to draw a distinction between linguistic and philosophy of language. One such difficulty with the distinction is that it is far from clear which questions are generally about language and which are not. Formally, most if not all can be viewed the distinction between linguistic philosophy and philosophy of language is

that there are a number of traditional areas of philosophy of language which can only be treated satisfactorily by considering other areas of philosophy. When working in the areas it is difficult to say whether one is working on problems about language or not communicate thoughts because we have an implicit understanding of how our language works.

Any language is composed of words, which are combined to form sentences. But what is a word? A great deal of time could be spent in discussing competing definition. But for our present purpose, it will be sufficient to suggest that a word is the smallest unit of meaning. But what is meaning? Quine in his "Two Dogmas Of Empiricism" opine that the term meaning was not clear to us. Thus we come to face the problem of the relation between word and the thing that it stands for. Raising battles are still being fought over the issue what is the relation between a word and what it means. As a result we now have quite a few theories of meaning.

The main problems centering round the concept of meaning are: what does it take for a word or a sentence to mean what it means? How do we understand what others mean when they make use of words, phrases, or sentences? How do children learn meanings of words? How is the meaning of one term interrelated with meaning of others terms within a language? How do we correctly decide what the meaning of any particular word is? Do proper names have meaning? These questions have puzzled philosophers over the years and a whole tradition of philosophical thought has evolved as philosophers have tried to grapple with these questions.

We have seen that a sentence consists of words. Among these words most of the words those occupy the subject place of a sentence are names. But what is a name? Again this is a contentious issue in philosophy. Some philosophers, e.g. Hobbes, supposed, "names are

signs not of thing, but of our cognitions". Words are not the only things that can be signs; for instance a heavy cloud can be a sign of rain. This means that from the cloud we can infer rain. This is an example of a natural sign. These natural signs are to be distinguished from language proper, which consists of sound, marks, and other such significations. Animal noises come about by necessity, not by decision, as human speech does. That is why, on Hobbes's view animal though capable of imagery, and cannot reason; for reasoning presupposes words with meaning fixed by decision.

Philosophers have the tendency to suppose that every word in a sentence names something. That is why they look for the referent of the name. But when they think in this way it is like searching for the essence of the reference. They forget that the word reference has a variety of uses. Early Wittgenstein did not realise this though later Wittgenstein by rejecting the notion of essence could apprehend this point.

Among the various names that a sentence contains only some are proper names. The status of proper name was a contentious issue in philosophy since the days of Plato. The question that is raised about proper names are those if they refer how do they refer? Do they refer at all? And so on. There seems to be no doubt that adjectives and common nouns like red and table have sense or meaning, and the sense seems to hold fairly obviously for so-called definite descriptions like 'the red flower' or 'the man next to the table'. But what about proper names like 'Winston Churchill' and 'San Francisco'? Do they have sense in the same way that adjectives, common nouns and definite descriptions have sense? In the history of philosophy, answers to these questions have been crucial to answering the general question of how words relate to the world.

According to one widely held view, proper names simply stand for object, without having any sense or meaning other than standing for objects. An early formulation of the germ of this theory is found in Plato's *Theaetetus*, and the most sophisticated modern version of the view are found in Wittgenstein's *Tractatus Logico-Philosophicus*, and Russell's *Philosophy of Logical Atomism*. According to Wittgenstein the meaning of a proper name is simply the object for which it stands. Perhaps the most famous formulation of this no-sense theory of proper name is Mill's statement that proper names have denotation but not connotation. For Mill, a common noun like horse has both a connotation and a denotation— it connotes those properties, which would be specified in the definition of 'horse', and it denotes all horses. But a proper name only denotes its bearer.

The above one is a famous and attractive theory of name, but there are certain notorious difficulties with it. Frege pointed out such a difficulty. Sometimes one sees proper name in identity statement, statements of the form "A is identical with B". Frege pointed out that if proper name simply stands for objects and nothing more, how could such statements ever convey any factual information? If we construe such statement as solely about the referent of the name, than it seems they must be trivial, since, if true, they say only that an object is identical with itself. If on the other hand, we construe such statements as given information about the name, then it seems they must be arbitrary, since we can assign any name, we wish to object.

Frege's solution was that besides the names and objects they refer to, we must distinguish a third element, the sense of the name in virtue of which and only in virtue with it refers to the object. In the statement "The evening star is identical with the morning star", the expression "the evening star" and "the morning star" have the same reference but different senses. The sense provides the mode of

presentation of the object. The object is, as it were illuminated from one side at the sense of the expressions. It is because the two expressions have different senses that the statements convey factual information to us. What the statement conveys is that one and the same object has the two different set of properties specified by the two names. Thus such a statement can be a statement of fact and not a mere triviality. All proper names, for Frege, had senses in the way that the expressions “the evening star” and “the morning star” have senses. Later on we shall see that he used proper name in a broad sense.

The above one presents a completely different picture of proper name from the classical no sense theory. According to the classical theory, names, if they are really names, necessarily have a reference and no sense at all. According to the Fregean theory, they essentially have sense and contingently have a reference. They refer if and only if there is an object that satisfied their sense. In the first theory of proper name they are the special connecting links between words and world. In the second theory proper names are only a species of disguised definite descriptions — everyone is equivalent in meaning to a definite description that definite description which gives an explicit formulation of its sense. According to the first theory, name is prior to describing. According to the second describing is prior to naming, for a name only names by describing the objects its names.

Common sense seems to incline us toward the no-sense theory, at least as far as most ordinary proper names are concerned. Proper names are not equivalent to definite descriptions. Calling an object by its name is not a way of describing it. Naming is a preparation for describing, not a kind of describing. We do not have definitions of most proper names. Dictionary entries for proper name usually offer contingent fact describing the object referred to by the name. These descriptions are not definitional equivalence of the name for they're only

contingently true of the bearer. But the name is not "true of" the bearer at all. It is its name.

Not only do we not have definitional equivalent for proper name but also it is not at all clear how we could go about getting definitions of proper name if we wanted to. If, for example, we try to present a complete description of the object as the sense of the name, added consequences would follow. For example, any true statement about the object that used the name as subject would be analytic, and any false one would be self-contradictory. Moreover, the meaning of the name would change every time there was a change in the object, and the same name would have different meanings for different users of the name.

Such commonsense considerations weigh heavily in favour of the no-sense theory, yet it too encounters serious difficulties. First, it cannot account for the occurrence of proper name in informative identity statements. Second, it is similarly unable to account for the occurrence of proper names in existential statements. For example, in such statements as "There is such a place as Africa" and "Cerberus does not exist", the proper names cannot be said to refer, for no subject of an existential statement can refer. If it did, the pre-condition of its having a truth-value would guarantee its truth if it were in the affirmative and its falsity if it were in the negative. An affirmative existential statement does not refer to an object and states that it exists. Rather it expresses a concept and states that that concept is instantiated.

Thus if a proper name occurs in an existential statements it seems that it must have some conceptual or descriptive content. But if it has a descriptive content, then it seems Frege's theory must be correct, for what could the descriptive content be except the sense of the proper

name? The occurrence of proper names in existential statements poses another great difficulty for the no-sense theorists.

Another difficulty of the no sense theory is this. What account can the no sense theorists give of the existence of the object referred to by a proper name? If one agrees with the Wittgenstein of the *Tractatus* that the meaning of a proper name is literally the object for which it stands then it seems that the existence of those objects which are named by genuine proper names cannot be an ordinary contingent fact. The reason for this is that such changes in the world as the destruction of some object cannot destroy the meaning of the word, because any change in the world must still be describable in words.

About Singular terms

In English or any other natural language, the paradigmatic referring devices are *singular terms*, expressions which purport to denote or designate particular individual people, places, or other objects. Usually singular terms are contrasted with *general terms* such as "dog" or "brown" that can be applied to more than one thing. Singular terms include proper names (such as "Mahatma Gandhi", "Winston Churchill", "Kolkata", "3:15 PM", etc.), definite descriptions (such as "The Prime minister of India", "The Cat on the Mat", "The last departmental meeting ", etc.), singular personal pronouns (such as "You", "She", etc.), demonstrative pronouns (such as "this", "that",), and a few others. Almost all of these singular terms were the topic of philosophical discussion in the last century. This is not to say that the issue was not existent before last century. Actually philosophers right from the time of Plato try to address this problem. However, what we want to trace here is that various singular terms occupied the centre stage of discussion from the beginning of last century. For example, we find that Bertrand Russell is dealing with the problem of definite descriptions in his various

books. His effort to solve this problem is popularly known as the theory of descriptions. It is thought that it is by virtue of this theory that Russell ushered in the philosophy of language in the philosophical arena.

A closer scrutiny of all those that are included in singular terms reveal that the crux of the issue is what are the meaning of these terms. How, for example, does it come about that "Winston Churchill" means precisely what it does? How is it possible for those intrinsically inert ink-marks (or some associated stage of the brain) to reach out into the world and catch on to a definite portion of reality? Again, the way proper name behaves, definite descriptions does not seem to behave in the same way. The case is same with demonstrative and indexical terms. This issue, which might perhaps strike some as small and arcane, is on the contrary one of the most urgent of philosophical question.

Philosophers have propounded various theories in order to address the above problem, e.g., referential theory of meaning (i.e., it is the referent of the word that is meant by that word), ideational theory of meaning, and so on. But what is the problem is that all these theories can only explain or fit certain cases of events and unable to explain the remaining one. It is exactly due to this that an acceptable solution remained elusive uptill now.

The issue of proper name, definite descriptions, demonstrative and indexical each separately has vast literature. That is why it is not possible to discuss all these issues within the ambit of one thesis. That is why I have chosen only the issue of proper names. However, while discussing the issue of proper names other issues such as definite descriptions, etc. are bound to come, as these topics are interrelated. Whenever other related issues come up for discussion it will be due to making clear our main issue, i.e., proper names. In order to limit our discussion we shall ignore all those philosophers of ancient and

medieval time who gave their considered opinion on this issue. In most of the books we find that whenever there is any discussion on proper names of modern times authors usually start with J.S. Mill. However, I have come across some important reflections on this issue in Jermy Bentham's writings. We should not forget that J.S. Mill right from his childhood was a disciple of Bentham. Hence to my mind in order to understand Mill's theory of proper names we have to grasp Bentham's view first.

Development of the theory of reference

Several versions of the theory of reference were partly developed by several contemporary philosophers of semantics, most notably by J.S. Mill, Bretrand Russell, Keith Donnellan, David Kaplan, Saul Kripke, and Hillery Putnam. Russell's and Donnellan's early pioneering efforts were considered mainly with a common use of definite descriptions, the so-called referential use. They later paid attention to proper names and natural kind terms such as "water" and "tiger". Kaplan has begun to develop a theory of so-called indexical expressions, i.e., certain context sensitive expressions such as "I", "here", and "this". Putnam has made an effort to construct a theory of natural kind terms and physical magnitude term, e.g., "energy", which extends to artifact terms, e.g., "pencil". Kripke has formulated a widely discussed account of proper names, and he also extends his account to natural kind term and terms for natural phenomena, e.g., "heat". In spite of differences in scope and emphasis, these several theories bears striking similarity to one another, enough so that a sort of composite theory has been discussed as the "new" or "causal" theory of reference. To put it simply, this theory asserts that the referential expressions mentioned above are non-connotative appellations, and not disguised or abbreviated descriptions which achieve reference through the mediation of Freagean sense.

Since this theory asserts that certain expressions referred directly, this theory is called the theory of direct reference.

Kripke's paper on the subject has attracted the most attention. In the formulation of his theory of reference, Kripke puts forth a number of important and existing views, and supports them with artful very tricky and cogent argument. Fascinating issues that are related, often in an obvious way, to the theory of direct reference are raised throughout his discussions. From a relatively simple based --- the assertion that proper names are non-connotative appellations --- Kripke launches into issues concerning the reference of proper names in modal and epistemic context, the possibility of contingent *a-priori* truth and necessary *a-posteriori* truth, *de dicto* and *de-ree* modality, essentialism, and some other issue. Thus, although many of the issues, raised by Kripke involve concepts, familiar to philosophical semantics. Much of his discussion touches on issues that seem to belong more to metaphysics than to the philosophy of language. In our discussion we shall also try to have a cursory look into the metaphysical issues.

That Kripke is able to bring a relatively simple theory about the reference of proper names to bear on classical metaphysical problem is a testimony of the power of the theory. But the path from the philosophy of language to metaphysics is a slippery one. It is often difficult to tell whether one of the views being put forth is a straight forward consequence of Kripke's theory of reference, whether it is related to the theory of reference in some less direct way, or whether it is entirely and simply independent of the theory of reference. Sorting out this matter is a delicate task. It is often difficult to determine when an argument depends on and has obvious connection between related theses, and when it uses a non-trivial suppressed premise connecting what are infact unrelated and independent thesis.

The need to clarify the consequences of the theory of direct reference is especially pressing with regard to Kripke's espousal of essentialism (the doctrine that certain properties of things are properties that these things could not fail to have, except by not existing). Kripke's essentialism, as we shall show later, seems to go hand in hand with his theory of reference.

It is indeed surprising, at least in first thought, that a simple theory about a very basic aspect of language could have this much metaphysical import. A proper theory of reference, usually we think, should be concerned only with the nature of the semantical relations that hold between certain linguistic expressions and the objects for which they stand. It should be indifferent to the question of whether the objects referred to have certain of their properties essentially. However, it is worth investigating the extent to which essentialism is indeed a consequence of the theory of direct reference.

In the broadest sense of the term "name", names divide into two classes --- proper names and common names, these being species of singular and general terms respectively. Proper names are names of individuals, such as "New Delhi", "Napoleon", whereas common names are names of kinds of individuals, such as "city", "planet", and "man". Not all singular terms are proper names like indexical terms, definite descriptions. Again not all general terms are common names; for instance, adjectival or characterising general terms are common names; for instance, for adjectival or characterising general terms like "red" are not, nor are abstract nouns like "redness" and "bravery". Recently philosophical debate has focused on proper names much more than on common names (apart from the special case of natural kind terms).

About the theory of reference we usually get two views. One is known as the orthodox theory and another is the theory of direct reference.

The theory of direct reference takes as its point of departure a rejection of the orthodox, Fregean philosophy of semantics, urging a return to the naïve view held by Mill, and to some extent by Russell, that certain expressions, in particular proper names, are non-connotative appellations. The contrast between the orthodox theory and the theory of direct reference is clearest in the case of purported denoting expressions or singular terms.

On the orthodox theory, received from Frege, as we have seen, every singular term has in addition to its denotation, or the object denoted by the term, a sense, which is the manner in which the term presented its denotation to the listener or reader. Pairs of co-referential terms (i.e., terms having the same denotation) may present their denotation in different ways. Thus, for instance, the terms "the author of *Gitanjali*" and "the founder of Santiniketan" have the same denotation, Rabindranath Tagore, but differ in sense. The sense of a term provides a criterion for identifying the referent of the term, thereby determining who or what the referent of the term is to be. The *sense* of a singular term is something which a speaker mentally grasps or apprehends and which forms a part of any belief (or assertion, thought, hope) whose expression involves the term. The sense of a term is a concept, whereas the denotation or referent of a term is whoever or whatever uniquely fits the concept.

On the orthodox theory, all singular terms are assimilated to the model of a definite description (in attributive use in Donnellan's terminology).

The sense of the expression is usually thought of as supplying a set of conditions, or properties, and the denotation, in any, is whatever uniquely satisfies those conditions. The sense of an expression is often identified with a conjunction of properties. However, according to certain

refinements, of Frege's account, such as Searle's, an expression denotes whatever object best fits the conceptual representation contained in the sense. On this modified Fregean account, the sense of an expression is identified with "cluster of" properties, rather than a conjunction. Other refinements have been proposed, as for instance in Linsky, but each of these rival theories does little more than add fringes to the Frege's original scheme. The general picture of descriptive denotation modified by a concept consisting of properties remains essentially unchanged. The term expresses a concept, and the concept in terms determines an object, viz., whatever objects uniquely fit, or best fits, the concept. The denoting relation is thus an indirect relation between a term and an object.

Reference

1. Lal, B.K., *The Word And The World*, Oxford University Press, Delhi, 1990, p.3.

Chapter I

CHAPTER I

Some Tools of Reference

Reference to objects, to single objects as well as to objects in general, is undoubtedly an important component of all kinds of communication, including verbal; and of all the diverse forms of reference, *singular* reference, i.e., reference to one single, particular object as distinct from all others, seems to be the most fundamental. Even if it is not *the* most fundamental mode of reference, it is one of its most fundamental modes. In the present chapter first I shall discuss some aspects of the concept of singular reference – the concept of referring to one particular object, as opposed to referring to objects in general or to objects of a certain kind.

Let us discuss about the idea of singular reference in the context of an assumption which seems to be widely held among philosophers, at least was widely held until recently. This assumption is that there is a well-defined class of expressions that may be called 'singular terms', that singular reference consists in the use of such expressions, and that anyone who uses such an expression makes singular reference.

The class of singular terms seems to be ever swelling. It contains proper names ('John', 'Socrates', 'Bucephalus', 'London'), definite descriptions ('the author of *Waverley*', 'the present King of France'), singular pronouns ('he', 'she', 'it'), demonstratives ('this', 'that'), indefinite descriptions in some of their uses ('a man has given me the information'), and, besides these more familiar items, according to some philosophers, variables ('x', 'y', 'z', often associated with pronouns, as in Quine), sentences (treated as proper names of truth-values by Frege),

and 'that'-clauses ('that $2 + 2 = 4$ ' as a name or designation of the *proposition* expressed by the sentence ' $2 + 2 = 4$ '). I shall consider mainly three questions: first, *whether* they are referring expressions at all, second, if they are, *how* do they refer, and third, *what kind* of reference, if any, do they make.

Many philosophers have maintained that definite descriptions are referring expressions and that they can be used to make singular reference. Some of them have gone further by maintaining that they alone can be used to make singular reference, that all expressions which can be so used are in fact definite descriptions although they may not appear to be so. Those who have not gone to this extreme have maintained that these expressions – the expressions of the form 'the so-and-so' – constitute one among different kinds of expression which can be used for the purpose of singular reference. John Stuart Mill took this moderate view. Let us consider his view first.

Singular terms, says Mill, fall into two kinds: those which are connotative and those which are not¹. The non-connotative singular terms, leaving out the problematic case of abstract singular terms, are what are called 'proper names'. It is the connotative singular terms which are the definite descriptions (the terminology is not Mill's it is Russell's). What is characteristic of a connotative term, whether it is a singular term, like 'the man in the iron mask', or a general term, like 'man', as opposed to a term which is non-connotative, is that its denotation is determined by its connotation: the term implies, in some sense, a number of properties or attributes which constitute the necessary and sufficient condition of a correct application of the term to a particular thing (when it is singular) or to any of an indefinite number of things (when it is general). Since there are no such properties implied by a proper name, a proper name is a singular term which is non-connotative. Definite descriptions like 'the man in the iron mask' do

imply such properties. Associated with a definite description there is always a set of properties which constitute a condition both necessary and sufficient for a correct application of the term to a particular object.

This view of Mill regarding the definite description has the great merit of being simple and straightforward. A definite description is a referring expression, it is designed to make singular reference, and we can refer to a particular object, pick it out from among others, by its use *if and only if* that particular object has all the attributes the term implies. If there can be any common sense view on a subject like this, Mill's view, I think, can be called the common sense view of definite descriptions.

Gottlob Frege's view of definite descriptions belongs fundamentally to the same kind. Definite descriptions, classed by Frege with proper names like 'John', 'Bill', and 'Gottlob', have both sense and reference, and their reference is determined by their sense. We could say that this view is the same as Mill's *if we could straightaway identify sense and reference respectively with connotation and denotation*. But this we cannot. Sense, says Frege, is the mode of presentation² of the object which is the reference of the expression whose sense it is. It is not clear whether this mode of presentation of an object is a property or set of properties of the object. On the other hand, we know that Frege explicitly identified a property with a concept,³ and a concept, being, typically, the reference of a predicate, belongs to the realm of reference. But, if what Dummett⁴ says about Frege is right, the realm of reference and the realm of sense are exclusive of each other; and so, the *sense of an expression*, of a definite description in particular, cannot be a property. There are difficulties also in identifying Frege's reference with Mill's denotation. The reference of the predicate, as we have just noted, is a *concept* for Frege, but the denotation of a predicate, for Mill, is any *object* of which it is true.

These differences are not however extremely important for our purpose. It is possible to formulate a view that would be maintained by both Frege and Mill, and what is important is to consider whether *this* view is the right view of the character and working of a definite description. This view is as follows : every definite description embodies a condition expressible by an open sentence, and the definite description refers to an object if and only if the object satisfies the condition. This way of representing a definite description does not necessarily commit us to the Russellian view. Thus, the definite description 'the author of *Waverley*' embodies a condition expressible by the open sentence 'x authored *Waverley*, and it refers to Walter Scott because, by having authored *Waverley*' does not refer to Charles Dicknes because, by not having authored *Waverley*, he fails to satisfy the condition. The differences between the two philosophers, we can now say, lie in their differing *explanations* of how an object satisfies or fails to satisfy a condition, and thus belong to the ontology of satisfaction rather than to anything else.

This view of the working of a definite description may henceforward be called 'the Mill-Frege theory'. It must be kept in mind that the theory I am attributing to both Mill and Frege is only a theory about definite descriptions, and not about all singular terms. The case of a proper name may be very different. The sense of a proper name may not be definable at all in terms of any descriptive conditions.

This very general view that I have just attributed to both Mill and Frege can be contested on many grounds.

First, Keith Donnellan, partly anticipated by Leonard Linsky, distinguishes two uses of a definite description, and *attributive* use and a *referential* use, and argues that while in the former the reference of the



definite description is wholly determined by the condition it embodies, in the latter it is not so. I know that Smith has been murdered, and although I do not know who has murdered Smith, the fact that Smith was so lovable a man, together with the fact that the murder was so gruesome, prompts me to say, 'Smith's murderer is insane'. In this case, 'Smith's murderer' (i.e., 'the murderer of Smith') refers to a particular individual if and only if the individual satisfies the condition expressed in the open sentence 'x murdered Smith'. But the same sentence 'Smith's murderer is insane' can be used in a different way under different circumstances. Suppose that an individual is *accused* of Smith's murder and is put on trial, during which he behaves in a most abnormal manner. Referring to *this* man, I say, 'Smith's murderer is insane.' I intend to refer to a particular individual, the individual who is accused of Smith's murder, and my success in referring in this particular case does not depend upon the individual's satisfying the condition 'x murdered Smith'. It is quite possible that the accused did not murder Smith, and someone totally unknown did, and yet I succeed in referring to the man I want to refer to, the man under trial, and the person to whom I make this remark understands who I am referring to and does not suppose that I am referring to the real murderer, although, let us suppose further, he knows who the real murderer is. So, in this case, I am using the definite description to refer to an individual who does not satisfy the associated condition, and not to the individual who does. The first use of 'Smith's murderer', the attributive, thus, accords with the Mill-Frege theory, but the second use, the referential, does not.

The second ground on which the Mill-Frege theory can be contested is this. A definite description is an expression of the form '(ix) ox', in which we can distinguish two parts, '(x)', the uniqueness operator, and 'ox', the descriptive condition, the idea being that these two parts together accomplish singular reference to the unique individual (the x such that) which satisfies the descriptive condition ('ox'). But, we

can say, all that the uniqueness operator does is express an *intention* of the speaker to refer to an unique individual, in the sense that from the fact that a speaker or author uses it we can infer that he or she intends to make unique reference, and, obviously, this intention by itself does not ensure its own fulfillment. The intention expressed by ('x') can be fulfilled, if at all, by the descriptive condition 'ox', only if the condition is such that one and only one object could satisfy it. But the intention expressed by ('ix') cannot be fulfilled by 'ox'. Being general – *it is only to the general term that we can apply the definite article 'the' – ox'* stands for a condition which can be satisfied by any number of individuals and fails to pick out any single individual for the intention expressed by the uniqueness operator to be fulfilled. 'x murdered Smith' gives the hearer a condition which any number of individuals can satisfy, and so when he hears the speaker utter the expression 'the murderer of Smith', he can at most grasp the intention of the speaker to refer to a unique individual, but does not know anything about who that unique individual might be.

It must be admitted that there are example of descriptive conditions which seem to falsify this argument against the Frege-Russell theory. They are the descriptive conditions which, apparently, only one object can possibly satisfy. A good example of such a condition is 'x = 343×985'. Not more than one number can possibly satisfy it : it is *always* a *unique* number which is the product of two given numbers. However, we have to recall that the main point of our argument has been that it is only to a general term that we can apply the definite article 'the', and so the uniqueness operator cannot be applied to a condition 'ox' *unless* the condition is truly general. (The iota operator applies precisely to those expressions to which the quantifiers apply, and so do the class abstraction and lambda operators). So long as we do not find a conclusive answer to this absolutely general argument, we shall have to look with suspicion at those descriptive conditions which, like 'x = 343×985', seems to be satisfiable only uniquely. How can a condition

which is essentially general have this uniqueness about it? The conclusion which is derived from the existence of descriptive conditions like the above is not unavoidable. There may be — and we want to argue that there is — a difference between uniqueness and singularity, and so a descriptive condition may be unique and yet fail to be singular in the strict sense.

It should be noted that this objection to the Mill-Frege thesis does not apply where a referential, as opposed to an attributive, use is made of the definite description. And that is what it should be, because the referential use of the definite description is isolated just to show that the Mill-Frege thesis is inadequate for it applies to the attributive use alone. Taken together, Donnellan's objection and the objection we have just worked out amount to this : it is not the case that associated with a definite description there is always a condition which is either necessary or sufficient for an object to fulfill so that the definite description could refer to it. Donnellan's referential use shows that the condition associated with the definite description may be neither necessary nor sufficient for such reference — for it can refer to an object which does not satisfy the condition and can fail to refer to an object although it does satisfy it. What we have just said about the failure of uniqueness shows that it is extremely difficult to understand how any condition associated with a definite description can ever be sufficient to locate any particular individual uniquely.

The third ground on which the Mill-Frege thesis can be challenged is provided by a profound insight of Russell. What I have in mind here is not his celebrated theory of definite descriptions. This theory is in fact designed to show that an expression of the form 'the so-and-so' is not a referring expression at all, that it is an incomplete symbol having no meaning in isolation, that it can be eliminated altogether from the sentences in which they might happen to occur, and

that these sentences are existential sentences which do not involve any reference to any particular. Wonderful as it is in many ways, this theory is wrong at least on denying that definite descriptions are genuinely referring expressions. It is sometimes argued that, as it was done by Prof. Sen in his *Logic, Induction and Ontology*,⁵ Russell was wrong in supposing that since definite descriptions had some descriptive content, it could have a descriptive function only, and could not be used for the purpose of referring. But Russell got an extremely important point right. It is that even if the definite description is a referring expression, it is not possible to make *singular* reference by means of it if by singular reference we mean reference to some definite particular object which the speaker may have in his mind. This impossibility of making singular reference, let us call it failure of singular reference, is not to be confused with the possible failure of uniqueness to which our second objection calls attention. Uniqueness is not singularity. We may know that there is a unique object which satisfies a certain condition, even that there cannot possibly be more than one object satisfying it, without knowing *who* or *which* that particular object is. We know that there is exactly one number x such that $x = 343 \times 985$. The descriptive condition here is such that not more than one number can satisfy it. Still we do not know until we work it out, *which* that one and unique number is. What Russell wanted to emphasize is that in the absence of this knowledge we cannot *refer* to the object which satisfies the descriptive condition. He wanted to maintain that besides the purely semantical condition of *fit* – an object satisfying, and uniquely satisfying, some descriptive condition – there is another condition which has to be fulfilled so that the definite description may be used to refer to an object, *even* to the object which may uniquely satisfy the description. This other condition is *epistemological*. To be able to refer to an object, Russell maintains, in effect at least, the *identity* of the individual has to be known. And *this* can be known only in what he calls 'knowledge by acquaintance'.

It may however be said that Russell's epistemological requirement has nothing to do with the reference of the definite description *itself*. It only relates to the conditions a *speaker* has to satisfy so that he or she can make a singular reference to an object by means of the definite description. There is a difference between the reference made by an expression and the reference made by a speaker. The former is always determined, and determined exclusively, by the semantical condition of fit, even if the latter is not.

Now, it is true that there is this ambiguity about the term 'reference', an ambiguity which threatens the validity of many observations usually made on the nature and conditions of reference. But we need not worry too much about it if our question is what it is, viz. whether definite descriptions would ever allow singular reference. If the question is understood as a question regarding the reference of the definite description, it is a purely semantical question of fit, and then what stands in the way of singular reference is the essential generality of the descriptive condition. If, on the other hand, the question is understood as a question regarding the speaker's reference, it is also a question about the speaker's *ability* to refer, and then what stands in the way of singular reference is the failure of the epistemological condition, for the knowledge that an object satisfies the descriptive condition does not ensure any knowledge of the identity of the object even if the condition is specific enough to pick out an object uniquely.

It is not necessary, however, to go to the extreme of maintaining that *no* reference can be made by use of a definite description. But I think we have to accept that no *singular* reference can be made by its use. In the absence of a knowledge of the identity of the individual, what we can have is only a 'blind' reference (which would be like hitting a target in the dark). This blind reference is also a *general* reference, strictly speaking. To refer to the author of *Waverley*, without knowing

who the authors, is to refer to *whoever* wrote *Waverley*. But 'whoever' involves generality, in fact a universal quantification across possible worlds in which different individuals author *Waverley*. Since the definite description picks out *just one* individual in any given world it can be said to achieve uniqueness of reference. Nevertheless its reference fails to be singular, and remains general across possible worlds.

What we have discussed so far shows not only that the Mill-Frege theory concerning the working of a definite description as an instrument of reference is wrong ; it also shows that there cannot be any singular reference by means of definite description is used referentially then it can be used to make singular reference. This is right, but misleading on a very important point. It is right because it is not the case that a definite description always achieves reference *via* the descriptive condition. But it is misleading because it fails to take into account a very important point about our use of definite descriptions. In the case of a referential use it is not *necessary* to use a definite description; instead of using it we could use a proper name, or a demonstrative, or at least a different description from the one which we actually use. It is only in the attributive case that the use of the definite description becomes essential. And here the reference *is via* the descriptive condition and hence anything but singular.

The negative result that we have reached may be misconstrued. It may be taken to show that a speaker who uses a definite description can never get the hearer to identify the object of his reference. But this cannot be true. The hearer does quite often succeed in identifying the object of the speaker's reference. What is important is that even when the hearer does this, he does not do this by the help of the clue provided by the definite description taken all by itself. He has to depend upon the *context*. But matters of context are not *matters of semantical force*, and it is only with the latter that we are concerned here. Once we allow the

context to play its part in communication we need not, and do not, depend on any particular type of expression to achieve our goal.

This brings us to proper names. Can we treat the proper name rather than the definite description as the right instrument of singular reference? The reason why this seems hopeful is that what frustrates singular reference in the case of a definite description is its dependence on descriptive conditions which cannot but be general. A proper name, if it is what Mill took it to be, does not depend on any associated condition for achieving reference. It is related directly, if at all, to its object. So, either it refers to the particular object or it does not refer at all. This view of proper names has, however, been challenged by many, especially by Frege and his followers. Frege maintains that like a definite description, a proper name also has a sense, and it refers to the object to which it refers because of the sense, which it has. So, let us see whether we can accept the Fregean view.

There are mainly two kinds of argument which can be advanced against the Fregean view. The first is due to Mill. The correctness of the application of proper name does not depend upon the satisfaction of any condition (property, attribute) by an object. The second argument is due mainly to Saul Kripke. Frege failed to realize the peculiar role that proper names play in our language. A proper name is a means of presenting or getting at an object in a manner which enables us to raise, *with respect to any descriptive condition we wish*, the question whether or *not* the object satisfies the descriptive condition. There is thus *no* such condition which can be said to determine the very reference of a proper name. For, *if* there were any such condition, we could not have asked with respect to *that* condition whether or not the object fulfilled it. If 'Aristotle' means 'the teacher of Alexander the Great', *we cannot ask* whether Aristotle did teach Alexander the Great. Not only does a proper name enable us to ask with regard to a particular object whether or not it

satisfies a descriptive condition, it also enables us to say that a thing which satisfies such a condition *might* not have satisfied it.

What about Frege's basic argument for his view that proper names have sense? The argument is that the sentences :

(1) Tully = Cicero, and

(2) Tully = Tully

do not have the same cognitive value. The first is contingent and *a posteriori*, while the second is necessary and *a priori*. But Kripke has argued, rightly, that if both the names are used as proper names, i.e., as names of the *individual*, under any possible circumstance (in all possible worlds), then if the first sentence is true, it must be necessarily true: if Tully is the same as Cicero then the sentence asserts, let us say, Tully's self-identity : and Tully's self-identity is not a contingent matter of fact.⁶

But what about Frege's claim that the first sentence is only *a posteriori* while the second is *a priori*? We must realize that if the second sentence is *a priori*, it is just a derivation from the sentence '(x) (x=x)'. But in that case it is quite independent of any knowledge of *who* Tully is. In order to know who Tully is we have to know at least that 'Tully' stands for Tully. But this we cannot know without being able to identify Tully independently of the name and by empirical means.

So, we can dispose of the views which make the reference of a proper name depend on fulfillment of general conditions. And once we are able to do this we can restore singular reference to proper names.

One can certainly say, at this point, that it is unfair to ascribe to Frege any view which maintains that the reference of a proper name depends on the fulfillment of some general condition. Frege did hold the view that the reference of a proper name was determined by its sense, but did not identify this sense with any general condition. The sense of

an expression is the *mode of presentation* of the object which is its reference, and the idea of the mode of presentation of an object is not the same as that of any general condition the object has to satisfy. It is not necessary to enter into an exegetical controversy over the question of how sense was actually conceived by Frege. It would be sufficient to point out two things here. First, this interpretation of the Fregean sense in terms of the mode of presentation, in opposition to that of a descriptive condition, has been put forward (almost in a kind of hindsight, one could suspect) to defend Frege's view, that a proper name *as well as* a definite description has sense, against the objections raised in recent years by Kripke and others, with hardly any recognition of the following odd consequence : If this interpretation is right then we have to admit sense in the case of a definite description. For, this interpretation would have us say that while sense in the latter case *is* to be understood in terms of general conditions objects have to satisfy, sense in the former case cannot be so understood. (It is indeed unbelievable that Frege wanted to maintain that the sense of the definite description 'the least rapidly converging series' had nothing to do with the satisfaction of the condition 'x is a converging series'). Secondly, if the sense of a proper name is really made totally independent of the idea of a general condition the object does or does not satisfy, then it is not clear at all how sense can *determine* reference, how the sense of a proper name can help us in deciding whether or not it has a particular object as its reference. But, in that case, neither is it clear what the Fregean sense has to do with the question we have been trying to answer. (Also, there need not be any opposition either between Frege's view that a proper name has sense and Mill's view that it does not have any connotation.)

Are all referring devices singular? There is a tradition in philosophical logic and philosophy of language according to which all reference is singular. Bertrand Russell has done so much for bringing

this tradition into being that it would be quite appropriate to say that this is a Russellian tradition. People have now started looking askance at this tradition. The philosopher who argued very strongly against this tradition is P.F. Strawson, and many people have followed suit.

The Russellian tradition would have it that there is no non-singular reference – that all reference is singular. Russell thought in terms of the dichotomy of referring and describing, and this dichotomy is understood by him in the context of a simple (atomic) subject-predicate statement, the paradigm of which, for Russell, is a singular statement like 'This is scarlet'. The demonstrative 'this' in the subject position refers to an object, a patch of colour, and the predicate describes the same object. The predicate does not, because it cannot, refer; it only describes; on the other hand, the subject does not, because it cannot, describe, it only refers. Grammatically, a general term does occasionally occur in a statement in the position of the subject, which is the position for referring expressions. But we can always remove them from that position, and show that they are actually doing something other than referring to the thing or things of which the statement says something. This is true not only of general terms, which can simply be removed to the predicate position (from 'Tigers are dangerous' we get 'For all x if x a *tiger* then x is dangerous'), but any term which can be shown to introduce various elements – predicates, variables, quantifiers binding variables and identity. (From 'The author of *Waverley* is a poet' we get 'at least one x authored *Waverley*, and, for all y , y authored *Waverley* if and only if y is identical with x and x is a poet'). In fact, the same can be shown to be true of such (ordinary) proper names as 'Socrates' (which are disguised definite descriptions). The only expressions which can be said to refer are the expressions which *strictly* qualify for the position of the subject, by being irremovable, in theory, from that position. The only expressions that strictly qualify in this way for the position of the subject are the expressions that do nothing but refer. It is only a (*genuinely*) singular term which does nothing but refer. (All non-singular, general,

terms really describe; since they have a descriptive content, they can have a descriptive function only). But, of course, the kind of reference which a singular term is capable of making is singular. Therefore, the only kind of reference that is possible is the singular reference.

In fact, the tradition which acknowledges singular reference as the only kind of reference possible can perhaps be traced back to Frege. Although both the subject and the predicate in a typical subject-predicate statement are, for Frege, referring expressions, both of them refer to just *one* thing, the subject to an object and the predicate to a concept, and thus the reference is singular in either case. (Even if the concept itself is general, or universal, *reference* to the concept, as opposed to a range of objects falling under it, is singular, for it is a reference to one single entity. (Although redness is general, 'redness' is a singular term standing for one single property). There indeed are differences between the two philosophers: Frege did not believe, while Russell did, that the presence of some descriptive in content would necessarily disqualify an expression as referring; neither did he believe that this would render the reference non-singular. On the contrary, Frege believed that reference itself is possible only because of the presence of this so-called 'descriptive' content. (It is debatable whether sense is the same as the descriptive content, but that is the nearest thing to a descriptive content we find in Frege). There cannot be any reference without sense, maintained Frege. But, in spite of all these differences between them, both Frege and Russell can be said to have shared the belief that reference is always singular.

What is gradually becoming clear is that we should now break away from this tradition, which is also dying in any case. It is no longer generally accepted that all reference is singular. What we shall try to argue (briefly though) is that not only is non-singular reference possible, there actually are *various* forms, and not just one form, on non-singular

reference. But before doing that, we should like to make one or two remarks on the Russellian position.

Russell's mistake lay in the supposition that there is no difference between having a descriptive *content* and having a descriptive *function*. Thus, from the fact that the definite description has some descriptive content Russell jumped to the conclusion that it could not have a referring function, that it can never be used for the purpose of referring. But, certainly, his argument was a *non sequitur*. There can be an opposition between having a descriptive *function* and having a referring function, but there is no such obvious opposition between having a descriptive *content* and having a referring function. And, besides, on different occasions, and in different contexts, the same expression can, conceivably, have different functions as well.

Frege was also wrong, though for a very different kind of reason. He did not realize that there is a very important way in which the presence of a descriptive content *can* destroy the singularity of reference.

Let us first ask this question : Granting that Russell was wrong in denying that a definite description can ever have any referential use, what kind of reference can be made by a definite description? It might appear that since a definite description is, after all, a *singular* term – notice the definite article 'the' in the singular – if any reference is made by a definite description at all, the reference cannot but be singular. But this is not quite correct, not at least in an unqualified manner. Whether or not the reference by use of the definite description is singular really depends upon what *kind* of use it is put to. Recalling Donnellan's distinction between the (purely) referential and attributive uses of a definite description, we can say that, if the use to which the definite description is put is (purely) referential, the reference which is made by it is singular, but if, on the other hand, the use to which it is put is *attributive*, the reference is in a very important sense *general*.

It is necessary to remove at the very outset one possible misunderstanding about Donnellan's distinction itself. The terminology of 'referential' vs. 'attributive' use might suggest that when a definite description is put to an attributive use, no reference is made with it. (What else could be the significance of the *opposition* between the referential and the attributive uses?) But Donnellan's terminology is a little misleading, and one should not depend exclusively on this terminology to be clear about his meaning. A careful reading of the relevant passages makes it clear that the referential/attributive distinction Donnellan is talking about is really a distinction *within* a broader distinction between the referential and *non-referential* uses, and falls under the kind which is referential (in, perhaps, a broader sense). The use which *is* called 'referential' by Donnellan is really *purely* referential, in the sense of having no other function than that of referring; while the use which he calls 'attributive' is not purely referential, since it does not have the function of referring *alone*, but has some other functions as well. So the distinction to which Donnellan is trying to call our attention is a distinction between two kinds of *referential* use, one, the purely referential, and, the other, not purely so. I am ready to concede that Donnellan himself was a little uncertain over this and might have been responsible for the misunderstanding that in the so-called attributive use we have a use which is totally non-referential. But note the following points:

First, Donnellan accuses not only Russell, but also *Strawson*, for having failed to realize that there is a use of the definite description which *he* calls 'referential'. (Isn't it Strawson who insisted against Russell that a definite description *is* a referring expression, an expression which can be, and often actually is, *used to refer*?).

Second, both the referential and attributive uses of the definite description have a presupposition, or implication, of the existence of a thing answering to it. (Isn't the presence of existential import, whether by

way of presupposition or by way of implication, a sure mark of a referential use?).

Third, Donnellan himself says, 'If there is anything which might be identified as reference here [i.e., in case of an attributive use], it is reference in a very *weak* sense – namely, reference to *whatever* is the one and only, 0 if there is any such'.

But, certainly, what is more important is not what Donnellan says about the distinction he himself draws, but what this distinction actually implies; and one of the things it does imply is that the attributive use is also referential in a very basic sense. The best evidence in support of this conclusion is that, like the referential use, this use also has an existential import. Given the utterance of the sentence 'Smith's murderer is insane' in which the definite description 'Smith's murderer' is used attributively, we can infer, by existential generalization, 'Someone is insane (whoever that someone may be)'. i.e., that there is at least one x such that x is insane.

Thus the difference between the referential and attributive is *not* a difference between the presence and absence of reference, but between two different *kinds* of reference. It is necessary, then, to be clear about *this* difference, and to try to be clear about whether this difference throws any light on the question of the possibility of non-singular reference.

Let us begin by characterizing Donnellan's referential use. The following are the essential features of a referential use:

(a) A (purely) referential use tolerates inappropriateness of the descriptions. In Donnellan's example, the description 'Smith's murderer' may be inappropriate for the man accused of Smith's murder, and now standing in the dock – he may be quite innocent of the crime – but I may

still manage to refer to him by using it in the utterance 'Smith's murderer is insane'.

(b) This use relates only to what the speaker has in his mind. If the speaker has in his mind the man in the dock when he makes the utterance, then it does not matter whether the man is in fact Smith's murderer, the speaker *is* referring to the man in the dock. On the other hand, the speaker is *not* referring to the man who may have actually committed the crime, for it is not he who the speaker has in his mind.

(c) A (purely) referential use is always what is sometimes called 'sighted' (as opposed to 'blind'). This means that the speaker knows *who* he is referring to by his description. In the example, the speaker knows who, i.e., which particular individual, he wants to describe as insane. It is only because he knows the individual identity of his object of reference that he can have the object in his mind and can make a purely referential use with respect to it.

(d) Another important feature of this use of the definite description is that the *choice* of the definite description, i.e., of the particular description which is chosen, rather than any other, is not essential for what is said. It is not essential for reference to go through, for the speaker could have used some other description than the one which he chooses and yet succeed in making the reference. (He could have used 'the man *accused* of Smith's murder', or 'the man standing in the dock', or 'Mary's brother, in case the speaker knows that the individual he has in his mind satisfies all these descriptions, or even by the name 'Jones' in case he knows that is his name). But this is only one side of the vacuity of the choice of the definite description. The choice is vacuous, i.e. inessential, in another way too. It is not necessary for the speaker to choose the particular description he does in order to say what he wants to say about the individual his description is supposed to pick out. In Donnellan's story there is no (essential) connection between referring to the man in question and his being described as insane. (It is not

because the speaker thinks that he is Smith's murderer that he considers the person to be insane).

We should make special note of the fact that in case of a purely referential use of the definite description the use of the definite description is inessential not only in the sense, as I have explained, that it is not necessary to use the particular definite description which is used, that the speaker could have used some other definite description as well. Use of the definite description is inessential here in a more fundamental sense, in the sense that it was not necessary for the speaker to have used *any* definite description at all. Instead of using a definite description, the speaker could have used a proper name. (Maybe he does not know the name of the man standing in the dock, maybe he thinks the hearer does not know it, but that certainly is irrelevant to the point I am trying to make here). As we shall see, this is one other respect in which the referential use differs from the attributive.

(e) Closely connected with this inessential character of the occurrence of a definite description used (purely) referentially is the fact that a definite description used in this manner can be replaced by any other definite description having the same reference, *salva veritate*.

(f) Finally, and most importantly for our purpose, a (purely) referential use of the definite description results in a *singular* reference. The speaker has a particular individual in his mind, and he wants to make reference to *that* individual, and to no other; and if the circumstances are favourable, he will also succeed in making his hearer pick out that particular individual as the object of the speaker's reference. (So long as the hearer has not done so, he has not been able to pick out the *right* object, the object the speaker is talking about.)

An attributive use of a definite description differs from the (purely) referential in all these respects, in spite of the fact that it too is referential in the basic sense. The essential features of the attributive use are the following.

An attributive use does not tolerate any inappropriateness of the description. It is of the very essence of this use that it refers to *whatever* object satisfies that description. If I say that *the inventor of the easy chair* is a genius, being ignorant, like all else, of the identity of this inventor, and meaning that he is a genius *by virtue* of having made such a clever invention, I make a typically attributive use of the definite description 'the inventor of the easy chair'. Since what I mean here is just that *whoever* is the inventor of the easy chair is a genius, my sole purpose of referring by means of the description is to refer to the inventor, if at all there is any such inventor, and to nobody else; and hence there cannot be any possibility of referring to an individual by its means even if the description is inappropriate for the individual.

(a) In an attributive use the speaker does not necessarily have any particular individual in his mind. In order to have a particular individual in mind, the speaker must know the identity of the individual, he must know *who* that particular individual is. What is characteristic of an attributive use is that it does not demand any such knowledge on the part of the speaker.

(b) What we have just said means that an attributive use need not be sighted, it can well be blind. If I make a reference to the inventor of the easy chair, I do it without knowing who that inventor is.

(c) It is also obvious, when we think about it, that the choice of the particular definite description is not vacuous in the case of an attributive use, or, to be more precise, it is not in general so. The only way in which

I can refer to the inventor of the easy chair is by using the phrase 'the inventor of the easy chair' or some other equivalent phrase; for the only thing I know is that there is a unique inventor of the easy chair, and not only do I not know the identity of the inventor, I do not know anything *else* about the inventor, which means that I do not know what other definite descriptions that individual satisfies. It is thus quite essential for me to use the definite description that I do.

(d) In the most distinctive cases, though not in all, the attributive use introduces a 'by virtue of' – clause (Smith's murderer is insane by virtue of being Smith's murderer, and the inventor of the easy chair is a genius by virtue of being the inventor of the easy chair), a definite description which is put to this use cannot be freely substituted, *salva veritate*, by any and every description just on the ground that it is co-referential. Smith's murderer is Mary's brother, but while Smith's murderer is insane by virtue of being Mary's brother. (This, by the way, shows that we can delink existential generalization from substitutive : since the attributive use is *also* referential, we can have an existential generalization over a term which is used attributively, but, as we have just seen, we cannot in general substitute a co-referential term for it without affecting the truth-value).

(e) Finally, and most importantly for us, an attributive use of a definite description cannot result in a *strictly* singular reference. There is an essential generality about any reference which can be made by such a use of the definite description, and that follows from everything that we have said so far. It is necessary to be clear about this now.

To be quite clear about the functioning of a definite description used attributively, we have to hold the following points together.

(i) The definite description is used to refer, even though it is used attributively. (The fact that the use is attributive prevents it from being *purely* referential; and it may present the object of reference in a certain manner which is essential for what is being said about it; but that does not prevent it from being referential).

(ii) The reference, although it is made by a term which is apparently singular, is in a very important way general. The speaker does not have any particular individual in mind when he says that Smith's murderer is insane. Circumstances may even be such that he cannot possibly have any particular individual in mind: he may not know *who* Smith's murderer is, and his reference to the murderer may be *blind*. And the point is that for what he is saying knowledge of the identity of the murderer is not essential. He does not actually care who, in particular, can be blamed for the murder for what he is saying is that *whoever* has committed this is (must be) insane: his judgement is provoked by the nature of the crime itself and not by the identity of the criminal. The only condition, therefore, which an individual has to satisfy to count as the referent of the phrase 'Smith's murderer' is the condition which the phrase itself embodies, i.e., the individual must have committed the murder. As far as the speaker's utterance goes, *any* individual might have committed it, and, so, any individual might have been the referent of the definite description. This is the generality essentially involved in the reference which could be made by a definite description used attributively.

(iii) But this generality is not to be equated with the kind of generality which Russell ascribed to all statements involving definite descriptions. The generality which Russell had in his mind is the generality of an existential proposition; he thought that, basically, we assert the existence of a thing, which satisfies a description – and that is the real import of any statement containing a definite description. And it

is precisely here that Russell went wrong, and the generality we are talking about differs from the generality Russell did not have generality of *reference* in his mind, a definite description is not a referring expression at all). The speaker does not assert the *existence* of an individual which simultaneously satisfies the condition of being Smith's murderer and being insane. What the speaker asserts is that *the murderer is insane, having presupposed*, as both Frege and Strawson saw clearly, that he exists. The generality we are talking about is also different from the generality which would be involved in any reference by a straightforwardly general term. If the general term can at all be used for the purpose of referring. The definite article which is an integral component of the description imposes a certain restriction that prevents it from having what we can call strong or 'full-blooded' generality. The point of the definite article is that there is just one individual who satisfies the condition of being Smith's murderer. So what the speaker means when he says that Smith's murderer is insane is not that there are (indefinitely) many murderers of Smith, and each one of them, by virtue of being so, is insane. That is what the speaker would mean if he said 'All Smith's murderers are insane'. What then is the kind of generality of reference introduced by the attributive use of the definite description? It is, I think, generality *through possible worlds*, to borrow a convenient term from the semantics of modal logic. Any possible world, including the actual, would contain just one individual satisfying the speaker's description, if at all, but different possible worlds could contain different individuals satisfying it. So what the speaker says is something like this: For all w , if w is a possible world, and there is one and only one individual x in w such that x has murdered Smith, then x is insane (in w).

This generality through possible worlds – in no world does the term refer to more than one individual, but it refers to different individuals in different worlds – is admittedly weak generality, and *not* strong or full-blooded generality. Votaries of the thesis that all reference

is singular can say that this is the most that we can achieve by way of generality or reference. We can never have full-blooded generality of reference. But many opine that it is a mistake.

We shall first take a quick look at some of W.V. Quine's fascinating ideas.

Whether or not they are the only instruments of reference, singular terms, proper names, and definite description, being the most important of them, have always been regarded as important items, indeed the most primitive items, of our referential vocabulary. But Quine was out to eliminate them⁷ from the canonical notation of the first order predicate calculus (with identity). First the definite descriptions were eliminated in the manner taught by Russell, and then, alternative devices were suggested to eliminate the proper names too. (Thus 'Plato is a philosopher' becomes 'There is at least one x such that x Platonizes and x is a philosopher'). The question which inevitably arises as soon as all singular terms are eliminated is whether any reference would at all be possible now. A view largely shared by philosophers is that of all the terms which can at all be used for the purpose of referring, the singular terms are the basic, in the sense that all reference that we make with other kinds of expressions has finally to be cashed in terms of the reference made with the singular terms. ('Man' refers to men, if at all only because 'Socrates' refers to Socrates, and 'Plato' refers to Plato). Now, if following Quine's proposal we do eliminate all singular terms from the already sparse notation of the first order logic, will this notation enable us at all to make any reference? If it does not, then it would appear that all connection between this notation (language) and the world is snapped to the extent that we won't any longer be able to talk about the things of the world. What makes matters even more serious is that this notation (the canonical notation of the first order predicate calculus with identity) is claimed by Quine to be adequate for all, or at

least most, of science. This seems to have the disastrous consequence that our science will have no connection with the world of things, and will not tell us anything about it. Quine is not unaware that people may have such worries. He thinks that such worries are groundless, having their source in the mistaken idea that only the singular terms can do the job of referring. Bound variables, variables bound either by the existential or by the universal quantifier can do the job of referring. So if the singular terms are removed from the language, the language does not necessarily lose all its connection with reality, or its power of referring to the things which constitute it. In fact, Quine thinks that the primary instrument of reference is the bound variable. The bound variable is of the nature of (relative) pronouns, and it is the pronouns which do the job of referring in our language (not only in the language of logic) at the primary level. It is a superstition, he tells us, to suppose that the nouns (typical instruments of reference) precede the pronouns. In fact, it is the pronouns, which precede the nouns, and, so, he advises us to change our terminology and call the nouns themselves 'pro-pronouns'⁸.

There are many things in Quine's doctrine that are questionable. But we are not going to discuss this. We should like rather to concentrate on those aspects which are incontrovertible. They are also aspects which have remained rather neglected. Quine is right in maintaining that bound variables have a referential function, that they also provide us with a means of saying things about the world, or the objects in the world. Given the open sentence ' Φx ', where ' Φ ' is any predicate whatever, what exactly is the significance of adding the universal quantifier 'for all x ' to it? What do we say in the quantified sentence 'For all x , Φx '? I think that what we say is that the things (individuals) variable ' x ', are such that all (i.e., each one) of them is Φ . If we add the existential quantifier to the same open sentence, resulting in the closed sentence 'For some x , Φx ', what we say is that the individuals that are the values of the variable ' x ' are such that at least one of them is Φ . (This is a slightly misleading way of explaining the

meaning of the quantified sentence, for it represents it as *mentioning*, rather than actually using, the variable. But I pass this over as a technical difficulty which we may ignore for the time being in a formulation which has the merit of being intuitively clear. But this is indeed a mistake for we are talking now in the context of what is called 'objectual' quantification as opposed to the 'substitutional'.) So it seems that whether we are asserting an existential or a universal proposition, so long as we are obtaining our closed sentence by binding the variable ('x'), we are talking about the objects that constitute the values of the variable – the same range of objects on both the occasions. Binding variables is a way of talking about their values. This is the sense in which we *can* say that bound variables are used to refer. Whether or not this reference by means of bound variables is enough to exhaust all the kinds of referential moves made in our language, whether or not this kind of reference can have a life of its own, absolutely independent of reference by means of singular terms, I have no doubt that we do make reference to the objects when we bind variables by quantifiers, and these objects are the objects that constitute the values of the variables.

Granting that Quine is right in concluding that bound variables are used for the purpose of referring, let us ask the question 'What kind of reference is it used to make? Let us ask, in particular, whether it is a singular reference, or a general (non-singular) reference which is made by means of the bound variable. I think it is pretty obvious that we do not make any singular reference by the variable 'x' either in the phrase 'for all x' or in the phrase 'for some x'. The reference must be non-singular, and we can say right away that it is general at least in this sense. But it would be instructive to inquire into the exact nature of the generality we have here.

Let us note first that what refers is the *variable* 'x' which occurs either in the phrase 'for all x' or in the phrase 'for some x', and *not* any of these phrases themselves. It is the variable itself which is made to refer,

by being bound by a quantifier, whether it is the existential or the universal quantifier. (It is the variables that range over the values, in the only sense in which a variable can be said to stand for anything at all. So if any reference is made to these values of the variable, then it is by means of the variables that the reference is made). It is true that the variable does not refer in isolation; it refers only in so far as it is bound. But, nevertheless, it is the variable which refers. Quine's use of the phrase 'bound variable' for what refers may mislead one into thinking that it is the result of binding the variable, the whole phrase, which refers; but, in fact, what refers is not the result of binding the variable, but the variable as a result of binding.

We have to note next that if it is the variable which refers, then what refers in the case of existential quantification is no different from what refers in the case of the universal, for it is the same variable which is bound, though in two different ways. One may, of course, say that although the variable is the same in both quantifications, because of the difference between the two quantifiers involved, what the variable refers to in one case is different from what it does in the other. But this, again, is a mistake. The quantified sentences 'for all x , $o x$ ' and 'for some x , $o x$ ' say, respectively, because of the significance of the variable as an *individual* variable, that *every individual is o* , and that *some individual are o* . Are we talking of different things in these two statements, or are we talking of the same things (s), but are saying different things about them? We can take help of a traditional insight at this point. The two propositions 'all philosophers are intellectuals' and 'some philosophers are intellectuals' will be said, rightly, by the traditional logicians to have the same *subject*. The crucial argument is that otherwise the two propositions 'All philosophers are intellectuals' and 'Some philosophers are not intellectuals' will not stand in the relation of contradiction to each other; neither will various other logical relations obtain between different propositions involving the terms 'intellectual' and 'philosopher'. So in both of them we say something, a different thing in each case, for sure,

about the same things, namely, philosophers. In exactly the same manner, we shall have to grant that in both the propositions 'for all x , $o x$ ' and 'for some x , $o x$ ' (meaning, respectively, as we have just pointed out, that every individual is o and that some individuals are o), we talk about the same things, *individuals*. What we say is different in each case: in the first case we say that each of the individuals is f , and in the second case that at least one of them is so, but we say both these things about the same subject, namely, individuals.

Let us ask now a really interesting question: What is this identical thing (subject) about which we make these two different statements by means of quantification? We have said that it is *individuals*. But what does *that* mean? Does it mean that we are referring to each and every individual that falls within the range of values of the variable? Surely not. We do not mean so say about *each* of the individuals that each of them (or, it?), or that some of them (or, it?) is/are o . We cannot really mean that, for that is actually nonsense. Neither do we want to say – and this is perhaps ever more obvious – that at least one of them. Or a plurality of them is such that each of them (it?), or a plurality of them (it?) is/are o . That does not make any sense either. So we shall have to say that what we are talking about is *individuals in general*, and that is different from talking either about each or at least one individual. We shall have to recognize the concept of *individuals in general* as a distinct concept; and we shall have to try to understand the generality introduced by bound variables in terms of this concept.

Let us conclude this part of the discussion by noting these two points:

(i) The generality I have just spoken about is the generality that is indicated by *the indefinite plural*. It is nice that logicians are now paying attention to the behaviour of these devices of language. It may well be that the basic theory of generality will have to take its start from here.

(ii) If we are talking in both the cases of quantification about the same subject, viz. the individuals, then the quantifier itself belongs to *what is said* about these individuals. In the one case, we say that *each one of them is o*, while in the other case, we say that *at least one of them is o*. This really means that the quantifier belongs to, indeed, is *part of* the predicate, a consequence we have perhaps, and not anticipated at all. It would be worth our while to consider in this connection some of the things Frege says about the quantifier.

Let us pursue for a while the idea of the general reference involved in the use of an indefinite plural phrase.

We have seen that the full-blooded generality afforded by the use of bound variables is really the generality of the indefinite plural, i.e., the generality of the phrase 'the values of the variable "x", or, what is the same thing, 'individuals in general'. If this is so, there is no reason why we should not achieve generality in every case where the same kind of use is made of an indefinite plural phrase; there is no reason why, to achieve generality of reference, we should always have recourse to a bound *variable*, which is the most *generic* (and abstract) kind of indefinite plural we can have. Why should we necessarily fail to get generality of reference by the use of more specific, but still general, terms like 'man' and 'philosopher'? Each of the statements 'All philosophers are intellectuals', 'No philosophers are geologists', 'Some philosophers are not poets' can be shown to involve the indefinite plural 'philosophers' by the following paraphrases:

For the first: *Philosophers* are such that each one of them is an intellectual.

For the second: *Philosophers* are such that none of them is a geologist.

For the third: *Philosophers* are such that at least one of them is a mathematician.

For the fourth: *Philosophers* are such that at least one of them is not a poet.

And in each of them, we can say, the expression 'philosophers' is used to make a reference to philosophers in general, and, hence, a general reference; and in each of them the rest of the sentence, including the device for quantification is used to say something about this subject.

The only thing that stood in the way of saying what we have just said about the use of the plural term 'philosophers' is the general stricture against non-singular reference as such. Now that this stricture has been removed, we can feel free to say what we have said. Not only that, we can also say in defense of the traditional Aristotelian logic, and in support of Strawson's defense of that logic, that all the four statements noted above are *categorical*, and not conditional, as the Russellian restriction of all reference to reference by means of singular terms would have us say:

If the claim of the indefinite plural phrase as a device for making general reference is accepted, we can try to make a cautious approach to the thesis that in every case general reference in the full-blooded sense is, basically, the reference made by means of such a phrase; we can try to find out whether it can be maintained that whenever a statement involves a full-blooded general reference, the purely referential component of the statement consists on the (explicit or implicit) use of the indefinite plural, like 'philosophers' in the examples considered. There is, I think, much in favour of the thesis in question to feel optimistic about its prospects. Like the ones given above, the following paraphrases also sound plausible:

Of '*Many* philosophers are naturalists' into 'Philosophers are such that many of them are naturalists'; of '*Most* philosophers are non-conformists' into 'Philosophers are such that most of them are non-conformists'; of '*A few* Philosophers have been practicing physicists' into

'Philosophers are such that a few of them have been practicing physicists'; and of '*Ten* philosophers attended the conference' into 'Philosophers are such that ten of them attended the conference'.

If these paraphrases are correct, then the theory of the indefinite plural can well form the basis of a theory of numerical statements, and, thus, of a theory of number. In terms of this theory we can also look afresh at and try to answer the questions which all philosophers want to answer; viz. 'What is number?' and 'What is it that a number is a number of?'

Reference

1. John Stuart Mill, *A System of Logic*, Longmans, London, 1875, pp. 19-26.
2. Gottlob Frege, " On Sense and Reference" in *Translations from the Philosophical Writings of Gottlob Frege*, edited by Peter Geach and Max Black, 2nd edition, Basil Blackwell, Oxford, 1960, p. 57.
3. "On Concept and Object", *ibid.* p. 51.
4. Michael Dummett, *Frege: Philosophy of Language*, 2nd edition, Duckworth, London, 1981, pp153-54.
5. *Logic, Induction and Ontology*, Jadavpur Studies in Philosophy2, Macmillan, Delhi, 1980 pp.170-71.
6. Kripke, *Naming and Necessity*. Cambridge, Mass.: Harvard University Press.1980
7. P. F. Strawson, 'On Referring' in *Logico-Linguistic Papers*, Methune & Co. Ltd, London, 1971.
8. W. V. O. Quine, 'On What There Is' in *From a Logical Point of View*, 2nd edition, revised, Harper torchbooks, Harper & Row Publishers, New York, 1961, p. 13.

Chapter II

CHAPTER II

Frege's Doctrine of Proper Name

In the writings of Frege we find that he did not have very sophisticated view of proper names. He has not given a precise definition of it. What he made by the term "proper name" can be explicated by his use of the term 'object'. An object is the referent of a proper name. Moreover it is also claimed that his use of the term "proper Name" does not draw any distinction between a proper name and a definite descriptions. To put it more precisely, all singular terms are considered by him as proper names. Our view is substantiated by Dummett's claim. Dummett claims that Frege has not given any precise characterization of 'proper names'. He writes:

He (Frege) usually contended himself with using as a criterion the fact that an expression constituted a substantival phrase in the singular, governed by the definite article. He remained indifferent to the fact that this criterion would be inapplicable to those languages which lack a distinction of a or between singular and plural, or to those even more numerous languages which lack a definite article: and equally indifferent to the fact that, even in those languages to which the criterion is applicable, it is inexact in both direction.¹

But Frege, as Dummett also claim, did not propose merely a syntactical criterion of a proper name. The criterion is based on Frege's use of the term 'object'. Dummett claims that "... Frege's use of the

ontological term 'object' is strictly co-relative to his use of the linguistic term proper name.² So Frege's characterization of a proper name depends on his use of the term 'object'. His use of the term 'object', however cannot be explained without reference to his use of the term 'concept' and 'function'. Frege claims:

A concept (as I understand) the word is predicative. On the other hand, a name of an object, a proper name, is quite inapplicable of being used as a grammatical predicate.³

What Frege is saying is that a predicate expression refers to a concept or function, and a proper name refers to an object. From this it does not follow that a proper name cannot be part of a predicative expression. In the sentence "The morning star is Venus", the predicate is not simply "Venus", and the word 'is' is not merely the copula. The word 'is' means 'is no other than'. Hence the predicate is 'no other than Venus'. The later expression refers to a concept. The object denoted by the subject expression "The morning star" falls under the concept *no other than Venus*. In the sentence "The morning star is a planet", the predicate expression is 'a planet', which refers to the concept *planet*, and the object denoted by the proper name "The morning Star" falls under the concept *planet*. But in the sentence "The concept of *planet* is acquired from experience", the subject term 'the concept of planet' does not refer to a concept, but to an object. Hence the concept of planet in this context cannot be said to be a concept. This remark has puzzled several interpreters of Frege, under literature of this topic has grown over the last three decades. Some of the comments of Frege are also responsible for the controversy. He has not made it explicit whether he is offering a linguistic criterion or an ontological criterion, or an epistemic

criterion, or a hint for drawing the distinction between a proper name and a predicative expression.

In his article, "On Concept and Object" he says,

... the singular definite article always indicates an object, whereas the indefinite article accompanies a concept word.⁴

Again he says:

...I was not trying to give a definitions, but only hints.⁵

If the criterion of Frege is just a linguistic criterion then it is not universally valid. If it is just a hint, then he has not given any definite criterion for such a fundamental distinction between concept and object. Some scholars say that a definite criterion can be formulated from the use he has made of these terms. Let us consider his examples:

- (a) There is at least one square root of 4.
- (b) The concept square root of 4 is realized.

In both (a) and (b), he claims, the same thought is expressed, but in (a) we are saying something about the concept *square root of 4*, and in (b) we are saying something the object expressed by the proper name, "The concept *square root of 4*. This will be surprising only to somebody who fails to see that a thought can be spilt up in many ways, so that how one thing, now another, appears as subject or predicate.⁶ This remark of Frege suggests that the object concept distinction, at least in this case, depends on our manner of splitting up our thoughts. If this is considered as the criterion for the object-concept distinction, than it may be considered as an epistemic criterion. Let us have a cursory look of concept-object distinction.

Frege on Concept and Object

In order to say how did Frege confused between proper name and subject concept let us devote some time to his celebrated distinction between concept and object. A central theme, that becomes evident, in Frege's Philosophy of language that he develops in various ways in his writings is the importance for logic of taking the sentence as a whole as the basic item to be analyzed. In the *Foundations of Arithmetic*, he lays it down as a basic principle that it is only in the context of a sentence that a word has meaning. It is the thought conveyed by a whole sentence of which, when asserted, we can ask whether it is true or false, and so as having possible cognitive significance. The task of logic, in starting with whole sentences, is to examine the type of components out of which a sentence is constructed. It is important to see the underlying logical rule of this item and to be misled by superficial grammatical similarities or dissimilarities. Frege accomplished the disentangling of these logical components in a path breaking way. What distinguishes much of modern logic from traditional logic is the way sentences, in their internal components as well as in their interconnections in sequences of sentences to yield entire arguments, are analyzed.

As contrasted with a superficial grammatical distinction between subjects and predicates that underlay much of traditional logic, Frege distinguish between the linguistic expressions of concept-word and proper names. To accomplish this he showed the great importance of making a useful comparison between the idea of a mathematical function and its 'arguments' on the one hand and the logical idea of a concept in application of an object on the other hand.

One underlying thing in Frege's analysis has to do with the notion of *assertion*. A sentence can be, but need to be asserted. Consider, for

example, the sentence "Socrates is wise". The sentence is grammatically well formed. It does not violate any familiar rules of English grammar. Frege would say that this entire sentence has a sense. We understand it. The sense of a sentence as a whole Frege calls a *thought*. We can understand the thought expressed by this sentence without asserting it. In so far as the sentence is understood as expressing a thought it has an assertible content --- it would make sense to us whether it is either true or false. To assert this sentence is to use it to make an actual truth claim that the sentence is true. And to assert this sentence is to use the sentence with an assertoric force. Instead of assertoric force one might have given the same sentence an *interrogatory force*. Thus one might have asked a question by means of it: Socrates wise? Or by rearrangement of words, 'Is Socrates Wise?'

Frege makes a fundamental distinction in the analysis of the internal logical structure of a sentence between *concept-words* and *names*. Let us explicate his view as he works out this distinction. In his paper "Function and concept", written in 1891, Frege makes clear how one can employ the mathematical idea of a *function* as a model by means of which to arrive by analogy and generalization, at the important logical idea of *concept*. Concepts play a crucial role in a great variety of well-formed sentences, regardless of the subject matter with which these sentences deal.

Let us consider a simple example that Frege gives from the domain of arithmetic in which the idea of "function" makes its appearance. Let us take the following series of expressions, each of which stands for a number.

$$2. 1^3 + 1$$

$$2. 4^3 + 4$$

$$2. 5^3 + 5$$

The first expression designate the number 3, the second the number 132, the third the number 255. Frege points out that it is important to distinguish a numerical expression that stands for, signifies, or designates a number itself. To put it in general terms we distinguish sign for an object from the object itself, just as we distinguish the name Socrates and the person Socrates. Frege remind us that we must distinguish in a similar way numeral or numerical expression from the number it represents. Thus the numerical '7' stands for the number '7'. But the same number '7' would be respected by other symbols or expression, for example, 'VII, '2² + 3,' or '4 +3'.

In our example above each of the numerical expressions represents 3, 132, and 255. However, when we examine the three expressions given above (2.1³+1, 2.4³+ 4, and 2.5³ +5) we recognize in them a common pattern. Although it is common practice among mathematicians to use a 'variable number' x to convey this common pattern by writing, for example, '2.x³ + x'. Frege prefers to show what this common pattern is without making use of the notion of a variable number. Instead he would show the pattern common to the series of numerical expressions in our example as

$$2. ()^3 + ()$$

The blank spaces enclosed in each of the two sets of parentheses can be filled by various numerals, provided (for the above pattern) the numerical that fills the first parentheses also fills the second parentheses. Thus we can substitute '1' in each of the above parentheses and obtained the first of the above expression ("2.1³ + 1"), and so on. The placement of a particular numeral in each of the above blank spaces is known as providing a symbol in an argument place to

stand for an argument. What remains constant or invariant, even though the arguments may change from one example to the next, is the pattern " $2 \cdot ()^3 + ()$ ". This common pattern is known as the *function*. The same function appears in each of the three sets of expressions (" $2.1 + 1$ ", " $2.4 + 4$ " and " $2.5 + 5$ ") even though the arguments are different. Corresponding to a particular argument for the function under consideration, here is obtainable a particular numerical value 3: for the argument 4, it has the numerical value 132, and so on. The numerical value is the resultant of combining the argument and function.

Frege points out that in this way of analyzing what a function, argument, and numerical value are; we can say that a function is *unsaturated* (or incomplete). By itself since a functional expression consists in part of blank spaces, it cannot designate any particular number. The argument, however, so far as it is a particular number is complete and determinate. Similarly when one supplies a particular argument to a specific function, numerical value [a particular number] that is also complete whole. Thus the notion of a function carries with it the important idea of a common pattern. It however is not a definite number. A function [in the mathematical sense] may be thought of as that which, though not itself a definite number, nevertheless connects up or co-relates two things that are definite numbers, namely arguments and values.

With the foregoing background of how we are to think of the relations of 'function', 'argument', and 'value' in a mathematical context, Frege proceeds to exploit these distinctions for general logical or philosophical purposes. He shows how we can apply these distinctions to deal not only with expressions having to do with numbers, but how parallel distinctions among 'function', 'argument', and 'value', can be made in the logical analysis of language-uses in which are to be found descriptions or assertible sentences having to do with various types of

subject-matter. This will involve, among other things showing the close connection between the mathematical notion of a *function* and the more general notion of a *concept*. It will also involve going beyond the idea of a *numerical value* to achieve the notion of a *truth-value* for a sentence as a whole. In summing up the main points of these moves, Frege asks us to consider how closely that which is called a concept in logic is connected with what we called a function. Indeed, we may say at once a concept is a function whose value is always a truth-value.

Let us consider the expression whose general form is “the capital of _____”, where the blank indicates we may substitute the name of some particular political unit --- ‘India’, ‘France’, ‘the state of West Bengal’, and so on. The incomplete expression ‘the capital of _____’ represents the common feature the invariant form, in which we may put a name in the blank space. The expression ‘The capital of _____’ may thus be regarded as a function: in the present case the expression serves as a descriptive function. In the blank space of this *descriptive function* --- its arguments place --- one may put the name for an individual political unit (‘India’, ‘France’,). By itself the functional expression “the capital of ---” does not represent a particular political entity (object). Once we substitute in the appropriate argument place of this descriptive function the name of a political entity, we can then treat the resultant expression (the combination of the descriptive functional expression and the name in the argument place) as an expression that designated a particular object or entity --- this time a particular city. Thus when we put in the argument place for the descriptive function ‘the capital of ---’ the name ‘India’, we have the complete expression ‘the capital of India’, and *this* linguistic expression has as *its* value the city New Delhi. The entire related ideas of ‘argument’, ‘function’, and ‘value’ can now serve, by this mode of extension, beyond their pure mathematical uses.

Let us now follow Frege as he further extends that use of the model of 'function', 'argument', and 'value' to deal with other types linguistic expressions beyond the purely mathematical cases. Once such important extension has to do with the way we can examine entire sentence when used to make assertions. Consider the sentence 'Socrates is a philosopher'. Frege suggests that the sentence can be considered, for logical purposes, as made up of a functional part and an argument. One way of analyzing the sentence is to consider the expression '--- is a philosopher'. Where we have put in place of the name 'Socrates' a blank (an 'argument-place') while retaining the rest of the sentence ('is a philosopher'). Having done this, we can treat the entire expression '--- is a philosopher' as a function. Frege calls this kind of function a *concept*. The expression 'is a philosopher' stands for a concept. Instead of the name 'Socrates' we put, as Frege points out, use other name for individual objects --- 'Plato', 'Aristotle', '4', the 'Eiffel Tower', and so on. When we plug in the names of 'Socrates', 'Plato', and 'Aristotle' in the argument-place of this linguistic expression ('---is a philosopher') we obtain various complete sentences. For each of these resultant complete linguistic expressions (sentence) we can now ask whether it is true or false. Truth and falsity are the possible truth-values for the sentence as a whole. For the sentence 'Socrates is a philosopher' we obtain the truth-value 'truth' (and similarly for the complete sentence 'Plato is a philosopher', 'Aristotle is a philosopher' --- where 'Plato' and 'Aristotle' are the expressions in the argument-places for the same concept (function), '--- is a philosopher') for each of the aforementioned arguments (Socrates, Plato, Aristotle), with this function (concept) we obtained sentence whose truth-value is 'truth'. However, when we put in the numeral '4' or the name 'the Eiffel Tower' we obtain sentence whose truth-value is 'the false' (or 'falsity').

The expression '--- is a philosopher' is the incomplete or unsaturated part of a sentence which, when supplemented by the name or other designation for an object, yields a complete sentence whose true-value can be determined. The unsaturated part ('--- is philosopher') Frege calls a concept-word (*Begriffswort*). According to Frege, in order for the entire sentence to be capable of determination as true or false, the concept-word it contains must be given a clear and determinate meaning, and the expression used as argument-signs must designate some object, some individual entity. A concept-word is a linguistic expression: it stands for a concept: it serves as a predicate. However, a concept is, for Frege, something objective, not itself part of language. At the same time, a concept is not someone's idea, a mental occurrence or psychological event. That some object has a certain property --- falls under a certain concept (as Frege would put it) --- either is or is not the case, objectively. To say 'Socrates is a philosopher' is to say something about Socrates that he has the property of being a philosopher, or falls under the concept 'philosopher'. It doesn't tell us anything about someone's --- for example, the speaker's or hearer's-mental state. The *apprehension* of a concept is a psychological matter. However, the concept apprehended and the relations it bears to objects or other concepts are not a matter for psychological investigation.

What Frege call's 'concept-word' (*Begriffswort*) takes the place of what, in the older logic or in a simple grammatical approach would be called the *predicate* of the sentence. If we think of concept-word in Frege's sense as predicates, we must be careful to think of the term 'predicate' in the way he approaches the role of predicates in a perspicuous and logically correct restatement of the component parts of a sentence. A concept word is a predicate, but many expressions that would have been considered predicates in the older logic are not so for Frege, conversely what he assigns to a predicate role in his new logic

would not have been recognized as such in the traditional logic or in simple 'surface' grammatical analyses.

To summarize what has thus far been said about the use of concept-words: a concept-word is the predicative part of a sentence. As a predicate, a concept-word is to be understood in a logical rather than a psychological sense. It belongs to the use of language as analyzed and reconstructed to show its basic logical components. Frege does not use the term 'concept', as others do, to designate some part of the content of our mind, an image, or any other type of mental occurrence. Frege frequently use the term 'concept' in its narrower, special meaning, as synonymous with 'one-place predicate'. In this narrower use, 'concept' is differentiated from 'relation', since the later expression is typically used by him to stand for a binary (two-place) predicate. In its broader use, we could extend the use of the term 'concept' to include all type of predicates, whether one-place (monadic, unary), or many-place (polyadic). A concept-word (or combination of concept-words) is incomplete or unsaturated. By itself it does not constitute an entire sentence. It can be joined, however, with the name (or names) of individual objects to yield a complete sentence. Such a complete sentence is either true or false; the predicate (concept) is either *true of* or *false of* (applies to or does not apply to) the objects of which it is predicated.

With these preliminary points in mind, let us proceed, with Frege, to amplify and refine the analysis of the distinction between concepts and objects so far presented.

As already remarked a concept-word needs to be distinguished from those expressions, such as proper names, that designate individual object. A concept-word (or predicative expression) is incomplete or unsaturated. Whereas the expression designating an object is complete

or saturated. It follows from this that the name for an object could never serve, as such and by itself, as the predicative part of a sentence.

Further on Frege's analysis, the use of the word 'is' is not essential to marking the predicative part of a sentence. Although English contains the use of the word 'is', not all natural languages have equivalent words for 'is'.

Consider the sentences (Frege's example)

The morning star is Venus.

The morning star is a planet.

Although the word 'is' occurs in both sentences, it performs different roles in each. The first use of 'is' (in 'The morning star is Venus') marks the *identity* use of 'is'. The expressions 'the morning star' and 'Venus' that flank the word 'is' each designates the same object. Each expression serves as a *name* for an object. By itself, neither is predicative. In the sentence 'The morning star is a planet', the term 'is' is part of the predicate. The expression 'is a planet' stands for a *concept*. It is not a name for an object. The word 'is' (the copula) in this sentence is a sign of prediction.

Go back to the sentence 'The morning star is Venus'. We said the word 'is' is here used in its *identity* rather than *predicative* sense. However, as Frege points out, it is possible to rewrite the sentence containing the identity use of 'is' so that it takes on a predicative form. For this purpose the sentence 'The morning star is Venus' would be written as 'The morning star is *no rather than Venus*'. Now, however, the expression 'is no other than Venus' conveys a concept: it constitutes the predicate of the sentence. The name 'Venus' has been absorbed within the entire predicate ('is no other than Venus') and this predicate expression does not designate an individual object. Like all other

predicates, it too is unsaturated. It represents a concept that could be predicatively as a description (whether true or false) of any individual object. The word 'is' in the predicate 'is no other than Venus' is part of the entire predicative expression and so is a sign of predication. The predicative expression 'is no other than Venus' is still a *concept* even though only one object falls under that concept.

In the identity use of 'is', the position of the two expressions 'The morning star' and 'Venus' is interchangeable or reversible. We have a meaningful and equally true (or equally false) statement by writing 'Venus is the morning star' or 'the morning star is Venus'. However, given the sentence:

'The morning star is a planet'.

The expressions 'the morning star' and 'is a planet' are not interchangeable. (Let it be noted, by the way, that the sentence 'The morning star is *the planet Venus*'. The latter sentence employs the identity use of 'is', since the expression '*the planet Venus*' in Frege's usage is a *proper name* for a particular object.) The sentence 'The morning star is a planet' is not reversible since it makes use of the word 'is' in its predicative role.

The next point has to do with Frege's distinction between *falling under a concept* and *the marks of a concept*. Consider once more the sentence:

The morning star is a planet.

Following Frege, we say the expression 'the morning star' names an object, whereas the expression 'is a planet' is predicative and conveys a concept. Wherever we have a situation of this sort — where a sentence attaches a predicate expression to the name of an individual object — we can say *the object falls under the concept*. The notion of *falling under a concept* is Frege's way of expressing what is traditionally described by saying an individual (object) 'has a certain property', or (as some would

interpret this) 'the universal (expressed by the predicate) is exemplified in the individual (subject)'. What is meant by the use of the phrase 'to fall under a concept' is that it holds for the relation between an individual object and a concept. It makes no sense, for example, on this stipulation of meaning to say that something or other falls under an object. It is only of *concepts* (as 'is wise', 'is a planet', 'is a square root') that can say (truly or falsely) that some individual object falls under that concept.

The following quotations from Frege will serve as a review and summary of a number of the points we have been considering in connection with the basic distinction between concepts and objects:

First of all, I must emphasize the radical difference between concepts and objects, which are of such a nature that a concept can never substitute for an object or an object for a concept...the nature of concepts, can be characterized by the fact that they are said to have a predicative nature. An object can never be predicated by anything. When I say, 'The evening Star is Venus', and then I predicate not Venus, *but coinciding with Venus*. Linguistically, proper names correspond to objects. Concept-words (*nomina appellativa*) to concepts. However, the sharpness of this distinction somewhat blurred in ordinary language by the fact that what originally were proper names (e.g. 'Moon') can become concept-words, and what originally were concept-words (e.g. 'god') can become proper names, concept-words occur with the indefinite article, with words like 'all', 'some', 'many' etc... Now between objects and (first-level) concepts there obtains a relation of subsumption: an object falls under a concept. For example, Jena is a university town. Concepts are generally composed of component-concepts — the characteristics. Black silken cloth has the characteristic black, silken and cloth. An object falling under this concept has this characteristic as its properties. What is a characteristic with a respect to a concept is a property of an object falling under that concept. Quite

distinct from this relation of subsumption is that of the subordination of a first-level concept under a first-level concept, as in 'All squares are rectangles'. The *characteristics* of the subordinate concept (rectangle) are also *characteristics* of the subordinate one (square). When I say, 'There is at least one square root of 4', I am predicting something not of 2 or -2 but of the concept square root of 4. Neither am I giving a characteristic of this concept: rather, this concept must already be completely known. I am not singling out any components of this concept, but am stating a certain composition of the concept in virtue of which it differs for example from the concept *even prime number greater than 2*. I compare the individual characteristic of a concept to the stones constituting a house: I compare what is predicated in our proposition to a property of the house, e.g. its spaciousness. Here, too, something is predicted: not, however, a first level concept, but a concept of the second level. Square root of 4 relates to there is existence in a very similar way in which Jena relates to university town. Here we have a relation between concepts: not, however, a relation between first level concepts, as in the case of subordination, but a relation of a first-level concept to a second-level concept, which is similar to the subsumption of an object under a first-level concept. The first-level concept here plays a role similar to that of an object in the case of subsumption. Here, too, one could speak of a subsumption: but this relation, although indeed similar, nevertheless is not the same as that of the subsumption of an object under a first-level concept. I shall say that the first level concept falls (not under, but) within a second level concept. The distinction between concept of the first and second levels is just as sharp as that between object and concept of the first level: for objects can never substitute for concepts. Therefore an object can never fall under a second-level concept: such would be not false but nonsensical. If one tried something like this linguistically, one would get neither a clue nor a false thought, but not thought at all.... A different feature of first level concept is expressed by the proposition that if an object falls under

such a concept, another object distinct from the preceding one also falls under it. Here we have a second concept of the second level. From both, as second-level characteristics, we can form a third second-level concept within which falls all those first-level concepts under which fall at least two distinct object. The concepts prime number, planet, and human being would be such as fall within this second-level concept.⁷

Another useful summary statement of some central points concerning concepts and object is the following excerpt from *The Foundations of Arithmetic*:

That a statement of number should express something factual independent of our way of regarding things can surprise only those who think a concept is something subjective like an idea. But this is a mistaken view, if, for example, we bring the concept of body under that of what has weight, or the concept of whale under that of mammal, we are asserting something objective: but if the concepts themselves were subjective, then the subordination of one to the other, being a relation between them, would be subjective too, just as a relation between ideas is. It is true that at first sight that proposition:

‘All whales are Mammals’

seems to be not about concepts but about animals: but if we ask which animal then are we speaking of, we are unable to point to any one in particular. Even supposing a whale is before us, our proposition still does not state anything about it. We cannot infer from it that the animal before us is a mammal without the additional premises that it is a whale, as to which our proposition says nothing. As a general principle, it is impossible to speak of an object without in some way designating or naming it, but the word ‘whale’ is not a name for any individual definite object but nevertheless an indefinite object. I suspect that ‘indefinite object’ is only another term for concept, and a poorer, more contradictory one at that. However true it may be that our proposition

can only be verified by observing particular animals that proves as to its content: to decide what it is about, we do not need to know whether it is true or not, nor for what reasons we believe it to be true. If, then, a concept is something objective, an assertion about a concept can for its part contain something factual.

The business of a general term is precisely to signify a concept. Only when conjoined with the definite article or a demonstrative pronoun can it be counted as the proper name of a thing, but in that case it ceases to count as a general term. The name of a thing is a proper name. An object, again, is not found more than once, but rather, more than one object falls under the same concept simply because only one single thing falls under it, which thing, according, is completely determined by it. It is to concepts of just this kind (for example, satellite of the Earth) that the number 1 belongs, which is a number in the same sense as 2 and 3. With a concept the question is always whether anything, and if so what, falls under it. With a proper name such questions make no sense. We should not be deceived by the fact that language makes use of proper names, for instance Moon, as general terms, and vice versa; this does not affect the distinction between the two. As soon as a word is used with the indefinite article or in the plural without any article, it is a general term.⁸

Frege makes a fundamental distinction between proper names and predicate expressions (concept – words and relation). Frege's use of the expression 'proper name' is a broad one. It includes not only what we should ordinarily recognize as proper names (e.g. 'Abraham Lincoln', 'Socrates'), but also any linguistic device such as definite descriptions- e.g., 'the tallest mountain in Alaska'- that might be used to designate an individual object. In short, Frege's use of the label 'proper name' is equivalent to that of 'singular term', whether simple or complex.

In Frege's view, proper names (as he understands this expression) stand for something *complete*. A proper name, in order to serve as such, has a sense associated with it. Not all proper names, however, have a referent. In a well-designed scientific language, every proper name would have both a single clear sense and a referent. It is by means of the sense of a proper name that we could pick out the individual referred to by that name. In ordinary language, a proper name such as 'Abraham Lincoln' has one or more senses or definite descriptions associated with it. We could use one of these senses or definite descriptions as a replacement for the proper name. For example, in place of 'Abraham Lincoln' we could use the expression 'the president of United States assassinated during the 'Civil War' to pick out the individual meant.

Frege distinguishes concept-words and relation expressions from 'proper names' (singular terms). Concept words and relation expressions are the predicative components of complete sentences. As such, predicative expressions are 'incomplete' or 'unsaturated'. By themselves they do not designate any object, nor can one ask whether they say anything true or false. It is only of a complete sentence that one can ask whether it is true or false. A complete sentence is formed in one of two ways: by joining singular term (or terms) to a predicate expression (e.g., 'Socrates is a philosopher'), or by using quantifiers in a general proposition to bound variables (e.g., 'For all values of x , if x is a man, then x is mortal'). Uptill now we have exploited the distinction between sense and reference without giving an exposition of this distinction. In the next section our task will be to give an exposition of this bifurcation following Frege.

Sense And Reference

In his work as a philosopher and logician, Frege constantly stresses the indissoluble link between thought and language. For him it is of crucial importance to examine the role that language plays in expressing and communicating thought, both in order to see what the actual resources of language are and how, under the guidance of critical logic, we may clarify and bring into the open an improved apparatus for using language to serve our cognitive interests. The use of language to give us *truth* about the world dominated and preoccupied Frege's approach to language. Logic, for him, is the tool by which we can best serve that interest.

Frege's important work as a philosopher of language and philosophical logician is the working out explicitly of the various meanings of 'meaning' itself. What he has to say here, especially as it relates to the basic distinction between *sense* and *reference*, is of the highest importance. This is the case from the point of view of understanding the internal structure of his own philosophy, as well as in terms of appreciating the influence his analysis has had on subsequent writings in the analytic, post-Fregean tradition. Since the basic distinction between sense and reference, as aspects of 'meaning', has a fundamental relevance to an overriding interest in the truth, it may be summed up by saying that the distinction has to do with making clear certain truth-conditions in our use of language. These truth-conditions need to be discriminated and satisfied in a logically controlled use of language.

The basic distinction between sense and reference was first worked in Frege's classic paper "*Über Sinn Bedeutung*" (1892) and subsequently employed by him in all his writings. Let us turn, then to an examination of the statement of this distinction as Frege presents it in that paper.

Frege makes it clear that his initial motive for introducing the distinction between sense and reference is that he might use that distinction in helping to solve the philosophic problem of how to correctly analyze certain types of identity statements. Frege will show that the reason for his earlier failure to deal successfully with identity statements is that he failed to make the necessary distinction between sense and reference. Once made, the distinction has wider uses, for the distinction will clarify something of general importance in dealing with any form of linguistic expression employed for cognitive purposes. It will apply to types of sentences other than identity statements. It will apply not only to sentences taken as a whole, but also to the constituents of sentences. While initially the distinction will be worked out in connection with his paradigm example—that of proper names --- it will hold for concept-words as well. In short, not only names have their sense and reference; other constituent parts of well-formed sentences have their sense and reference too: and not only the constituent parts of sentences have sense and reference, but sentences as well as wholes, have their sense and reference, and the sense of the constituent parts of sentences help determine the sense of the sentence as a whole. Frege will show that not only does the distinction between sense and reference have these multiple applications to different units of linguistic expression, it also serves to clarify the logical analysis to be given to the differences between direct and indirect speech.

In what follows we shall begin, as Frege does, by examining the question of what analysis to give certain types of identity statements.

We shall then follow Frege in focusing our attention on the way in which the distinction between sense and reference appear in its clearest form in connection with proper names, and then turn briefly to the application of the distinction beyond these primary examples.

An identity statement is of the general form 'a=b'. It can be read as 'a is the same as b' or 'a and b coincide'. The problem is how to analyze such identity statements. What are their distinctive features? What logical roles are played by their several components?

The first question that may be asked has to do with how to understand the role of the identity 'equality' sign. '=', Translated as 'is the same as' (or 'coincide with'). It obviously expresses a relation of some sort — but between what? As it stands, the identity sign is an example of an incomplete or unsaturated expression. It needs to be completed by appropriate expressions which, together with the identity expression will yield a complete sentence. The question Frege considers is this: if the identity sign '=' (or the words that translate it, 'is the same as') has to do with a special relation of some sort, then we must ask about what, between what, or as holding for what, does the identity relation have to do? This question is by no means a simple one. No quick, widely agreed-to answer is readily available. Frege tells us of his earlier attempts to answer this question and why he found this attempts to be unsatisfactory. He then offers an answer that is superior to his earlier theories as well as to those of others. He identifies two such earlier (and now to be discarded) theories or attempted analyses of the nature of identity statements.

1. One possible answer to the question of what an identity statement asserts is this: identity is a relation of objects. The general linguistic form of an identity statement makes use of an equality sign '=' flanked on either side by two other expressions. The

expressions that flank the identity sign may be either the same or different. Thus 'a=a' and 'a=b' are both identity statements. If we take the identity relation as holding for objects, than one would interpret any identity statement, if true, as asserting that some object is the same as itself. If the object is designated by 'a' than the statement 'a=a' asserts than the object designated by 'a' at the left of the identity sign is the same object as the object designated by the 'a' at the right of the identity sign. And in the case of the identity statement 'a=b', this interpretation of what an identity statement asserts would be: the object designated by 'a' at the left of the identity sign is the very same object designated by 'b' at the right of the identity sign. In either case ('a=a' or 'a=b'), what the identity relation has to do with is the relation of any object to itself, namely that it is itself — it is the very same object — and not some other. Let us call this interpretation of the 'identity relation' objectual self-identity interpretation. Frege says this interpretation fails to give a satisfactory analysis of identity statements. For one might be in complete agreement with the claim, in a general ontological context, that every object is self-identical. However, this interpretation does help us to deal with an obvious and important difference in the logical status of the two distinct examples of identity statements, a=a and a=b. while both are admittedly identity statements, the second type of identity statement can convey a kind of information that the first does not. They differ in cognitive status. The second kind of identity statement may contain an important empirical discovery. That every object has a relation of self-identity to itself, while true, contains no special information. Frege's problem is how to explain what makes it possible for there to be such informative identity statements. Thus we find that the objectual self-identity interpretation of identity statements cannot suffice as a satisfactory analysis of identity statements. There is evidently

something more to the analysis of an identity statement that we must take account of than a purely objectual or ontological analysis seems to provide.

2. Frege turns, next, therefore, to a second possible analysis of identity statements. Now his interpretation approaches the question of the identity relation not as having to do with some special relation between two names insofar as they serve as signs for some object. The identity relation is a sign relation, not a purely ontological matter. As Frege points out, what is intended to be said by $a=b$ seems to be that the signs or names 'a' and 'b' designate the same thing.

However, Frege finds fault with this theory as well, even though, in some respects, it is an advance over the first theory. It is an advance in so far as it stresses the need to bring in the connection (relation) between the signs, as essential to understanding the identity relation. One cannot get a satisfactory analysis of this relation by remaining exclusively on the ontological side, on the side of the object itself. If it is an identity statement one is interested in examining, one must examine something about the linguistic means used. This will involve studying relation of the linguistic science to each other, and the relation these signs have to the objects which in some way they signify. To realize even this much is an advance over the first approach. However Frege argues that it is not yet a complete answer because as a means of examining the identity relation in so far as this has to do with the relation between the sign and the thing signified, it fails to fasten on what is important in this part of the sign-relation as expressed by the identity statement.

Consider the identity statement whose form is ' $a=b$ '. Let us assume that what is involved in the identity relation is that the sign 'a'

and the sign 'b' are related by the identity relation to each other because each independently, designates or refers to one and the same object. What we need, on the present interpretation, is that the following conditions be satisfied in order for the identity relation to hold: (1) there are signs that are readily distinguishable from one another in terms of their own physical properties — e.g., shape or sound — and serving, by virtue of these properties, as signs; (2) an object with each sign is correlated: (3) the signs, though different from each other, refer to the same object. For the sake of having a level for this view, although Frege himself does not use it, let us call this the pure reference interpretation of the identity relation.

There is no requirement, on this pure reference approach, that the sign itself give us any information about the object. It is enough if both signs refer to the same object. It is enough if every sign have certain physical properties of its own by means of which it can be distinguished from another sign having the same reference. However, the properties of the sign need not be taken as giving us any information about the object to which it refers. One example of the identity statement 'a=b' would be 'vii=7'; another would be 'Tulli=Cicero'. In the first case, though the numerical expressions 'vii' and '7' have different physical properties (e.g., shapes) they refer to the same object, i.e., the same number. Similarly, while the names 'Tulli' and 'Cicero' differ as signs in terms of sound and lettering, they refer to the same persons. Each sign, on this view, can thus be arbitrarily chosen in terms of its own physical properties. What the identity statement 'a=b' tells us is the fact two such arbitrarily chosen signs nevertheless refer to the same object. However the statement 'a=b', need not give us any knowledge about the object co-referred to by 'a' and 'b'. Thus the statement 'a=b' need not give us any more information or knowledge about the object than is contained in the statement 'a=a' is true. For if all that is involved in knowing that a=b is that the sign 'a' refers to some object, and the sign 'b' refers to some

object, and the sign '=' means '*has the same referent as*', then the entire statement ' $a=b$ ' is true *by virtue of this definition*.

Yet the fact remains, Frege argues that the identity statement ' $a=b$ ' is sometimes informative and is not known to be true nearly in virtue of a definition. It gives us knowledge about the object referred to. And the information we get from an identity statement of the form ' $a=b$ ' is not therefore simply exhausted by or reducible to the following items: (1) the material properties of the signs 'a' and 'b' are different; (2) there is an object, different from 'a' and 'b', of which 'a' and 'b' serve as signs; (3) one and the same object is being referred by 'a' and 'b'. This kind or amount of knowledge is not enough to explain the fact that some identity statements themselves give us additional knowledge (information) about the object referred to by 'a' and 'b'. The identity statement (' $a=b$ ') that gives us such additional knowledge (knowledge which is now registered as a discovery) must evidently contain in its very statement some feature in the use of signs 'a' and 'b' we have so far overlooked. It is this (so far) overlooked factor in the signs 'a' and 'b' that can yield knowledge about the object to which each refers. This missing element is what Frege new theory will makes explicit. It is what he calls sense connected with the use of the sign in an identity statement. The pure reference theory neglects to take into account this sense component in the use of a sign. It is the presence of the sense component, however, that explains the fact that some identity statements mark discoveries, and there by registered additions to our store of knowledge. The statement ' $a=b$ ' can have cognitive value, he will argue, because the senses attached to the sign 'a' and the sign 'b' are different. Thus, if the senses of 'a' and 'b' were the same, ' $a=b$ ' would not have any more cognitive value than ' $a=a$ '.

We turn, then, to the third theory of the identity-relation — one Frege himself proposes in the paper '*Über Sinn and Bedeutung*'. This theory makes the crucial distinction between sense and reference in the use of a linguistic sign. It is necessary to take into account the presence of both factors in the use of a linguistic sign. In particular, by doing this, we shall understand among other things, how certain identity statements can be informative and thus are not known to be true *a-priori*.

What, then, does Frege mean by 'sense', and how is it different from reference in the use of a sign?

As a preparation for answering this question let us pause to introduce, first, a clarification in our use of the term 'reference' let us distinguish between (1) *the relation of reference* and (2) *the referent*. Let us assume, by way of example, that we have a sign 'a' that serves as a sign for some object O. we shall use the term 'reference' interchangeably with the term 'designation', 'denotation' and 'standing for'. The sign 'a' will be said to have a relation of reference to the object O when it designates, denotes or stands for O. The sign is in the reference-relation to the object it designates. The object designated is the referent in the reference relation. The sign (e.g. a proper name) is the linguistic sign in the reference-relation that refers to (designates, denotes, stands for) the object as referent.

Frege claims that in understanding the possibility of a reference relation in which a sign refers to its referent, we should note *the sense* connected with the sign. The reference to the referent is not a wholly arbitrary or conventional matter. The reference-relation is established by virtue of the fact that there is a sense which belongs to the sign. Let us take some examples, first, of the sort of things Frege means by 'sense'.

Here is an often cited example. The statement 'The Morning Star is the Evening Star' is an identity statement (the word 'is' expresses this identity relation). The expression 'The Morning Star' has a certain sense. By virtue of this sense, it tells us where and when to look for a certain heavenly body. The expression 'The Evening Star' has a different sense from that of the expression 'The Morning Star'. It tells us where and when to look for a certain heavenly body. Each, independently, and by virtue of its sense, serves as a referring device to pick out an object. The fact that the object thus picked out by each referring phrase, each having its own distinctive sense, nevertheless is the very same object — the planet Venus — was not always known. It represents an important astronomical discovery. It was not known *a priori*. Therefore the statement 'a=b' (if taken to symbolize the sentence 'The Morning Star is the Evening Star') is not known *a priori* as would be the case with 'a=a' (e.g. 'The Morning Star is the Morning Star').

The sense of each referring expression offers a *mode of presentation* of its referent. The sense of an expression may serve as an item of information about, a description of or a means of picking out the referent. It provides us, accordingly, with what may be called a *criterion of identification* for the object referred to by this means. Where we have different singular referring expressions (proper names) each of which has its own sense, we have different criteria of identification for the same object. (Should the different senses be logically incompatible with each other, of course they could not then be used to describe properties of the same object. However, what may seem to be incompatible criteria of identification may not in fact be logically incompatible. Thus the statement, 'The murderer of Mrs. Jones is the prisoner who is extremely devoted to helping injured birds' may be a true identity statement.)

The distinction between sense and reference clarifies the different ways in which may approach the analysis of the term 'meaning' itself.

For the pre-analytic, rough use of the term 'meaning' can now be replaced by a number of distinctions in the use of the term. Thus we might mean by 'meaning' (1) the personal, subjective (and therefore variable) associations, images, or ideas an expression calls up in some mind; (2) the sense of the expression; (3) the referent of the expression. For Frege, only (2) and (3) are of relevance for logic and a scientific use of language. He rejects the relevance of subjective associations or ideas on the ground that they are inappropriate for the construction and use of logically tight scientific language.

The reference and sense of a sign are to be distinguished from the associated idea, if the referencé of a sign is an object perceivable by the senses, my idea of it is an internal image, arising from memories of sense impressions which I have had and acts, both internal and external, which I have performed. Such an idea is often saturated with feeling; the clarity of its separate parts varies and oscillates. 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. There result, as a matter of course, a variety of differences in the ideas associated with the same sense. A painter, a horseman, and a zoologist will probably connect different ideas with the name 'Bucephalus'. This constitutes an essential distinction between the idea 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.

In the light of this, one need have no scruples in speaking simply of the sense whereas in the case of an idea one must, strictly speaking, add to whom it belongs and at what time. It might perhaps be said; just as one man connects this idea and another that idea with the same word, so also one man can associate this sense and another that sense.

But there still remains a difference in the mode of connection. They are not prevented from grasping the same sense; but they cannot have the same idea...if two persons picture the same thing, each still has his own idea. It is indeed sometimes possible to establish differences in the ideas or even in the sensations, of different men; but an exact comparison is not possible, because we cannot have both ideas together in the same consciousness.

The reference of a proper name is the object itself which we designate by its means the idea which we have in that case is wholly subjective; in between lies the sense, which is indeed no longer subjective like the idea but is yet not the object itself.⁹

While in accordance with the foregoing account we might use the term 'meaning' to encompass both the sense and the reference of a linguistic expression, there is a narrower use that restricts the term 'meaning' to the sense of an expression. According to this latter stipulation to understand an expression — to know what it means — is to know what its sense is. This does not require, however, that the expression, though meaningful, i.e. with a determinate sense, must, therefore, have a referent. Considering the expression, 'the person who has a perfect command of all languages that have ever been used by human beings anywhere on earth and throughout the entire history of the human race'. While this expression has a sense, it does not follow that there is some actual person to which this description could be applied. Whether there is or is not such a referent remains to be established by whatever appropriate routes of inquiry or appeal to evidence is available. Understanding of meaning (sense) of a description and factual knowledge — i.e. knowing there is an actual object to which a description applies — are thus two different matters. The latter, however, presupposes the former.

For Frege, all expressions in a well-constructed language have sense. Ideally, each expression would have a single, uniform sense, shared and understood by all competent users of the language. It is on the basis of the sense of an expression that one can specify the conditions for the truth or falsity of the sentence as a whole. For Frege, every constituent of a well-formed sentence has a clear and determinate sense. The sentence as a composite whole, too, must have a sense if we are going to be able to assess its truth or falsity. The sense of a sentence as a whole Frege calls *the thought*. This is not some collection of subjective ideas. It is, for Frege, something objective, public, uniform. His use of the expression 'the thought' corresponds to what other intend by the word 'proposition'. The sense (thought) of a sentence — whatever the variable, conventional symbolic means for conveying that sense — is a definite proposition.

In his later writings Frege spoke of the referent of all true sentences as the Truth, and the referent of all false sentences as the False. In treating of the relation of reference of a sentence as a whole, he fell back on the model of a proper name. Just as a proper name, in a well-constructed language, has a sense and a referent, so too, Frege supposed, we can think of a sentence as a whole as expressing a sense (the thought) and as having a referent. Instead, however, of thinking of each true sentence as correlated with its own unique referent (as in the case of names, 'Socrates' refers to Socrates and 'Plato' refers to a different individual) Frege assimilated the referents of all true sentences to a single referent — 'this true'.

Frege is therefore driven into accepting the *truth-value* of a sentence constituting its reference. By the truth of a sentence he understands the circumstance that it is true or false. There are no further truth-values. For bravely he calls the one the truth, the other the false. Every declarative sentence concerned with the reference of its words is

therefore to be regarded as a proper name, and its reference, if it has one, is either the True or the False.¹⁰

The assimilation of the role of sentences, in this respect, to the role of names (whatever the conceptual economy achieved), is open to serious objections. It leads Frege to overlook the important differences between sentences and names, i.e. the need to distinguish the different ways in which we determine the 'referents' of each. Later philosophers, working broadly in the Fregean tradition, have criticized Frege on this score and have offered their own proposals for dealing with this question. Among others Wittgenstein, in his *Tractatus Logico-Philosophicus*, introduces the notion of facts as the referential correlates of propositions. With each true atomic proposition is correlated its own referent, a unique fact in the world.

In addition to the foregoing ways of exploiting the distinction between sense and reference (for the analysis, of identity statements, the treatment of proper names, and the way in which the distinction applies to entire sentence). Frege points out how this distinction can be helpful in dealing with various forms of *indirect speech*. However we will not discuss this point here as it will not be relevant to the present issue.

Reference

1. Gottlob Frege, " On Sense and Reference" in *Translations from the Philosophical Writings of Gottlob Frege*, edited by Peter Geach and Max Black, 2nd edition, Basil Blackwell, Oxford, 1960, p. 57.
2. Ibid., p. 55.
3. Frege, G., *Translations from the philosophical writings of Gottlob Frege*, ed. By P. Geach and Max Black, p. 43.
4. Ibid., p. 45.
5. Ibid., p. 45
6. Ibid., p. 49.
7. From a letter from Frege to Heinrich Liebmann (8.25.1900) in Frege, *On the Foundations of Geometry and Formal Theories of Arithmetic*, pp.3-5.
8. Frege, *Foundations of Arithmetic*, pp. 60-61, 63-64.
9. Ibid, pp.59-60.
10. Ibid., p.63.

Chapter III

CHAPTER III

Russell's Theory of Proper Name

Russell's theory of proper names is sometimes said to be a development of some of the basic ideas of John Stuart Mill. It is not surprising that Russell was influenced in this respect, like his political thinking, by his godfather. It is not to say that Russell's theory is a development of Mill's, because his theory differs from Mill's in some crucial respects. Thus, Russell agrees with Mill in maintaining, in his own way, that proper names are devoid of connotation, but differs from him in maintaining that the expressions which Mill, following ordinary usage, regarded as proper names are not proper names at all, they are only truncated descriptions.

In order to understand Russell's theory of proper name we have to contrast it with theory of descriptions. The theory of descriptions is essentially a technical device for exposing the logical character of certain basic expressions. In fact, as Russell worked it out, the theory impinges on semantics, logic, metaphysics, and theory of knowledge. Although the theory lies on a simple idea, it embodies a thoroughgoing suspicion of ordinary language as potentially misleading and a very firm reliance upon the clarifying power of logical uniformity.

The theory of descriptions destroyed the inhibitions of Russell's early realism about recasting the forms of language to fit the forms of facts. Russell was convinced that the ultimate forms of the worldly facts would be exposed by the logical forms of propositions. In some way these ideas are as old as Aristotle, but Russell and Wittgenstein with their new theory of logic, took them more seriously than any one before

them, and treated them as the very foundation of sound philosophizing. They implemented what others before them had only speculated about, viz, the treating of grammatical data as mere variations on an underlying logical idea from any possible language, for any possible fact. Russell writes in his *Logic and Knowledge*: "The purpose of the... discussion of an ideal logical language is... to suggest, by enquiry what logic requires of a language,... what sort of structure we may reasonably be suppose the world to have".¹ To understand this claim we must begin with ordinary things and work toward the theory of proper names. In appropriate context, the expressions such as "The man next door", "the last wife of George Bush" single out an object, but always as qualified in a certain way. We may say that an object is both picked out and partially described. This suggests that there is, or might be, another way of making language engage reality, i.e., picking out without describing at all. This is just what proper names are for. Whereas "The Indian prime minister who was killed by his security guard" picks out and partially described a certain historical personage, "Indira Gandhi" picks out the same woman with no description attached. Describing and naming thus seem radically different ways of linking language and reality. The distinction is further blurred by movements in the other direction as well. Russell says that many names, including ordinary proper names are really "truncated or telescoped descriptions". "Tagore" for example really amounts to the "The author of Gitanjali". Russell's idea is that when proper names are used they are often shorthand for a more detailed meaning. Which descriptive phrase is really attached to a given use of an ordinary proper name depends upon the user and the circumstances.

Russell's point is that the logical ideal underline the original distinction between descriptions and names is discernable even if it is not often approximated by ordinary proper names of person, places, and things. Thus he came to speak of logically proper names — names which were to pick out their denotation without any clinging descriptions

whatever. Such names, in Mill's well-established terminology, would denote without connoting, name without describing. They only point out object, telling nothing about them. Ideally they would not be defined in terms of any other words. They have no definitions. Such names can have no complexity in their meaning, for the complexity would suggest something descriptive. They will have to be names innocent of any possible descriptive meaning, which means that they are simple in a very radical sense.

Russell offers some arguments for his view. One of these, repeated still in 1959, in *My Philosophical Development* is this: "It is obvious that, since words can only be defined by means of other words, there must be words that we understand otherwise than by means of definitions"². But critics are not at one with Russell here. They opine that words undefinable in one context may be definable in another.

A second way of presenting this theory goes like this. We can say that a name is whatever can be put in the subject place of the sentence such that negating the sentence and negating the predicate amount to the same thing. "Carl is married" is equivalently negated by "it is not the case that Carl is married" and "Carl is not married". The underlying idea here is that a name has no meaning that could effect the meaning of the sentence other than the fact that it merely refers to its object. Any other subject term, for example, a definite description or a class term has a more complicated meaning and hence the sentence in which it occurs may have several nonequivalent negations. To substitute for the name "Carl" the description "The chairman of the Board" would enable us to negate by negating the predicate (thus admitting that he exists but denying that he is married) or by negating the proposition (thus either denying that he exists or denying that he is married). In the latter case Russell distinguishes between the primary and secondary occurrences of definite descriptions. Now it is only a minor extension of this idea that

a name, if it is the same name and not a homonym, always names the same thing. Thus Russell comes to the conclusion that unless the name actually succeed in naming something, the name contribute no meaning to the proposition and the proposition itself than become meaningless.

What we have discussed uptil now may be considered as Russell's view during the period of his essays from "Knowledge by Acquaintance and Knowledge by Description" [1911] to his lectures on "The Philosophy of Logical Atomis". The preceding discussion exhibits something original — independent lines of thought converge and are together script into the orbit of a logical theory, in the present case the theory of descriptions. The resultant acceleration of thought than threatens to idealise all the initial data, as the original peculiarities of proper names become the virtues of logically proper names. His view that in our language only "this" and "that" qualify as logically proper names has given rise to apprehensions about the whole programme. Ronald Jager doubts whether 'this' sometimes — or any word ever — get its meaning and contribute that meaning to its propositions solely by living up to the standards of being a logically proper name. The fact remains, Russell can say, that 'this' does its job in a unique way — in rudimentary causes it introduces its data without characterizing it introduces its data without characterizing it at all. It contributes its meaning to a proposition through the fact that it is silent and successful in what it sets out to do.

It might be said that 'this' contributes only its particular use, through its capacity to be used to make its unique introduction. It is doubtful whether Russell would make the distinction between uses and capacities. He could say that logically proper names have no meaning and they always have a reference or denotation. But he was usually more incline to follow Wittgenstein and hold that for names, common,

proper, or logically proper, the meaning just was the object named, denoted or referred to.

A name functions logically here somewhat as the earlier notion of a *term* of his early stage had functioned metaphysically. To put it more precisely the logically proper name is essentially a linguistic recasting of the *term* of *Principles of Mathematics*. The shift is one in view point from ontology to logic, but within the same sort of framework. The old idea that every meaningful expression indicated some *being* became the new idea that every logically proper name really names something that *exists*. This implies that for a bit of language to be a name is now a function of its use. Russell did not point out this continuity nor this further implications. Logic is the 'essence of philosophy' is Russell's new maxim, and it is valueable to see the resulting new shape of the old problem. Whereas the earlier question had been how shall timeless terms be conceived of as integrated and related to other term? This question now recedes before its linguistic replacement, namely, how shall the logical form of proposition be conceived in the face of such indispensable nobilities as proper names and quantifiers. Thus there is a shift from metaphysics to logic. The most consequential feature of the above shift is that we are to get a novel answer from Wittgenstein as well as from Russell, to its old questions of what accounts for the unity and the final analysis of the proposition. This question left unanswered in *Principles of Mathematics* is going to be outlined by a doctrine of picturing, and by the notion of logical form. For what became known as the picture theory of meaning was Wittgenstein's answer to Russell's questions. The contrasts between names and descriptions is the first step in constructing that answer. When Wittgenstein said in the *Tractatus* "It was Russell who perform the service or showing that the apparent logical form of a proposition need not be its real one"³ he was not making a causal remark. He was taking over from Russell not merely technicalities of the theory of descriptions but also the added

idea that the contrast of uniquely referring names and descriptions was essential for thinking through the idea of logical form.

Let us now see the ontological implication of Russell's theory. In *Human Knowledge: Its scope and Limit* Russell says "proper names are ghosts of substances".⁴ Russell now calls the bearers of logically proper names particulars. His particulars are simple, in just the way their proper names are. In *Logic and Knowledge* he writes "Those objects which it is impossible to symbolize otherwise than by simple symbol may be called 'simple'".⁵ The question may be asked: why a logically proper name does not name what is complex. We can see some of the forces that molded Russell's this conception.

Russell is describing a streamlined idealized programme, deliberately ignoring friction in order to discern underlying structure. Another motive for postulating ontological simples is that there would have to be a kind of structural similarity between language and whatever reality it corresponded with. This notion of Russell's philosophy took different forms at different times. But simple names for simple objects always seemed an obvious idea to him ever since he had started thinking of logical indefinable. But it was only after Wittgenstein having taken over the project from Russell, had made it explicit in his doctrine that language was a picture of reality that propositions depicted facts by being structurally isomorphic with facts, that Russell too said plainly that there would have to be an identity of structure between facts and two propositions. It is for this reason Russell thinks that a simple symbol can name only, in the system, a simple particular.

Some observations

In the previous sections we have outlined the sense theory of name and the non-sense theory of name. But the controversy seems to

be never ending. Russell had shown that referential theory of meaning is false for descriptions because descriptions are not singular terms. But the referential theory of meaning, for Russell, holds good for proper names because, as he says, names are just names. They have their meanings simply by designating the particular things they designate and introducing those designate into discourse. Such a view is sometime compared with Millian name, since Mill seemed to defend the view that proper names are merely levels for individual persons or objects and contribute no more than those individuals themselves to the meanings of sentences in which they occur.

But the problem in that Russell's theory does not escape the puzzles that occurred about descriptions. This puzzles arise just as insistently for proper names as well. Let us delineate some such puzzles. We may recall the puzzle of Frege.

Samuel Longhorne Clemens = Mark Twain.

This sentence contains two proper names, both of which pick out or denote the same person or thing. If the names are Millian the statement should be trivially true. But in fact the sentence seems to be informative and contingent.

The sentence "Pegasus does not exist" seems to be true and seems to be about 'Pegasus'. But if the statement is true it can not be about Pegasus. The statement is not only meaningful despite Pegasus non-existence but actually and importantly true. This is the problem of negative existential.

Let us consider the statement "Albert believes that Samuel Longhorne Clemens had a pretty funny middle name". In this statement by substituting "Mark Twain" for "Samuel Longhorn Clemens" we can

produce a falsehood as the singular term position governed by “believes that” is referentially opaque. If the names are Millian and contributed nothing to meaning besides the introduction of their referents into discourse the substitution should make no difference at all and the position would be transparent.

So it seem that Russell's theory of descriptions seems to have contributed very little. Its solutions are parochial to just highly distinctive sub class of singular terms.

Russell's response to this objection is very brilliant. He now makes a turn around and offers a new thesis which is sometimes called “Name Claim”. He claims that everyday proper names are not really names, at least not genuine Millian names. They look like names , but they are not names at the level of logical properties when they are laid bare. They are equivalent to definite descriptions.

Thus Russell introduces a second semantic appearance-reality distinction. Just as definite description are singular terms only in the sense of surface grammar, the name is true of ordinary proper names. Here of course the difference is more dramatic. If we look at definite description without referentialist bias, we can see that it has got some conceptual structure to it, in the form of independently meaningful word occurring in it that seem to contribute to its own overall meaning. So it is not a big surprise to be heed that underlying the misleadingly simple appearance of the word “the” there is a quantificational material, but how we are told the same about a kind of expression that looks conceptually simple.

If the name claim is true than Russell's solution to the puzzle thus generalize after all, because we just replace the name by the definite

descriptions they express. Thus names have what Frege thought of senses.

It is important to see that the Name Claim is entirely independent of the theory of descriptions itself. One might accept either doctrine while rejecting the other. In support the theory of descriptions Russell gave a direct argument. He showed the power in solving puzzles. He makes a similar explanation case for the name claim. This theory of proper name has the same power to solve puzzles. Apart from this he also gives at least one direct argument.

Just as he argued in the case of definite descriptions (his theory captures the intuitive logic of sentences containing definite descriptions) that is, such a sentence does intuitively entail each of the three clauses that make up analysis of it and the three clauses jointly entail the sentence so he argues that the same is true of proper names. Take one of the toughest cases of all a negative existential "Pegasus does not exist" is actually true. What than could it mean? It does not pick out an existing thing and assert falsely that the thing is non-existent. Rather it assures us that in fact there was no such winged horse. Similarly "Sherlock Holmes never existed" means that there never actually was a legendary English detective who lived at ... and so on.

Another argument can be extracted from his writings. It calls attention to a kind of clarificatory questions. Suppose we hear someone using a name, say "Lili Boulanger", and we do not know who the speaker is talking about. We ask who that is? The speaker replies, the first women, ever to own the *Prix de Rome* in 1913. That is a proper answer. We asked because we do not understand the name we heard. In order to come to understand it we had to ask a "who" questions as a kind of testing, which might be called the spot check test. Suppose someone used the name "Wilfrid Sellars" and we ask "who is that?"

Then comes the reply the famous philosopher ... etc. In general when asked "Who (or what) do you mean?" After one had just used a name one immediately and instinctively comes up with a descriptions as an explanations of what one meant?

John Searle made similar appeal to learning and teaching. How do we teach a new proper name to a child and how do we learn the referent of a particular name from someone else? In the first case we produce one or more descriptions in the latter, we illicit them.

Russell speaks aggressively of names "abbreviating" descriptions, as if they were merely short for the descriptions. This thesis seems too strong. All Russell actually need for his analytical purposes is the weaker contention that names are somewhat equivalent in meaning to descriptions. Even this theory has come under attack. Let us see some of the flaws of this theory.

Searle complained that if proper names are equivalent to descriptions, then for each name there must be some particular description that it is equivalent to. Let us take one instance "Wilfried Sellars was an honest man". In this statement what I am saying?, Searle tries out a couple of candidate description type and finds them wanting. We might suppose that "Wilfred Sellers" is for me equivalent to "The one and only one thing X such that X in F and X is G and ...", where "F", "G" and the rest are all the predicates which I would apply to the man in question. Searle thinks that this would have the nasty consequence for the above statement entails:

There in at least one philosopher with whom I had a fairly violent argument in 1979.

But the above statement does not entail the present one.

Now, the Spot-Check Test ought to supply a more local answer for each use of a name and it is plausible to think that a speaker can normally give a fairly specific description when prodded. But it is unclear that this is always because the description was one the speaker already had determinately in mind. If somebody ask me. "who is Sellers?", I might make any number of answer that come to my mind, depending on what sort of information I think the questioner may want about him. But it hardly follows that the answer I do produce is the precise description that my use of "Sellers" antecedently expressed.

To make it more precise we may say that the complaint is not merely that it would be hard to find out which description a speaker had in mind in uttering some name. It is the stronger thesis that at least in many cases there is no single determinate description that the speaker has in mind either consciously or subconsciously. There is little reason for thinking that there is a fact of the matter as to whether "Wilfrid Sellars" is used an equivalent to "The author of *Philosophy and the Scientific Image of Man*" or "The inventor of the theory of mental terms" etc. I need have none of this in particular in mind when I unreflectly uttered "Wilfrid Sellars was an honest man".

There is no gainsaying that different people know different thing about other people. In some cases X's knowledge about Z and Y's knowledge about Z may not even overlap. It follows from the Name Claim that the same name will have different senses for different people. For if names are equivalent to descriptions, they are equivalent to different definite descriptions in different people's mouths, and for that matter to different descriptions in the same person's mouth at different time. Suppose now that I am thinking of Wilfrid Sellars as "the author of *Philosophy and the Scientific Image of man*", and suppose somebody else is thinking of Sellars as "Pittsburgh's most famous philosopher".

Then we would be curiously unable to disagree about Sellars. If I were to say, "Sellars used to tie his shoes with one hand", and somebody says "That's ridiculous, Sellars did no such things," we would, on Russell's view, not be contradicting one another. For the sentence I have uttered would be a generalization.

One and only one person wrote *Philosophy and the Scientific Image of Man*, and whoever wrote *Philosophy and the Scientific Image of Man* used to tie his shoes with one hand,

While other statement would be just a different generalization

One and only one person was a Philosopher more famous than any other in Pittsburgh, and whoever was a Philosopher more famous than any other in Pittsburgh did no such thing as tie his shoes with one hand.

The two statement would be entirely compatible from a logical point of view. What looked like a spirited dispute is now no real dispute at all. But that seems quite wrong.

In the light of the above objection to Russell's version of the description theory John Searle offered a looser and more sophisticated version. He suggested that a name is associated, not with any particular descriptions but with a vague cluster of descriptions. As he puts it, the force of "This is N", where 'N' is replaced by a proper name, is to assert that a sufficient but so for unspecified number of standard identifying statements associated with the name are true of the object demonstrated by "this". That is the name refers to whatever objects satisfies a sufficient but vague and unspecified number of the descriptions generally associated with it.

The vagueness is important. Searle says, it is precisely what distinguishes names from descriptions. Searle insist that, rather than being equivalent to a single description, a name functions as a “Peg ... on which to hang description” and that is what enables us to get a linguistic handle on the world in the first place.⁶

This cluster theory of Searle allows him to obviate the three objections that were raised for Russell’s view. Objection one is mooted because Searle has abandoned the commitment that for each name, there must be some one particular description that it expresses. The name is tied semantically just to a loose cluster of description. Objection to is blunted by the fact that different people can have different subclusters of descriptive material in mind, yet each have a tool of identifying description and thereby succeed in referring to the same individual.

Thus Searle try to mitigate the opening objection to Russell’s theory by offering his looser cluster version of the description approach. This version seems to qualify as a sensible middle way between Russell’s view and the Millian conception of names. But building on some important ideas of Ruth Barcan Marcus, Saul Kripke went on to subject Russell’s name claim and Searle’s Cluster Theory together to a more sustained critique. They argue that Searle had not backed far enough from Russell’s, for Searle’s view inherits problems of much the same kinds. For them, the whole descriptivist picture of proper names is misguided.

Saul Kripke raises the following objections against the Descriptivist Theory of proper names. Suppose that “Richard Nixon” is equivalent to “the winner of the 1968 U.S. Presidential election”. Now let us consider a modal question about possibility : Could Richard Nixon have lost the 1968 election? The answer seems to be “Yes”, assuming

that "Could" here expresses merely theoretical, logical or metaphysical possibility rather than something about the state of our knowledge. But according to the Description theory, our question means the same as

Is it possible that: one and only one person won the 1968 election and whoever won the 1968 election lost the 1960 election?

the answer to which is clearly 'No'.

Searle's cluster theory may seem to offer an improvement, because it is possible that who satisfies a sufficient but vague and unspecified number [SBVAUN] of the description cluster associated with "Richard Nixon" none the less does not satisfy the particular description "winner of the 1968 election". But, Kripke points out, human possibility extends further than that: Nixon, the individual person might not have done any of the things generally associated with him. He might have apprenticed himself at age 12 to a sandal maker and gone on to make sandals all his life, never going anywhere near politics. Yet obviously it is not possible that a person who satisfy are SBVAUN of the description cluster associated with "Richard Nixon" nonetheless does not satisfy any at all of the descriptions in that cluster. On Searle's view, the character who went into sandal making would not have been the referent of Richard Nixon and for that matter would not have been "Richard Nixon". And that seems wrong.

Michel Dummett⁷ has protested that the above objection is simply invalid as it stands. It rests on a hidden assumption which is false. We may infer that our modal question is synonymous With "one and only person won the 1968 election and whoever won the 1968 election lost the 1960 election" only by assuming that of Richard Nixon is equivalent to a description at all, it is equivalent to one that has narrow scope (that is, a secondary occurrence with respect to "it is possible that"). What if

the relevant description have wide scope? Than our original question is synonymous not with the above statement, but with One and only one person won the 1968 election, and, concerning whoever won the 1968 election, is it possible that person lost. It simply means that one and only one person won the election and whoever won it is such that he could have lost.

Kripke offers an (utterly fictional) example regarding Godel's Incompleteness Theorem, a famous meta-mathematical result. In Kripke's fiction, the theorem was proved in the 1920s by a man named Schmidt, who died mysteriously without publishing it. Kurt Godel came along, appropriated the manuscript, and scurrilously published it under his own name. Now, most people know Godel, if at all, as the man who proved the Incompleteness Theorem. Yet it seems clear that when even those who know nothing else about Godel utter the name "Godel", they do refer to Godel rather than to the entirely unknown Schmidt. For example, when they say "Godel proved the incompleteness Theorem", they are speaking falsely, however well justified they may be in their belief.

This objection too goes against Searle's Cluster Theory as well as against the classical Russellian view. Suppose no one in fact proved the Incompleteness Theorem; Schmidt's alleged proof was irreparably flawed, or perhaps there was not even any Schmidt, but "the proof simply materialized by a random scattering of atoms on a piece of paper". Here it is even more obviously true that most people's uses of "Godel" refer to Godel rather than to anyone else at all; yet those uses are not even backed by any Searlean cluster. Let us consider next the sentence:

Some people are unaware that Cicero is Tully.

This statement is ostensibly true, but if the Name-Claim is correct, the statement is hard to interpret, for there is no single proposition denoted by the 'that' clause, that the community of normal English speakers expresses by "Cicero is Tully". Since "Cicero" and "Tully" are equivalent to different descriptions for different people there is no single fact of which the above statement says some people are unaware. Now if we assert the above sentence, presumably its complement clause expresses what "Cicero is Tully" means in my speech. But since we know that Cicero is Tully, we associate the same set of description, whatever that might be, with both names. Suppose that, like most philosophers, we associate both "Cicero" and "Tully" with "The famous Roman orator". Then the above statement is equivalent to

Some people are unaware that one and only person was famous Roman Orator and one and only one person was a famous Roman Orator and whoever was a famous Roman Orator was a Famous Roman Orator.

That massively redundant sentence is equivalent to

Some people are unaware that one and only one Person was a famous Roman Orator.

No doubt the present statement is true, but surely does not express what the previous statement means. It is far from clear how Searle might handle this objection. In order to obviate the above objection Kripke and others propound a new theory that we shall discuss in the next chapter.

Reference

1. Russell, B. *Logic And Knowledge*, pp.338.
2. Russell, B. *My Philosophical Development* London, George Allen & Unwin Ltd., Museum Street 1966, p. 168.
3. Wittgenstein, L., *Tractatus Logico Philosophicus*, London Routledge & Kegan Paul Ltd., 1995. Prop. 4.0031.
4. Russell, B., *Human Knowledge: Its scope and Limits*. Newyork, Siman abd Schuster 1948, p 88.
5. Russell, B. *Logic And Knowledge*, pp.194.
6. Searle, J.R : 1958 "Proper Name", *Mind*, 67 p. 172
7. Dummett, M, : Frege : *Philosophy of Language*, New York : Harper and Row 1973.

Chapter IV

CHAPTER IV

The New Theory Of Reference

On January 20th, 22nd and 29th 1970 Saul Kripke delivered three lectures at Princeton University. They produced something of a sensation. In the lecture, he argued, among other things that many names in ordinary language referred to ordinary object directly rather than by means of associated descriptions. He points out that causal chains from language user to language user were an important mechanism for preserving reference : that there were necessary *a-posteriori* and contingent *a-priori* truths : that identity relations between rigid designators were necessary and that materialists identity theories in the philosophy of mind were suspect. Interspersed with this was a considerable amount of material on natural kind terms and essentialisms. As a result of this lectures and related 1971 paper "Identity and Necessity", talk of rigid designators, Hesperus and Phosphorus, Meterbars, gold and H₂O, and such like weakly became common place in philosophical circles. The cluster of these surrounding the idea that a relation of direct reference exists between names and their referents is now frequently refer to as the New Theory of Reference.

On December 28th, 1994 Quentin Smith read a paper at the Eastern Division Meetings of the American Philosophical Association that produce a different kind of sensation. In his paper Smith suggested that most of the major ideas in the New Theory of Reference had been developed by Ruth Barcan Marcus in the period between 1946 and

1961. Smith argued that Kripke had erroneously being given credit for this ideas and, more contentiously, that Kripke had heard some of there ideas at a lecture Marcus gave in February 1962, had unconsciously assimilated them and had later incorporated them into his Princeton lecture. This view has given rise to a major controversy about who is the originator of the New Theory of Reference.

Whoever might be originator there is he denying that both of them along with many other contributed to the theory. The theory became wide spared in 1970s and is still flourishing today. Some of the new contributors to the development of this theory include Kaplan, Donnellan, Putnam, Perry, Salmon, Almog, Wettstein and a number of other contemporary philosopher. The New Theory implies that many locutions, e.g., proper names refer directly to items, which contrasts with the traditional or old theory of reference. The New Theory encompasses such notion as direct reference, rigid designation, identity across possible worlds, the necessity of identity, *a-posteriori* necessity, singular propositions, essentialism about natural kind, the argument from the failure of substitutivity in modal context that proper names are not equivalent to contingent definite descriptions, and related ideas and arguments.

Quintan Smith recounts six main ideas of the New Theory of Reference that were given by Marcus in her 1961 article.

First, let us start with the idea that proper names are directly referential and are not abbreviated of disguised definitions, as Frege and Russell and most philosophers up to the 1970s believed. Marcus writes

But to give a thing a proper name is different from giving a unique descriptions (And) identifying tag in the proper name of the thing This tag, a proper name, has no meaning. It simply tags. It is

not strongly equitable with any of the singular description of the thing.¹

This is the basis of the contemporary direct reference theory of proper names where proper names are argued not to be disguised description. For example "Scot" refers directly to "Scot" and does not express a sense expressible by such a definite description as "the author of Waverley".

A second idea that Marcus introduces is that we can single out a thing by a definite description, but this description serves only to single it out, not to be strongly equitable with a proper name of the thing. She says "It would also appear to be a precondition of language (especially assigning names) that the singling out of an entity as a thing is accompanied by many ... unique description, for otherwise how would it be singled out? But to give a thing a proper name is different from giving a unique."² This idea later became widely disseminated through Kripke's discussion of how reference fixing description are sometimes used to single out a thing as a bearer of a name, but that names are not disguised descriptions.

A third component of the New Theory of Reference introduced by Marcus is the famous modal argument for the thesis that proper names are directly referential rather than disguised contingent descriptions. Contrary to Nathum Salmons claim that modal arguments are chiefly due to Marcus. Let us begin with this passage where Marcus is discovering the following statements.

1. The evening star eq. the morning star.
2. Scot in the author of Waverly.

The symbol "eq" stands for name equivalence relation. Types of equivalence relation include identity, indiscernibility, congruence, strict

equivalence, material equivalence and others. Marcus wants to argue that the equivalence relation to be unpacked in (1) and (2) are not strong enough to support relevant theses of the “disguised contingent description” theory of proper names. She writes “If we decide that ‘the evening star’ and ‘the morning star’ are proper names for the same thing, and that “Scot” and the author of *Waverley* are proper name for the same thing, then they must be intersubstitutable in every context. In fact, it often happens, in a growing, changing language that a descriptive phrase comes to be used as a proper name – an identifying tag – and the descriptive meaning is lost or ignored.³ Marcus will find that not all relevant expression are names for the same thing. They are not intersubstitutable in modal context. She writes : “If they express (Statement [1] and [2]) a true identity, than “Scot” or to be any where intersubstitutable for “the author a *Waverly*” in modal context, and similarly for the morning star” and “the evening star”. If they are not so universally intersubstitutable that is, if our decession in that, they are not simply proper name for the same thing; that they express an equivalence which is possibly false, e.g., someone else might written *Waverley*, the star first seen in the evening might have been different from the star first seen in the morning – then they are not identities.⁴ Marcus modal argument shows why the “disguised contingent description” theory of proper name is false. Since (1) and (2) do not express identity, the expression flanking “is” are not proper names for the same thing. In (1) and (2) a weaker equivalence relation should be unpacked, for example, by a theory of descriptions. By contrast, the sentence “Hesperus in Phosphorus” equinces an identity sign, flanked by the two expressions. Thus it passes Marcus’ modal test for containing two proper name of the same thing.

This modal argument goes back to Marcus’ formal proof of the necessity of identity in her extension of S4, which is a fourth component she introduced into the new theory of reference. She showed that

(T) $(xly) \equiv \Box (xly)$

is a theorem of QS4, QS4 being her quantificational extension of Lewis' S4. The quadruple bar here means strict equivalence. Since identities are necessary, a failure of intersubstitutivity in modal contexts will show that a proper name does not express the relevant descriptive sense. If "Scoot is not intersubstitutable with "the author of *Waverley*", Scoot does not express the sense expressed by this definite description. This opens the door to the theory that proper names do not express descriptive senses but instead are directly referential.

Of course, this argument does not prove that proper names do not express senses, merely that they do not express senses of contingent definite descriptions. Marcus's modal argument is consistent with the idea of Linsky and A. Platinga that proper names express senses expressible by necessary definite descriptions that express modally stable senses. For example, "Scoot" may express the modally stable sense of "the actual author of *Waverley*".

In order to rule out this modally stable descriptive theory of proper name, one needs further argumentation, such as the epistemic argument that proper names are directly referential. If the descriptive theory of proper names is true (that is if proper names are defined by descriptions), then "Venus is the evening star" should express a truth knowable *a-priori*, that is knowable merely by reflection upon the concepts involved. But it cannot be known *a-priori* that Venus is the evening star. This is known *a-posteriori*, through observation of the empirical facts. As Marcus writes :

You may describe Venus as the evening star, and I may describe Venus as the morning star, and we may both be surprised that, as an empirical fact,

the same thing is being described. But it is not an empirical fact that Venus I Venus.

Here "I" is the identity symbol if "Venus" expresses the modally stable sense expressible by "whatever is actually the evening star and morning star", then the persons designated by 'you' and 'I' in the passage quoted from Marcus' article should be able to know *a-priori*, simply by reflection upon the semantic content of the expressions "Venus" "the morning star" and "the evening star" that Venus is both the morning star and the evening star. The fact that they cannot know this indicate that Venus does not express the modally stable sense expressed by " whatever is actually the evening star and morning star".

Marcus' arguments for the direct reference theory make manifest her discovery of fifth crucial component of the new theory of reference, the concept of rigid designation (although the name of the concept, "rigid designation" was first coined by Kripke). Hesperus is intersubstitutable *Salva Veritate* with either occurrence of "Phosphorus". Each of these two names actually designates Venus in respect of every possible world in which Venus exists and does not actually designate any thing in respect of worlds in which Venus does not exist. If these two names were instead equivalent to contingent description (e.g., "the morning star" and "the evening star"), they would not be intersubstitutable *Salva Veritate* in this modal context and this would be non-rigid designators.

Although we have used the rigid designation terminology Marcus does not use it since Kripke's introduction of this expression in his "Identity and Necessity" (1971) assimilated proper names (viz, modally stable descriptions), which obscure their, different semantic property. Marcus' points can be accommodated consistently with the continuity of "rigid designators", if we make the following classification which is familiar to those working with the New Theory of Reference. Adopting the genus/species terminology, we may say that the genus is rigid

designators, and the different species are (a) proper names (b) referentially used definite descriptions (in Donnellan's sense), (c) attributively used definite description that express a modally stable sense, (d) uses of indexical, (e) natural kind term and certain other expression. We avoid assimilating proper name to some modally stable description, since proper name refer directly, whereas attributively used definite descriptions that express modally stable senses refer indirectly, via the expressed sense.

A sixth idea of introduced into the New Theory of Reference by Marcus is the idea of *a-posteriori* necessity. Let us recall our earlier question of Marcus' remark about Venus and the evening star.

You may describe Venus as the evening star, and I may describe Venus as the morning star, and we may both be surprised that, as an empirical fact, the same thing is being described. But it is not an empirical fact that Venus I Venus.

Consider the expression "Hesperus is Phosphorus". We do not know this to be true *a-priori*. It is not an analytic assertion whose truth value is known by analysis of the concept involved. Nonetheless, it is necessarily true since both names directly refer to the some thing, Venus. It is true that

Hesperus I Phosphorous

Whereas, as before, "I" is the sign of identity. Given Marcus' theorem of the necessity of identity, it follows that

Necessarily, Hesperus I Phosphorous.

Thus "Hesperus is Phosphorous" can be viewed as a synthetic *a-posteriori* necessary truth.

Kripke eloquently elaborated upon Marcus' idea and extended it to new sort of item.

Section II

Kripke's causal Historical Theory of Reference

Once Marcus presented her ideas in 1961 soon after that Kripke gave it a complete form adding more new ideas with it. His one original contribution to the New Theory of Reference was his causal theory of reference. The basic idea of causal, or historical, theories of reference is that a term refers to whatever it is causally linked in a certain way. These links do not require speakers to have identifying beliefs about the referent. The causal links relate speakers to the world and to each other.

Let us explain in brief the causal theory of proper names. How is a person able to use "Einstein" to designate a physicist he has never met and whose theories he does not grasp? This problem divides into two.

- (1) How do we explain the introduction into our language of "Einstein" as a name for "Einstein"? We need to explain how people were first able to use that noise to designate certain individuals. This requires a theory of *reference fixing*. Our theory of reference fixing looks to the causal grounding of a name in an object.
- (2) How do we account for the social transmission of the name "Einstein" within the linguistic community? None of us had anything to do with the introduction of the name but can use it to designate "Einstein" because we have gained the name from

others. To explain this we need a theory of *reference borrowing*. Kripke offers a causal theory of this also.

The basic idea of the causal theory runs like this. The name is introduced at a formal or informal dubbing. This dubbing is in the presence of the object that we form them on the bearer of the name. The event is perceived by the dabbler and probably others. To perceive something is to be causally effected by it. As a result of this causal action, witness to the dubbing, will gain an ability to use the name to designate the object. Any use of the name exercising that ability designates the object in virtue of the uses causal link to the object: perception of the object prompted the thoughts which led to the use of the name. In short, those presented the dubbing acquires a semantic reality that is causally grounded in the object.

The basic idea of the causal theory of reference borrowing is this. People not at the dubbing acquire the semantic ability from those at the dubbing. This acquisition is also causal, indeed perceptual processes. The name is used in conversation. Hearers of the conversation can gain the ability to use the name to designate the object. The exercise of that ability will designate the object in virtue of a causal chain linking the object, those at its dubbing, and the user through the conversation.

A name not only have reference, it has sense. If the causal theory is to emulate the description theory in accounting for both, they must give a theory of sense. According to causal theory, the sense of a name is a particular proper of the name is a particular proper of the name, the property of designating its bearer by a certain type of causal link between name and bearer. The aspects of reality we have to call on to explain reference are all we need for sense. The reference of a name is determined by the appropriate causal chains and, in virtue of that by its sense. The chain yield what Frege would call "the mode of presentation"

of the object? So Frege was right in thinking that there was more to a name's meaning than its referent but wrong in thinking that the extra was expressed by a definite description.

With the description theory of reference went a theory of understanding, a theory of what it is to be competent with a name. Such a theory is also implicit in the above causal theory. When we talk of an ability to use a name gained at a dubbing or in conversation, we are talking of competence. So competence with the name is simply an ability with it that is gained in a grounding or reference borrowing. Underlying the ability will be causal chains of a certain type that link the name to its bearer. Since the name's sense is its property of designating by that type of chain, we could say that competence with a name involves grasping its sense. But competence does not require any *Knowledge about* the sense, any *Knowledge that* the sense in the property of designating the bearer by certain type of causal chain. This sense is largely external to the mind and beyond the ken of the ordinary speaker. In thus abandoning the Cartesian assumptions for name, the causal theory departs further from a Fregeian notion of sense and from the description theories as they have been standardly understood. Many would reject this theory simply because it posts a sense that ordinary speakers are unlikely to know about.

So the picture is like this. At a dubbing, a name is introduced by grounding it in an object. There is a causal chain linking the ability gain at the dubbing to the object. In virtue of that link, the reference of the name is fixed as the object. Exercising the ability by using the name adds new links to the causal chain: it leads to other having abilities dependent on the original ability. Thus we can use "Einstein" to designate Einstein because we are causally linked to him by a chain running through our linguistic community to someone present at his dubbing.

Let us illustrate the above view with an example. Let us take the instance of a cat called "Nana". Two people were present at her dubbing. There was no elaborate ceremony: one say "Let us call her Nana" and the other agreed. This simple suggestion agreed to was enough. Each person saw and failed the cat, saw the other person, and heard his or her words. Each person was sophisticated enough to know what was going on. The cat occupied a unique place in this complex causal interaction. In virtue of that place she was named "Nana. In Virtue of that place the abilities, the two get were once to designate Nana.

A few minutes later the name was used for the first time: "Nana is hungry". The first use designated Nana. It did so because that name token was produced by an ability created by the dubbing in which Nana played that unique role. Underlying the token is a casual chain grounded in Nana.

The two dabbers did not keep the name to themselves. They introduced others to the cat: "This is Nana". They told others of her name; "our cat is called Nana". They might have used name in conversation with others. Those who heard and understood this utterances gained abilities to designate Nana by her name. They borrowed their reference from the dabber. When they went on to use the name there were causal chains underlying those uses that stretched back to Nana via the ability of the reference lender. From those uses still others gained abilities, abilities depending similar chains such chains are "designating chains". So underlying a name is a network of designating chains.

Let us note that reference borrowing is not simply a matter a learning a word from another person. Clearly any word can be thus

learn. In case of reference borrowing, it is partly in virtue of the referential abilities of another person, that the speaker's use of the term has its reference. Not only was the other person causally responsible for the speaker's reference, but that reference is still dependent on a designating chain that runs through that other person.

The theory develop thus has many attractive features. First, it shares the description theories the capacity to account for the following special features of natural language, that it is stimulus independent in that the causal chain on which its use depends does not require the presence of the object. It is arbitrary and medium independent in that any symbol in any medium can be placed in the appropriate causal relation to the object. And because of this, it has to be learned. However unlike description theories, it can also account for the apparent abstractness of proper names; as Mill observed, names do not imply any attribute belonging to the object.

Second, the causal theory avoids the five problems of descriptions theories. Since a name does not abbreviate on cluster of definite description, there is no problem finding a principled basis for selecting which description are in the cluster for a person ; not, avoiding unwanted ambiguities arising from cluster differences between people. It does not loose the rigidity of names. Indeed the theory explains this rigidity: a name reforms in all possible worlds to the object it is causally related to in the actual world.

Let us return to the Twins example and the problem of reference change. The name Dawn was grounded in B at the dubbing, but from then on always grounded in A. The initial grounding in B pales into insignificance when compared with these thousands of grounding in A. So "Dawn" now designates A.

SECTION III

Names and rigid designators

The fact that natural-language proper names are rigid designators is an empirical discovery about natural language. However, unlike other empirical discoveries about language made in the past few decades, it is one which has been taken to have great philosophical significance. One reason for this is that it has helped simplify the formal semantical representation of ordinary modal discourse. But the central reason is that the discovery threatens a certain picture, the descriptive picture, of the content of names, upon which a great deal of philosophy was premised.

Rigidity is a semantic property of an expression. More specifically, it has to do with the evaluation of that expression with respect to other possible situations (or 'worlds'). There are many subtle issues involved in the notion of evaluating an expression with respect to a possible situation. But there are also some simple confusions about this notion. Before we begin our discussion of rigidity, it is important to dispel one such confusion.

On one way of understanding evaluation of a sentence with respect to another possible world, a sentence is true with respect to another possible world just in case, if the sentence were uttered in that other possible world, it would be true. However, this is decidedly not how to understand the notion of evaluation with respect to another possible world which underlies our modal discourse.

The correct notion of evaluation of a sentence with respect to another possible world involves considering the sentence as uttered in the *actual world*, rather than as uttered in other possible worlds. When the sentence is uttered in the actual world, it expresses some semantic value which is determined by how the words are used by speakers in the actual world. This semantic value is then evaluated with respect to other possible worlds. What the nature of the entity which is evaluated with respect to other possible world – whether it is a “proposition” (what is said by an utterance of the sentence) or some other entity – is a difficult question. For now it is only important to note that what is at issue in evaluating a sentence with respect to another possible world does not involve considering that sentence as uttered in that other possible world, but rather considering the sentence as uttered in the actual world.

How an expression *e* is used by speakers in other possible situations is thus irrelevant to the question of what the extension of *e* is when evaluated with respect to those other possible situations. For instance, what the denotation of “Cayuga Lake” is with respect to another possible world is has nothing to do with how the speakers of that world – if there are any – use the expression “Cayuga Lake”. It just has to do with which object Cayuga Lake is in that world. Now that this possible confusion has been eliminated, we may turn to the notion of rigidity.

According to Kripke’s characterization of rigidity, “a designator *d* of an object *x* is rigid, if it designates *x* with respect to all possible worlds where *x* exists, and never designates an object other than *x* with respect to any possible world”. This characterization, as Kripke intends, is neutral on the issue of the extension of the designator *d* in possible worlds in which *x* does not exist. That is, if *d* is a designator which satisfies the above criteria, there are three possibilities left open for *d*’s extension in worlds in which *x* does not exist. First, *d* could designate

nothing with respect to such possible worlds. Second, *d* could designate *x* in all such possible worlds (despite *x*'s non-existence in those possible worlds). Third, *d* could designate *x* with respect to some such worlds, and designate nothing with respect to other such worlds.

These three possibilities determine three different species of rigidity. However, only the first two species deserve discussion; a designator in the third class is a hybrid.

The first species of rigidity, corresponding to the first of the above possibilities, includes all and only those designators *d* of an object *x*, which designate *x* in all worlds in which *x* exists, and designate nothing in worlds in which *x* does not exist. Following Nathan Salmon⁵ let us call these *persistently rigid designators*.

The second species of rigidity, corresponding to the second of the above possibilities, includes all and only those designators *d* of an object *x*, which designate *x* in all worlds in which *x* exists, and designate *x* in all worlds in which *x* does not exist; or, more simply, designate *x* with respect to every possible world. Again following Salmon, let us call these *obstinately rigid designators*.

There are expressions which are uncontroversially rigid in both of the above senses. For instance, consider Kripke's class of *strongly rigid designators* in *Naming and Necessity*.⁶ This class contains the rigid designators of necessary existents. That is, this class contains all and only those designators *d* of an object *x* which exists in all possible worlds, which designate the same thing in all possible worlds (that is, *x*). for example, the descriptive phrase "the result of adding two and three" is a strongly rigid designator, since its actual denotation, namely the number five, exists in all possible worlds, and the phrase denotes that

number with respect to all possible worlds. Strongly rigid designators clearly belong to both of the above classes.

It is unclear to what degree issues about persistent rigidity versus obstinate rigidity are substantive, rather than merely disguised terminological discussions about how best to use the expression "evaluation with respect to a world". There is a sense of this expression in which it seems to presuppose the existence of the denotation in the world; and if someone is using the expression in this sense, then persistent rigidity might be the more appropriate notion. If, on the other hand, one has a purely semantical understanding of "denotation with respect to a world", then the fact that the semantic rules directly assign a denotation to an expression might lead us to think that even in worlds in which that object does not exist, it is still the denotation of the relevant expression. But these are certainly just terminological issues.⁷

A further distinction is often made in discussions of rigidity; that of Kripke between *de jure* rigidity and *de facto* rigidity.⁸ An expression is a *de jure* rigid designator of an object just in case the semantical rules of the language immediately link it to that object. All other rigid designators of objects are *de facto* rigid designators of them. To give an example from Kripke, the description "the smallest prime" is supposed to be *de facto* rigid, because it is not metaphysically possible for there to be a smallest prime distinct from the actual smallest prime, that is, two. The fact that "the smallest prime" denotes the same object in every world flows not from semantics, but from the metaphysical fact that mathematical facts are true in all metaphysically possible worlds. If, on the other hand, the semantical rule for a term *t* takes the form of a stipulation that it denotes a certain object *x*, then *t* is *de jure* rigid, since it is part of the semantical rules that it denotes that object.

The intuitive content of *de jure* designation lies in the metaphor of “unmediated” reference. A rigid *de jure* designator is supposed to denote what it denotes without mediation by some concept or description. A *de facto* rigid designator, on the other hand, is supposed to denote what it denotes in virtue of its denotation meeting some condition. That is, a *de facto* rigid designator denotes via mediation of some concept or description.

The core notion of rigidity has been taken by philosophers to be *de jure*, obstinate rigidity. This is the notion which lies at the center not only of Kripke’s work, but also of David Kaplan’s work on direct reference. Rigidity arose in the development of the semantics of Quantified Modal Logic (henceforth QML), and in particular, as a part of the explanation of the proper treatment of variables in QML. In that context, there is no question that *de jure* rigidity is the relevant concept.

The pre-theoretic notion of rigidity began its life as a concept in the semantics for QML. In particular, rigidity arose in connection with the ‘objectual’ interpretation of QML, where the quantifiers were taken to range over objects, rather than non-constant functions. Even more specifically, rigidity was relevant to issues concerning Quine’s “modal paradoxes”, raised as objections to the coherence of QML. Now I will attempt to show where the notion of rigidity enters into the attempt to give a coherent and natural semantic interpretation to QML.

One of the first issues which arose in QML was what the proper intended interpretation of quantification should be. The two camps in the 1940s were the conceptual interpretation, championed by Alonzo Church and Rudolf Carnap, and the objectual interpretation, championed by Ruth Barcan Marcus. But while Church Carnap, and Barcan Marcus and others were developing axiom systems for QML,

Willard Van Orman Quine was busy attempting to demonstrate their incoherence.

Quine raised two influential objections to QML.⁹ According to the first of these objections, quantification into modal contexts violated fundamental logical laws. According to the second (and obviously related) objection, if QML and its intended interpretation could be so formulated as to evade the first objection, then it would inexorably carry with it unpalatable metaphysical commitments. Since the defenders of QML partially defined their own positions against the first of these objections, something must be briefly said about it here. Following this we will outline the conceptual interpretation of QML, and then the objectual interpretation, explaining how their original espousers evaded Quine's worry.

According to the principle of substitution, for any terms a and b , if " $a = b$ " is true, then for any formula Φ containing " a ", the result of replacing one or more occurrences of ' a ' and ' b ' does not change the truth-value of Φ . However, according to Quine, QML essentially involved a violation of this principle. For "nine = the number of planets" is true. Furthermore, "Necessarily, nine = nine" is true. But the result of substituting "the number of planets" for the first occurrence of "nine" in "Necessarily, nine = nine" yields a falsity, namely, "Necessarily, the number of planets = nine".

Quine took the failure of substitution in model contexts also to demonstrate the failure of existential generalization in QML. That is, Quine took the failure of substitution to show that the inference from " $\Box Fa$ " to " $\text{Ex } \Box Fx$ " is illegitimate. The reason Quine thought that a failure of substitution demonstrated the failure of existential generalization is that he thought that substitutability by co-referential terms was a *criterion* for the legitimacy of quantifying in.

Here is one reason why Quine thought that the substitutability of co-referential terms in a linguistic context C was a criterion for the legitimacy of quantification into C. Consider a quotational context, such as :

- (1) The first sentence of the (English translation of the) *Duino Elegies* is "Who, if I cried out, would hear me among the angles' hierarchies?"

Inside such a quotational context, substitution of co-referential terms fails to preserve truth-value. For example, (1) is true, but (2), which results from (1) by the substitution of co-referential terms is false:

- (2) The first sentence of the (English translation of the) *Duino Elegies* is "Who, if Rilke cried out, would hear Rilke among the angles' hierarchies?"

Thus, substitution of co-referential terms fails in quotational contexts.

But it is also illegitimate, according to Quine, to quantify into such contexts. To see this, consider the sentence:

- (3) There is something x such that "Who, if x cried out, would hear x among the angles' hierarchies?" is the first sentence of the *Duino Elegies*.

Sentence (3) is false. The reason (3) is false is, as Quine is fond of pointing out, that the quoted sentence in (3) names not some sentence which results from replacing 'x' by a term, but rather a sentence containing the symbol 'x'. That is, a quotation such as "x flies"

' denotes the result of concatenating the symbol 'x' with the word 'flies', not the concatenation of some replacement term for 'x' with "flies". Thus, for Quine, it is illegitimate to quantify into quotational contexts.

But Quine does not simply conclude from the failure of both substitution and quantifying into quotational contexts that substitution is a criterion for quantifying in. For Quine, the failure of substitution in a linguistic context demonstrates a deep incoherence in quantifying into such contexts. For in giving the semantics of a quantified sentence, one must avail oneself of the notion of satisfaction; the sentence is true just in case some object satisfies the relevant open sentence. Yet, for Quine, the failure of substitution shows that there is no available notion of satisfaction in terms of which one can define the truth of such sentences. There is no notion of objectual satisfaction for quantifying into quotational contexts, for instance, because such contexts are sensitive not just to objects, but also to how they are named.

Thus, for Quine, the failure of substitution in modal contexts demonstrated that there was no appropriate notion of objectual satisfaction for open formulas such as " $\square Fx$ ". For the failure of substitution seemed to show that whether or not an object satisfied an open, modalized formula depended upon how the object was named. Quine hence thought there was a similarity between modal and quotational contexts: in both cases, what matters is how the object is named, rather than just the object itself. Quine concluded that there was no way of giving a coherent semantics for sentences such as " $\exists x \square Fx$ ", since there was no available notion of satisfaction in terms of which one could define the truth of the sentence. He hence declared that quantification into modal contexts was illegitimate (since incoherent), and that existential generalization fails.

There is also a historical reason for Quine's analogy between modal and quotational contexts: for Quine's target, Carnap, wished to explicate necessity in terms of the analyticity of certain sentences. That is, Carnap in *Meaning and Necessity* believed that to say that a certain proposition was necessary was "really" to say, of a certain sentence, that it was analytic, thus, according to Carnap, a construction such as (a) "really" expressed (b) :

- (a) Necessarily, bachelors are unmarried men.
- (b) "Bachelors are unmarried men" is analytic.

So, according to Carnap, modal contexts were really disguised quotational contexts. If so, then quantifying into modal contexts seems tantamount to quantifying into quotational contexts.

There are several responses which have been given to Quine's challenge. One response stems from the interpretation of QML which emerged from the work of Church and Carnap. According to this approach, variables in modal languages ranged over individual concepts, describable (in contemporary terms) as functions (possibly non-constant) from possible worlds to extensions. The principle of substitution, on this approach, was interpreted as licensing not substitution of terms for two extensionally equivalent individual concepts (that is, functions which yield the same denotation in the actual world), but rather, substitution of terms which denote the same individual concept.

Now, "nine" and "the number of planets" do not express the same individual concept, for though they are extensionally equivalent, there are possible situations in which the extension of "the number of planets" is different from the extension of "nine". Thus, the principle of substitution does not license the substitution of "the number of planets"

for "nine", on this account of QML. Furthermore, any two expressions which do express the same individual concept (are "L-equivalent", in Carnap's terms) will be substitutable, even in modal contexts.

This 'conceptual' interpretation of QML thus has a systematic, logically consistent account of the notion of the satisfaction of an open-modal formula. On the conceptual interpretation of QML, one can take the quantifier in " $\text{Ex } \Box Fx$ " to range over individual concepts. In this case, the relevant notion of satisfaction is satisfaction by individual concepts, rather than objects.

However, the conceptual interpretation of QML does not seem to accord with our natural interpretation of QML. The sentence:

(4) $\text{En } (\Box n \text{ numbers the planets})$

is intuitively false on a natural reading of the quantifier. The reason it seems false to us is that, according to a very natural reading of (4), what it asserts is that there is some object which necessarily numbers the planets. However, on the conceptual interpretation, (4) is true, because the individual concept expressed by "the number of planets" will satisfy the open formula:

(5) $\Box n \text{ numbers the planets}$

since, in every possible world, the number of planets numbers the planets.

What such examples suggest is that the natural reading of quantification into modal contexts is as quantification over objects, rather than over individual concepts. If we wish to capture this intuition, then we should think of, say, an existential quantification into an open-

modal formula (henceforth OMF) as true just in case some object satisfies the relevant modal condition. On this account, which we shall call the objectual interpretation of QML, the first-order quantifiers range only over objects, rather than over concepts.

According to the objectual interpretation, a sentence such as “ $\exists x Fx$ ” is true just in case some object is necessarily F. But what about Quine’s worry? Can the objectual interpretation supply a natural account of the satisfaction of OMFs? □

An OMF, such as “ $\exists x Fx$ ”, is, on the objectual conception, satisfied by an assignment just in case the respect to every possible situation, *irrespective of any names of that object*. We are not to understand the satisfaction of such an OMF “substitutionally”, as satisfied by an assignment, just in case, for some name a of the object which that assignment by an assignment, just in case the object which that assignment assigns to ‘ x ’ satisfies F with respect to every possible situation.

This understanding of the satisfaction clause for OMFs undercuts Quine’s objection to the coherence of quantifying into modal contexts. For Quine’s worry can only arise if objectual satisfaction is characterized in terms of the truth of closed sentences containing names of the alleged satisfiers. Only if objectual satisfaction is given such a substitutional construal is it relevant to the coherence of quantifying into modal contexts that two closed modalized sentences, differing only in containing different names for the same object, may differ in truth-value.

If such a notion of an object satisfying a predicate necessarily indeed makes sense, then it is possible to quantify into modal contexts despite the failure of substitution. Of course, Quine’s *other* objection to QML is that, where the necessity in question is metaphysical, this notion

involves a dubious metaphysic of essentialism. But discussion of this question will take us too far away from the topic of rigidity .

This construal of the satisfaction of OMFs, combined with possible-world semantics, naturally brings with it an interpretation of variables according to which they are *de jure* rigid designators. To see why this is so, consider a sentence of QML such as “ $\exists x \square [\text{Exists}(x) \rightarrow \text{Rational}(x)]$ ”. According to the objectual interpretation of QML, this sentence is true just in case there is some assignment function which assigns to the variable ‘x’ an object *o* which, in every possible situation, satisfies the open formula “ $\text{Exists}(x) \rightarrow \text{Rational}(x)$ ”. The evaluation of the truth of the sentence hence involves relative to an assignment function, evaluating the open formula “ $\text{Exists}(x) \rightarrow \text{Rational}(x)$ ” with respect to every possible situation. Since, in each possible situation, we are considering whether or not the object *o* satisfies the formula, we need to ensure that the variable ‘x’ denotes *o* in all of the possible situations. That is, on the objectual interpretation of QML, when taken with respect to an assignment *s*, variables are rigid designators of the objects which *s* assigns to them. The reason that variables are *de jure* rigid designators is because there is nothing else to the semantics of variables besides the stipulation that, when taken with respect to an assignment *s* which assigns the object *o* to a variable, it designates *o* in every possible situation.

If we understand variables as rigid designators (with respect to an assignment), then the following version of substitution is validated :

$$(6) \quad \forall x \forall y [x = y \rightarrow [\Phi \leftrightarrow \psi]]$$

(where Φ differs from ψ only in containing free occurrence of “x” where the latter contains free occurrences of “y”). For even if Φ

and ψ contain modal operators, the rigidity of the variables will guarantee the intersubstitutability of "x" and "y".

The situation is slightly more complicated in the case of term. Quine's challenge is to validate, not just (6), but also the fully schematic version of substitution:

$$(7) \quad t = s \rightarrow (\Phi \leftrightarrow \psi)$$

(where Φ differs from ψ at most in containing occurrences of t where the latter contains occurrences of s , and no free variables in t and s become bound when t and s occur inside Φ and ψ . But where t and s are replaceable by non-rigid designators then (7) will, in the modal case, fail to be valid; thus the defender of the objectual interpretation who wishes to preserve full classical substitution must disallow non-rigid terms from her language.

There are also other motivations for restricting the class of terms to rigid ones on the objectual interpretation. For example, to do so would allow a uniform treatment of the class of terms. If all terms are rigid, then non-variables can be treated in the semantics as free variables whose interpretation does not depend on assignments. Another reason is that, if one allowed non-rigid designators, one would have to restrict universal instantiation to rigid designators to retain (6), and some might hold that such a restricted UI rule is unappealing. Finally, non-rigid terms raise further technical problems which, though certainly solvable, nevertheless complicate the semantics.

At this point the reason for the introduction of terms which directly represent objects is purely technical – it is a technical response to a logico-semantical dilemma. If one wishes to preserve classical substitution, as well as the objectual conception of satisfaction, then one must ensure that one's variables and terms are rigid. In availing

ourselves of such terms, there is no commitment to thinking that any terms in ordinary language are rigid. Rigid terms only play the role, at this stage, of desirable formal-semantical tools, which allow us a better grasp of the objectual notion of satisfaction, as well as an explanation of the validity of classical substitution.

However, if we wish QML to serve as a representation of ordinary modal discourse, then the rigidity constraint on terms may seem problematic. Without a philosophical justification of this restriction, or a semantical argument to the effect that natural-language terms are rigid, this restriction is *ad hoc*. If natural-language singular terms are non-rigid, then the extra logico-semantical complexities which attend the addition of non-rigid terms into QML will either have to be accepted as realities or used as a basis for rejecting its coherence.

Even in the late 1940s it was recognized that a philosophical/semantical argument demonstrating the rigidity of natural-language terms would be desirable. However, it was not until the seminal work of Saul Kripke in 1970 that a fully explicit argument for this conclusion was forthcoming. But Kripke's ambitions went far beyond demonstrating that natural-language terms are rigid. For Kripke used the notion of rigidity as a basis for quite substantive claims about the nature of intentionality. It was thus with Kripke that the *philosophical* construal of rigidity began.

The Descriptive Picture

According to the picture of intentionality attacked by Kripke, the way our words hooked onto an extra-linguistic reality was via description. That is, a name such as "Aristotle" denoted the person, Aristotle, because the name was associated with a series of descriptions (such as "the last great philosopher of antiquity") which were uniquely

satisfied by the person Aristotle. More relevant for our purposes, however, is Kripke's attack on the descriptive picture of the *content* of proper names. According to this, the content of a name was given by the description which fixed its referent. That is, what someone said when they uttered a sentence such as "Aristotle is F" was a descriptive proposition to the effect that, say, the last great philosopher of antiquity, whoever he was, is F.

Kripke (1980) first demonstrated that ordinary-language proper names were rigid. He then used this feature of names as part of a larger attack on a certain version of the above picture of content.

In the next section, we will discuss how Kripke used rigidity to attack the descriptive picture. But before we do so, it is important to gain an understanding of what the descriptive pictures of intentionality and content are. In particular, we will distinguish between two different versions of the descriptive picture which are often not distinguished in the literature.

The problem of linguistic intentionality, in one of its forms, is the question of what it is in virtue of which an expression has the reference it does. According to the first descriptive picture of linguistic intentionality, what it is in virtue of which a primitive expression has the referent it does is that it is associated with a set of descriptions, in purely general, non-indexical, or particular involving terms. These descriptions are uniquely satisfied by an entity which then counts as the reference of that term.

A less problematic and more commonly held version of the description theory dispenses with the requirement that the descriptions which fix referents must be given in purely general terms. According to this version, which is most explicit in the works of Strawson and

Dummett, but at least implicit in Frege, the descriptions which fix referents can, and indeed often must, contain non-descriptive elements.

It is worthwhile to mention briefly a motivation for the latter picture of intentionality. One might think that, in the case demonstrative reference, one has reference without any description. But this is merely a myth. Suppose I point to a brown table, and say, "This is brown." It is not my pointing alone which fixes the reference of the occurrence of "this", for my finger will also be pointing at the edge of the table, or a small brown patch on the table. Rather, a factor in fixing the reference of my demonstrative is that I intend to be demonstrating some object whose identity criteria are those of tables, rather than those of small brown patches or edges. Such identity criteria play a crucial role in overcoming the massive indeterminacy of ostensive definition. It is for their specification that descriptive material is required.¹⁰ But this insight in no way required that we ignore the non-descriptive element inherent in true demonstrative reference.

A final relevant factor which distinguishes descriptive accounts of intentionality from each other has to do with the role of the social. According to Russell, as well as the account of descriptive intentionality attacked by Kripke, a term refers, in the mouth of a speaker, to that object which satisfies the descriptions the *speaker* associates with the term. However, according to other traditional descriptive accounts, such as that of Strawson,¹¹ what is relevant is not which descriptions the speaker associates with the term, but rather, which descriptions are associated with the term in the language community. On this latter, more plausible account, a use of a term in the mouth of a speaker refers to the object it does in virtue of her participation in a language community which associates certain descriptions with the term that are uniquely satisfied by the object in question.

There are thus two different versions of the descriptive picture, one according to which the descriptions must be in general terms alone, and another in which they may contain irreducible occurrences of demonstrative and indexical expressions. Each of these two versions has two sub-versions; one according to which it is the descriptions the speaker associates with a term which are relevant for determining the reference of terms she uses, and the other according to which it is the descriptions the language community of the speaker associates with the term which determine the reference of the term when she uses it.

Each of these versions corresponds to a theory of the content of sentences containing proper names. On the first picture, utterances of sentences containing proper names express descriptive propositions, where the relevant descriptions only contain expressions for general concepts. According to the second version of the description theory, utterances of sentences containing proper names also express descriptive propositions. However, these descriptive propositions typically are also irreducibly indexical propositions. So, on this latter account, a sentence such as "Bill Clinton is F" would state some proposition equivalent to what is expressed by "The *present* president around here of the United States is F".

If the descriptive picture is true, then, for each expression in our language, we possess, *a priori*, uniquely identifying knowledge about its referent. Such a premise is more than just a useful tool in epistemological and metaphysical theorizing. For if the descriptive picture is true, then we have a rich store of *a priori* knowledge. This makes more plausible a classic picture of philosophy, according to which it proceeds by *a priori* methods. The Kripkean challenge to the descriptive picture is thus not merely a challenge to an empirical thesis, but also threatens to undermine deeply rooted conceptions of the nature of philosophy.

Kripke's Argument And The Rigidity Thesis

In this section I will first describe an argument, due essentially to Kripke, for the thesis that names are rigid designators. I will then conclude with an argument from rigidity against the descriptive picture of content.

One of the central contributions of Kripke (1980) lay in the argument that natural-language proper names are rigid designators. In what follows, we will go through this argument. More exactly, what we will motivate is the following thesis, which we will call RN, the Rigid Name thesis:

(RN) If N designates x, the N designates x rigidity

where "N" is replaceable by names of English-language proper names. Throughout the argument for RN, it will be assumed that variables under assignments are rigid designators, and it will be argued from this assumption that natural-language proper names are also rigid designators.

According to the neutral characterization of rigidity, a designator D of an object x is rigid just in case, for all possible worlds w, if x exists in w, then D designates x in w, and if x does not exist in w, then D does not designate something different from x in w. There are thus three ways in which a designator D of an object x could fail to be rigid :

- (a) There could be a world in which x exists, but is not designated by D.
- (b) There could be a world in which x exists, but D designates something else.

- (c) There could be a world in which x does not exist, and designates something other than x .

It will be argued that each of these possibilities is ruled out in the case in which D is a proper name.

Before we proceed with the argument, it is worth noting that no separate proof is required for (b). Given that proper names designate, at most, one thing in each world, any situation in which x exists, but D designates something else will be a situation in which D does not designate x . That is, every (b) situation is an (a) situation. Thus, the demonstration that (a) is incompatible with D being a proper name will suffice to show that (b) is incompatible with D being a proper name.

So let us first argue that if "a" is a proper name designating x , then, in any world in which x exists, x is designated by "a". Suppose not, that is, suppose "a" designates x , and (a) is true. Then the following is the case:

$$(8) \quad \exists x [x = a \ \& \ \diamond (x \text{ exists} \ \& \ x \neq a)]$$

But (8) seems false when "a" is a proper name. Plugging an actual proper name in for "a" in (8) should make this clear:

- (9) There is someone who is Aristotle but he could exist without being identical with Aristotle.

This is intuitively false. Thus, it seems that if N is a proper name designating x , then, if x exists in a world, then N designates it. So, we are done with case (a) as well as (b).

Now, let us turn to the argument that if “a” is a proper name designating x, then, in any world in which x does not exist, “a” does not designate something other than x. Suppose not, that is, suppose “a” designates x, and © is true. Then the following is the case:

(10) $\exists x [x = a \ \& \ \diamond (a \text{ exists} \ \& \ a \neq x)]$

But (10), like (8), seems false when “a” is a proper name. Substituting an actual proper name for “a” in (10) should make this clear.

(11) There is someone who is Aristotle but Aristotle could exist without being him.

Like (9), (11) also seems intuitively false. Thus, it seems that if N is a proper name designating x, then, if x does not exist in a world, then N does not designate anything else. So we are done with case (c), and the argument for (RN).

The argument for (RN) exploits speaker’s intuitions about the truth-value of instances of (8) and (10). In the case of normal proper names, it seems true that, when substituted for “a” in (8) and (10), a false sentence results. (RN) is thus an empirical claim about natural language. As such, it has been challenged. That is, some have maintained that there are true instances of (8) and (10). However, the proper names that are typically considered are somewhat elaborate, involving issues in metaphysics that are beyond the scope of this chapter. The literature on “contingent identity-statements” will thus not be discussed in what follows.

In the above description of Kripke’s arguments, we have been using the expression “rigid designator” in the sense of a term which denotes its actual denotation in all possible worlds in which that

denotation exists, and nothing else in other worlds. But there are also some considerations which some have felt mitigate in favor of the thesis that names are obstinately rigid designators. For instance, Kripke¹² gives as an example the sentence:

(12) Hitler might never have been born.

Sentence (12) is true. But (12) is true just in case the sentence "Hitler was never born" is true when evaluated with respect to some possible world. If "Hitler" does not denote anything with respect to that world, then, unless one gives sentences containing non-denoting terms truth-values, it will be impossible to make the sentence "Hitler was never born" true in that world. But, if "Hitler" denotes Hitler in that world, then, despite the non-existence of Hitler in that world (or perhaps because of it), the sentence "Hitler was never born" can be true in that world.

This argument is, however, unimpressive. For it relies on the thesis that sentences containing non-denoting terms receive no truth-value. If one said that sentences containing non-denoting terms were false, then analyzing "Hitler was never born" as the negation of "Hitler was born" in a world in which "Hitler was never born" as the negation of "Hitler was born" in a world in which "Hitler" is non-denoting would yield the correct prediction.

Many have adverted, at this point, to a more indirect argument, one which exploits the analogy between tense and modality. A tense-logical obstinately rigid designator is one which denotes the same thing at all times, regardless of whether or not that thing exists at the time of evaluation. That proper names should be treated as tense-logical obstinate rigid designators is supported by the Montagovian example:

(13) John remembers Nixon.

Example (13) can be true, as uttered in 1995, despite Nixon's non-existence at the time of utterance. Such evidence is taken, by the tight analogy between tense and modality, to support the modal logical obstinancy of proper names.

However, examples such as (13) only demonstrate that proper names can denote individuals existing prior to, but not during, the time of evaluation. If proper names are to be true tense-logical obstinate rigid designators, then proper names of objects which exists subsequent to, but not during, the time of evaluation, should nonetheless denote at the time of evaluation. But this does not seem to be the case. For instance, consider the name "Sally", introduced in 1995 to denote the first child born in the twenty-first century. In the case of such as name, it is dubious that it denotes, as evaluated in 1995. For it is metaphysically likely that the future is open, and not already determined. If so, then there is no fact of the matter, in 1995, as to what the reference of "Sally" is now. Thus, it is unclear whether proper names are tense-logical obstinately rigid designators.

Whatever the outcome of the debate concerning the obstinancy of proper names is, it does seem that proper names are rigid designators. This would suggest that what fixes the referent of a proper name is not a non-rigid description, but rather something else. If so, then the descriptive account of intentionality would seem to be false.

This argument, as Kripke recognized, is, however, too swift. For it collapses once one makes Kripke's useful distinction between a description giving the content of a name and merely fixing its referent. If the description fixes the referent of a name then there is no commitment to saying that the name denotes an object in other possible worlds in virtue of that object satisfying the description. On this picture, the

description fixes the referent, which is then the denotation. On this picture, the description fixes the referent, which is then the denotation of the proper name, even in worlds in which the referent does not satisfy the description. Thus, there is no direct argument from rigidity against the descriptive picture of intentionality.

The case differs, however, with the descriptive picture of content. For there does seem to be an argument from rigidity against the thesis that the content of a proper name is descriptive. For suppose that the content of the proper name "a" is descriptive. In particular, suppose that its content is given by the non-rigid description "DD". Then the content of a sentence which results from replacing "N" by "DD" should stay unchanged, since "N" and "DD" have the same content. But, given that "N" is rigid and "DD" is not rigid, (14) and (15) do not have the same content, as (14) is true and (15) is false:

- (14) N might not have been DD.
- (15) N might not have been N.

Therefore, substitution of "DD" for "N" does not preserve truth-value, and hence also does not preserve content. Hence "DD" and "N" do not, after all, have the same content.

Let us take a concrete example. Suppose that the name "Aristotle" has the same content as the description, "the last great philosopher of antiquity" should preserve content. But:

- (16) Aristotle might not have been the last great philosopher of antiquity.
- (17) Aristotle might not have been Aristotle.

differ in content, since (16) has a true reading (for instance, there is a reading of (16) where is true because Aristotle might have died as a child, in which case he never would have become a philosopher at all), and (17) has no true reading. Thus, "Aristotle" and "the last great philosopher of antiquity" are not intersubstitutable, and hence do not have the same content.

It thus seems that Kripke's demonstration that proper names are rigid also shows that they do not have descriptive content. An obvious next step is the thesis, which Kripke attributes to John Stuart Mill, that the content of a proper name is simply its denotation. However, Kripke does not, from rigidity alone, conclude that Millianism is correct; rather, he only commits himself to the following minimal thesis, which I shall henceforth call the *Rigidity Thesis*, or RT:

The rigidity of proper names demonstrates that utterances of sentences containing proper names, and utterances of sentences differing from those sentences only in containing non-rigid descriptions in place of the proper names, differ in content.

If RT is correct, then the descriptive account of content would seem to be false. In the rest of this paper, I shall focus on various ways of defending the descriptive account of content. In the next section, I will discuss a version of the descriptive account of content which is compatible with RT. After that, I will discuss critiques of RT.

The connection between names and identifying beliefs is cut, thus avoiding the problem of ignorance and error. We do not require that name users associate descriptions with a name that identify its bearer. It offers a very different view of competence with a name. People designate

Einstein despite their ignorance with him; they designate Jonah despite their errors about him. They do this by borrowing their reference from others who in turn borrowed theirs, and so on, right back to those who named the objects. None of these borrowers needs to be able to identify his lender. No lender needs to be an expert about the object. Ignorance and error are no bar to reference. The epistemic burden is lightened.

Third, the theory can solve the problem of identity statements. This was one of the problems that led to the introduction of senses and thus encouraged description theories in the first place. That the causal theory can solve this problem may seem surprising, for this theory rather similar in spirit to the Millian view. However, this theory disagrees with the Millian view in a way that is important to the problems of identity statements. There is more to the meaning of a name than its role of designating a particular object. A name has a finer-grained meaning because it has a sense with the property of designating by a certain type of d-chain, the type that makes up the network for the name.

The problem is to explain the difference in meanings of the identity statements:

- (1) Mark Twain is Mark Twain.
- (2) Mark Twain is Samuel Clemens.

The explanation is that (1) and (2) differ because the names "Mark Twain" and "Samuel Clemens" have different senses in that they have underlying them d-chains of different types. The d-chains differ in that the grounding and reference borrowings that created them involved in one case, the sounds inscriptions, etc. of the name "Samuel Clemens". And they differ in that those for one name are linked together by speakers to from one network, those for the other, another. How is that to be explained if the causal theory is right?

Let us focus on why (1) is uninformative. To understand "is" (the same as) is to master the "law of identity": for any x , x is x . Any instance of the law will be an uninformative consequence of that understanding. An instance of the law contains two occurrences of the same name for the same object. Since (1) is obviously an instance, it will seem uninformative. In contrast, (2) is not an instance and will not seem to be an instance because "Mark Twain" and "Samuel Clemens" *Sound, look, etc.* different. So (2) will seem to be informative.

Fourth, let us talk about the problem that is posed by the ambiguity of names. Proper names typically have more than one bearer. What determines which bearer is designated by a particular use of such a name? This problem can be put clearly, in terms of a helpful distinction between types and tokens. Tokens are datable, placeable parts of the physical world. Thus, Nana and her successor, Lulu, are cat tokens. The obvious example of word tokens are inscriptions of a page or sounds in the air. Types on the other hand, are kinds of tokens. Any token can be grouped into many different types. Thus Nana and Lulu are tokens of the type *cat, female, pet of x*, and so on.

We can now put the problem of ambiguity as follows. What settles which semantic type a given token of an ambiguous physical type belongs to? The semantic type is determined by *what the speaker had in mind* in producing the token. So the matter is settled by some facts about the speaker's psychology. What facts precisely? Description theories say that it is the descriptions the speaker associates with the name taken that counts. So, a token of "LIEBKNECHT" designated the father not the son because the speaker associated descriptions with it that denote the father not the son. The causal theory gives a different answer: It is the ability exercised in producing the token that counts. So "Liebknecht" designated the father because it was caused an ability which grounded in the father.

This solution to the problem of ambiguity, like that of description theories is speaker based. It does not overlook the importance of the linguistic and non-linguistic context of an utterance. The context guides an audience in removing ambiguity. It supplies evidence of what the speaker had in mind and hence evidence of the semantic reality.

Finally, and perhaps most important of all, the causal theory promises an explanation of the ultimate links between language and the world. Further more the explanation in terms of causation seems agreeably naturalistic. Description theories cannot explain the ultimate links: they make the reference of some words dependent on that of others, and thus give reference internal to the language. We need an explanation of the external relation that the whole system of words bears to the world. The causal theory makes the reference of the name dependent on an external relation.

The causal theory distinguishes empty name from non sense syllables, for even an empty name has an underlying causal network. What marks it empty is that its network is not properly grounded in an object. This can come about in two different ways.

First, a name may be introduced as a result of a false posit: a person wrongly thinks that an entity exists. Since there is nothing there he does not really name anything. His attempted grounding fails. But he tells people about his experience, believing it real, and a network grows. Names for various monsters may well have histories of this kind.

Second, a name may be introduced in what is explicitly or implicitly on work of fiction: a story, novel, film etc. Suppose that somebody (Say, Zappa) is not hallucinating but rather is bent on cashing in on the general fascination with science fiction. He writes a novel

about an extraterrestrial name "Tilda". Out of his imaginative act of network for the name grows up that is not grounded in an object.

This theory can give account of singular existent statement. The skeptical who responds to Zappa's alleged encounter with an extraterrestrial by claiming

Tilda does not exist.

will be saying something which is both meaningful and the true. It is meaningful because the name has an underlying causal network. It is true because its network is not grounded in an object.

The theory discussed so far makes reference change impossible for the reference of a name in immutably fixed at a dubbing. So the theory's account of language change is deficient. We have discussed how additions to the language occur through dubbings. It is clear how a name ties out: people seem to add new links to its network by using the name. However, there is no explanation of how the reference of a name can change.

G. Evans,¹³ has emphasized the importance of such explanation. He expresses this point with the help of examples. Let us take one such example. Twins A and B are born and dubbed "Shah" and "Dawn" respectively. After the ceremony the twins are somehow mixed up: every one calls A "Down" and B "Shan". The mistake is never discovered. The twins grow up, and grow apart with each invariably misnamed. Twin A turns out to be fiery, aggressive and physical, quite unlike twin B, who is mild self effacing and intellectual. What do we say of the boringly many utterances, "Dawn is fierce" and "Shan is mild"? Our simple version of causal theory gives the wrong result twin B was dubbed "Dawn" and B is not fierce. Hence all those "Dawn is fierce" tokens should be false. Yet they are surely not false. We want to say

that all the years of callings A “Dawn” and B “Shan” have resulted in these being their names. The names have changed the references since the dubbing.

Thus a more sophisticated causal theory is now needed. Its central idea is that a name is typically multiply grounded in its bearer. In our original sketch, the reference of a name was fixed at a dubbing. All subsequent uses of the name were parasitic on that dubbing. What this account misses is that many uses of a name are relevantly similar to a dubbing. They are similar in that they involve the application of the name to the object in a direct perceptual confrontation with it. The social ceremony of introduction provides the most obvious examples: some one says, “This is Nana”, pointing to the cat in question. Remarks prompted by observation of an object may provide others observing Nana’s behavior someone says, “Nana is Skittish tonight”. Such uses of a name ground it in its bearer just as effectively as does a dubbing. As a result it becomes multiply grounded. The dubbing does not bear all the burden of linking a name to the world.

Let us return to the twins’ example and the problem of reference change. The name “Dawn” was grounded in B at the dubbing, but from then on always grounded in A. The initial grounding in B pales into insignificance when compared with these thousands of grounding in A. So “Dawn” now designates A.

Nathan Salmon brings all the arguments given in favour of direct reference theory under one of the three main kinds. These are modal arguments, epistemological arguments and semantical arguments. Let us sum up these arguments.

The modal arguments

Let us consider the name “Shakespeare” as used to refer to the famous English dramatist. Let us consider now the property which someone – e.g., the speaker, the audience – might associate with the name as forming its sense on a particular occasion. These properties might include Shakespeare’s distinguishing characteristics or the criteria by which we identify him, such properties as being a famous English poet and playwright in the late 16th and early 17th centuries, authorship of several classic plays including *Hamlet*, *Macbeth*, and so on. This list may even include relational properties, as long as it does not include Shakespeare’s haecceity his property of being this very individual. The latter property is not the sort of property that Frege or his followers propose as forming part of the sense of a name.

Suppose then the name “Shakespeare” simply means “the person having this property, whoever he or she may be” or for simplicity, “the English playwright who wrote *Hamlet*, *Macbeth* etc.” Consider now the following sentences:

Shakespeare, if he exists wrote *Hamlet* and *Macbeth*.

If any one is English playwright who is the sole author of *Hamlet*, *Macbeth*, then he is Shakespeare.

If the descriptive theory of name is correct, then by substituting for the name its longhand synonym we find that these two sentences taken together simply mean: someone is the English playwright who wrote *Hamlet* and *Macbeth* if and only if he is the English playwright who wrote *Hamlet*, and *Macbeth*. That is if the descriptive theory is correct, the sentences displayed above should express *logical truths* – indeed they should be analytic sentences in the traditional sense. It should therefore express necessary truths, propositions true with respect to all possible

worlds. But surely it is not at all necessary that someone is Shakespeare if and only if he is an English playwright who wrote *Hamlet* and *Macbeth*. It might have happened that Shakespeare existed but never came to write these works. It might have come to pass that Shakespeare selected to enter a profession in law instead of becoming a writer. Certainly, this is a possibility. Hence the first sentence displayed above does not express a necessary truth. There are possible circumstance with respect to which it is false. Again, assuming Shakespeare has gone into law instead of drama, it could have come to pass that someone other than Shakespeare should go on to write this play. That is, it is not impossible that someone other than Shakespeare should write this play. Hence even the second sentence displayed above expresses only a contingent truth. It follows that the name "Shakespeare" is not descriptive in term of the properties mentioned.

The intuition that the two sentences displayed above are false with respect to certain possible worlds supports and is supported by a complimentary intuition. The intuition is that the name "Shakespeare" continues to denote the same person even with respect to counterfactual situation in which this individual lacks all of the distinguishing that we actually use to identify him. Since the name "Shakespeare" continues to denote the same individual even in discourse about a counterfactual situation in which not he but some other English man wrote *Hamlet* and *Macbeth*, the two sentences displayed above must be false in such discourse. Thus the main intuition behind the modal arguments is intimately connected with a related linguistic intuition concerning the denotation of proper name with respect to other possible world.

Salmon¹⁴ Contains that there is a weakness in the modal argument. They show only that names are not descriptive in term of the simple sorts of properties that come readily to mind, properties like

the authorship of a certain work. This is a significant finding. These are the sorts of properties that Frege himself sites as giving the sense of a name for an individual user. But faced with the modal argument, some descriptive theorists, such as Linsky and Platinga moved to a fancier descriptions employing modally indexed property, like the property of *actual* authorship of a certain work. It can hardly be objected, write Salmon, in the style of the modal argument just consider that there are possible world in which Shakespeare does not *write Hamlet –in –the-actual world*. Shakespeare wrote *Hamlet* in the actual world and it follows that it is necessary that Shakespeare *actually* wrote *Hamlet*. Thus the modal arguments seem ineffective against the thesis that proper names are descriptive in the Linskian way.

There are two serious problems with this move. First, terms such as 'actual', are precisely the sorts of terms to which the theory of direct reference applies. The property of actual authorship of a certain work is not a purely qualitative property of the sort that the orthodox theory demands. Second, though the modal arguments may no longer apply to the modally indexed version of the descriptive theory the epistemological and semantical arguments are unaffected by this recent epicycle on the descriptive theory.

The Epistemological Argument

Let us consider again the two sentences.

Shakespeare, if he exists wrote *Hamlet* and *Macbeth*.

If any one is English playwright who is the sole author of *Hamlet*, *Macbeth*, than he is Shakespeare.

The descriptive theory alleges that these sentences are analytic in the traditional sense. Assuming that the descriptive theory is correct, it would follow that both of this sentences convey information that in

knowable *a-priori*, i.e., knowable solely by reflection on the concepts involved and without recourse to sensory experience. If the name 'Shakespeare' were really descriptive in terms of the mentioned properties, it should be impossible to conceive that Shakespeare existed though he did not write any of these works, or that somebody other than Shakespeare was responsible for each of these works. Imagining that Shakespeare existed without these attributes should be as difficult as imagining a 'married bachelor'. Moreover, the consequences that these sentences convey *a-priori* knowledge obtains even if the name Shakespeare is held to be descriptive in terms of modally indexed property. Even if the name 'Shakespeare' means something like "the individual, whoever he may be, who was *actually* a playwright and who *actually* still be knowable *a-priori* that someone is Shakespeare if and only if he is the British playwright who wrote *Hamlet* and *Macbeth*. But it is not difficult to imagine circumstances in which it is discovered that, contrary to popular belief, 'Shakespeare' did not write *Hamlet* and *Macbeth* or any other work commonly attributed to him. Since this possibility is not automatically precluded by reflection on the concepts involved, it follows that the first sentence displayed above conveys information that is knowable only *a-posteriori*. One can even imagine circumstances in which it is discovered that we have been the victims of a massive hoax, and that, though Shakespeare is not responsible for any of these works, some other Englishman wrote every work commonly attributed to 'Shakespeare'. This means that even the second sentence displayed above is not analytic or true by definition, but conveys genuine *a-posteriori* information.

The Semantical Arguments

The semantical arguments are the strongest and most persuasive of the three kinds of arguments. This is offered by Donnellan, Kaplan, Kripke and Putnam. One example is Donnellan's concerning Thales. Let

us consider the set of properties which might be associated with the name 'Thales' as giving its sense according to the Fregean theory. Linskey, a Fregean critic of the direct reference theory, contents that the sense of a name like Thales may be determined by some simple description, say "the Greek philosopher who held that all is water". On the descriptonal theory, the name denotes whoever happens to satisfy this description. Suppose now that due to some error the man referred to writers such as Aristotle, from whom our use of name 'Thales' derives, never genuinely believe that all is water. Suppose further that by a strange coincidence there was indeed a Greek philosopher who did in fact hold this bizarre view, though he was unknown to them and bears no historical connection to us. To which of these two philosophers would our name 'Thales' refer? This is the clear semantical question with our name 'Thales' refer? This the clear semantical question with a clear answer. The name would refer to 'Thales'. Our use of the name would bear no significant whatsoever. It is only by way of accident that he enters into the story.

This example is not to be confused with the corresponding modal or epistemological arguments. In the modal and epistemological argument, the main question is what the truth-value of a sentence like 'Thales' is the Greek philosopher who held that all is water", which is alleged to be true by definition, becomes when the sentence is evaluated with respect to certain imagine circumstances that are possible in either a metaphysical or an epistemic sense. The strategy in the semantical arguments is more direct. The issue here is not whom the name *actually* denotes *with respect to* the imagine circumstances. Rather the issue is whom the name would denote if the circumstances described above *were to obtain*. The modal arguments are directly related to the question of what a particular term denote *with respect to another possible world*. The semantical arguments are directly concern with the non-modal question of denotation simpliciter. The key phrase in

the definition of a descriptive singular term is not “denote with respect to a possible world”, but “whoever or whatever uniquely has this properties”. On any descriptive theory of names precisely whom a name denotes depends entirely on whoever happens to have certain properties uniquely. The theory predicts that, if this circumstances were have to obtain the name would denote the harmit instead of Thales, and Linsky explicitly acknowledges that he is prepared to accept such consequences as this¹⁵. But here the theory is simply mistaken. The existence of harmit philosopher would be irrelevant to the denotation associated with our use of the name Thales.

Kaplan On ‘Dthat’

In this connection, it is worth bringing in Kaplan’s theory of direct reference, especially his notion of ‘dthat’¹⁶ which carries the import of singular reference. Kaplan’s is a theory of singular reference which has the unique distinction of keeping the Kripkean mode of rigid reference with a modicum of the Fregean sense such that reference for him is no more a matter of pure ostension, but of reference with contextual determinations and the speaker’s intentions. Thus, for Kaplan, we must understand the use of ‘dthat’ only with reference to the speaker’s parameters of contextualized intentions and the possible determinations of the sense of the linguistic symbols. Kaplan writes :

I will speak of a demonstrative use of a singular denoting phrase when the speaker intends that the object for which the phrase stands be designated by an associated demonstration.¹⁷

That is to say that the demonstrative use of a referring expression must be accompanied by the associated contextual determinations and the speaker’s intentions. Speaker’s intentions matter for the reason that

without referring to what the speaker intends to do we cannot understand what he refers to.

But reference in the proper context must be indicated by the reference-indicating device 'dthat' which is supposed to indicate that a singular reference has been made to an object in the right context. 'Dthat' is the referential device that shows that a certain reference has been made as in the following example:

Dthat (the speaker points to a picture) is a picture of one of the greatest philosophers of the twentieth century.

Here the speaker is referring to a picture hanging on the wall, it being the picture of Rudolf Carnap. The singular reference is to Carnap's picture and not to anything else. 'Dhat' shows that the reference is uniquely fixed in this case.

But suppose that without the speaker's knowledge Carnap's picture has been replaced by that of Spirow Agnew. In this case, is there still singular reference? Kaplan is of the opinion that singular reference does not remain intact if the object itself has been misidentified. Though the speaker intends to refer to Carnap's picture only, he has by mistake referred to Agnew's picture. That is why the reference has not been successful as the speaker's intention has not been taken into account. That is why Kaplan holds that singular reference must take into account the speaker's intention. The latter alone can guarantee what has been referred to in a given context.

Kaplan, like Kripke, believes that reference across possible worlds is a must if the determinate character of reference has to be laid down. We can therefore utter a proper name that can refer to an object in a possible

world such that we can determine the truth-value of the sentence in which the name occurs. Kaplan writes:

The content of an utterance is that function which assigns to each possible world the truth value which the utterance would take if it were evaluated with respect to that world.¹⁸

The utterance takes its truth from the fact that it refers to a possible world in a unique way. Here also the role of 'dthat' can be fixed in the following way :

Dthat (the first child to be born in the twenty-first century) will be bald.

Here there is a reference to a possible world in which a child yet to be born will be bald. The reference is to a child who does not exist now in the actual world but is in a possible world. Thus reference can be made to a possible world with the help of 'dthat'.

According to Kaplan, reference-fixing is done in a linguistic as well as social context such that the act of referring is pinned down to the speaker's social and linguistic world. It is only from the speaker's point of view that reference can be given a determinate character. The necessity of such identity statement as the following remains intact because of the determinate character of the symbols involved :

Dthat (the morning star) is identical with dthat (the evening star).

Here the statement is a case of identity in which necessity is preserved because of the rigidity of reference in the Kripkean sense. Kaplan is of the opinion that 'dthat' makes rigid reference necessity-preserving.

An assessment

Russell used the four puzzles and (implicitly) his Spot-Check argument to attack the view that ordinary proper names are Millian names, in favour of the Description Theory. In turn, Kripke attacked the Description Theory in favour of the claim that ordinary proper names are rigid designators. But the latter claim does not quite amount to Millianism, for not all rigid designators are Millian names.

A Millian name is one that has no meaning but its bearer or referent. Its sole function is to introduce that individual into discourse; it contributes nothing else to the meaning of a sentence in which it occurs. If we say "Jason is fat," and "Jason" is a standard proper name, then the meaning of that sentence consists simply of the person Jason himself concatenated with the property of being fat.

Being Millian certainly implies being rigid. But the reverse does not hold. Although Kripke cites Mill and argues that names are rigid, rigidity does not imply being Millian. For definite descriptions can be rigid. Suppose we fall in with the prevalent view that *arithmetical* truths are all necessary truths. Then there are arithmetical descriptions, such as "the positive square root of nine," that are rigid, because they designate the same number in every possible world, but are certainly not Millian because in order to secure their reference they exploit their conceptual content. Indeed, they seem to Russellize: "The positive square root of nine" seems to mean whatever positive number yields nine when multiplied by itself. So that description is not Millian even though it is rigid, because it does not simply introduce its bearer (the number three) into the discourse; it also characterizes three as being something which when multiplied by itself yields nine. Thus, in defending the rigidity of names, Kripke did not thereby establish the stronger claim.

(Nor did he intend to; he does not believe that names are Millian).

However, other philosophers have championed the Millian conception, which has come to be called the "Direct Reference" theory of names. The first of these in our century was Ruth Marcus (1960,1961), cited by Kripke as having directly inspired his work. Subsequent Direct Reference (DR) theories of names have been built on Marcus' and Kripke's work (for example, Kaplan (1975) and Salmon (1986)).

The latter theorists have extended Direct Reference to cover some other singular terms, notably personal and demonstrative pronouns such as "I," "you," "she," "this," "that," as well as names. (An obvious problem about extending Direct Reference to pronouns is that any normal speaker of English knows what they mean, whether or not the speaker knows whom they are being used to designate on a given occasion).

Of course, Direct Reference must confront the four puzzles, which are generated just as surely by names as they are by descriptions. And, obviously, the Direct Reference theorist cannot subscribe to Russell's solution or anything very like it, for according to Direct Reference, names do nothing semantically but stand for their bearers.

Let us reconsider the Substitutivity puzzle first. Recall our sentence:

(1) Albert believes that Samuel Longhorne Clemens has a pretty funny middle name.

(1) goes false when "Mark Twain" is substituted for "Samuel Longhorne Clemens." How can Direct Reference explain or even tolerate that fact?

Direct Reference theorists employ a two-pronged strategy. There is a positive thesis and there is a negative thesis (though these are not often explicitly distinguished). The positive Direct Reference thesis is that the names in question really do substitute without altering the containing sentence's truth-value. On this View,

(2) Albert believes that Mark Twain has a pretty funny middle name is true, not false. At the very least, belief sentences have transparent readings or understandings, on which readings the names that fall within the scope of "believes" really do just refer to what they refer to.

We naturally think otherwise; (2) does not seem true to us. That is because when we see a belief sentence, we usually take its complement clause to reproduce the ways in which its subject would speak or think. If I assert (2), I thereby somehow imply that Albert would accept the *sentence* "Mark Twain has a pretty funny middle name" or something fairly close to it. If I say, "Albert doesn't believe that Mark Twain has a pretty funny middle name," I am suggesting that if faced with the sentence "Mark Twain has a pretty funny middle name," Albert would say either "No" or "I wouldn't know."

But the Direct Reference theorists point out that such suggestions are not always true, perhaps not ever true. Consider:

(3) Columbus reckoned that Castro's island was only a few miles from India.

We all know what one would mean in asserting (3); the speaker would mean that when Columbus sighted Cuba he thought that he was already in the East Indies and was approaching India proper. Of course, being

450 years early, Columbus did not know anything about Fidel Castro; yet we can assert (3) with no presumption that its complement clause represents things in the way that Columbus himself represented them. *The speaker* makes this reference to Cuba without at all assuming that Columbus would have referred to Cuba in that way or in any parallel or analogous way.

So it seems undeniable that there are transparent positions inside belief sentences, in which the referring expression does just refer to its bearer, without any further suggestion about the way in which the subject of the belief sentence would have represented the bearer. Singular terms can be and are often understood transparently. We might even say:

(4) Some people doubt that Tully is Tully,

meaning that some people have doubted of the man Cicero that he was also Tully. That would perhaps be a minority interpretation of (4), but we *can* at least hear (4) as asserting that the people doubt of Cicero that he was Tully.

Virtually all the Direct Reference literature has been devoted to establishing the positive thesis, that names do have Millian readings even in belief contexts. But the positive thesis is far from all that the DR theorist needs. For although we may be persuaded that every belief sentence does have a transparent reading, most of us also remain convinced that every belief sentence also has an opaque reading, that on which some substitutions turn truths into falsehoods: *in one sense* Columbus believed that Castro's island was just a few miles east of India, but in another, he believed no such thing, for the obvious reason that he had never heard (and would never hear) of Castro. Yet it seems Direct Reference cannot allow so *much* as a sense in which belief

contexts are opaque. That is DR's negative thesis: that names do not have non-Millian readings, even in belief contexts.

The problem gets worse: it is hard to deny that the opaque readings are more readily heard than the transparent readings. Indeed, that is implicitly conceded by the Direct Reference theorists, in that they know they have had to work to make us hear the transparent readings. The Direct Reference theorists must try to explain the fact away as a particularly dramatic illusion. That is, they must hold that in fact, sentences like (1)-(4) cannot literally mean what we can and usually would take them to mean; there is some extraneous reason why we are seduced into hearing such sentences opaquely

As is implied by example (4), Frege's Puzzle is even worse for the Millian. According to DR, a sentence like "Samuel Longhorne Clemens = Mark Twain" can mean only that the common referent, however designated, is himself. Yet such a sentence is virtually never understood as meaning that. And anyone might doubt that Clemens is Twain, seemingly without doubting anyone's self-identity. Here again, the DR theorist bears a massive burden, of explaining away our intuitive judgments as illusory.

The Problems of Apparent Reference to Nonexistent and Negative Existential are if anything worse yet. If a name's meaning is simply to refer to its bearer, then what about all those perfectly meaningful names that have no bearers?

We have come to a deep dilemma, nearly a paradox. On the one hand, we have seen compelling Kripkean reasons why names cannot be thought to abbreviate flaccid descriptions, or otherwise to have substantive senses or connotations. Intuitively, names are Millian. Yet because the original puzzles are still bristling as insistently as ever, it

also seems that DR is pretty well refuted. This is a dilemma, or rather trilemma, because it has further seemed that we are stuck with one of those three possibilities: either the names are Millian, or they abbreviate descriptions outright, or in some looser way such as Searle's they have some substantive "sense" or content. But none of these views is acceptable.

A few theorists have claimed to find ways between the three horns. Plantinga (1978) and Ackerman (1979) have appealed to rigidified descriptions. Devitt (1989, 1996) has offered a radical revision of Frege's notion of sense. Lycan (1994) have offered a much subtler, more beautiful and more effective weakened version of DR.

We must now make a crucial distinction. So far we have been talking about the *semantics of proper names*, that is, about theories of what names contribute to the meanings of sentences in which they occur. DR in particular takes for granted the idea of a name's referent or bearer. But then a separate question is, in virtue of what is a thing the referent or bearer of a particular name? Semantics leaves that question to philosophical analysis. A *philosophical theory of referring* is a hypothesis as to what relation it is exactly that ties a name to its referent - more specifically, an answer to the question of what it takes for there to be a referential link between one's utterance of a name and the individual that gets referred to by that utterance.

Semantical theories of names and philosophical accounts of referring vary independently of each other. The difference was blurred by Russell and by Searle, because each gave a very similar answer to both questions. Russell said that a name gets its meaning, and contributes to overall sentence meaning, by abbreviating a description; *also*, what makes a thing the bearer of the name is that the thing uniquely satisfies the description. Likewise for Searle and his clusters.

But now let us notice that if one is a DR theorist, that alone tells us nothing about what attaches a name to its referent. The same goes for Kripke's weaker rigidity thesis; up till now, he has been talking semantics only, and we have seen nothing of his theory of referring. To that we now turn.

A Summary of the Causal-Historical Theory

Most of Kripke's objections to the Name Claim and to descriptions semantics generally will also translate into objections to the Description Theory of proper of referring. The description theory will predict the wrong referent or no referent at all (as when there is no particular description the speaker has in mind).

Kripke sketches a better idea. He begins memorably: "Someone, let's say, a baby, is born ..." He continues:

[The baby's] parents call him by a certain name. They talk about him to their friends. Other people meet him. Through various sorts of talk the name is spread from link to link as if by a chain. A speaker who is on the far end of this chain, who has heard about, say Richard Feynman, in the market place or elsewhere, may be referring to Richard Feynman even though he can't remember from whom he first heard of Feynman or from whom he ever heard of Feynman. He knows that Feynman was a famous physicist. A certain passage of communication reaching ultimately to the man himself does reach the speaker. He then is referring to Feynman even though he can't identify him uniquely.

The idea, then, is that my utterance of "Feynman" is the most recent link in a causal-historical chain of reference-borrowings, whose first link is the event of the infant Feynman's being given that name. I got the name from somebody who got it from somebody else who got it from

somebody else who got it from somebody else. . . , all the way back to the naming ceremony. We do not have to be in any particular cognitive state of Russell's or Searle's sort. Nor need we have any interesting true belief about Feynman, or as to how we acquired the name. All that is required is that a chain of communication in fact has been established by virtue of my membership in a speech community that has passed the name on from person to person, which chain goes back to Feynman himself.

Of course, when a new user first learns a name from a predecessor in the historical chain, it can only be by the newbie's and the predecessor's sharing a psychologically salient backing of identifying descriptions. But as before, there is no reason to assume that that particular backing of descriptions fixes the name's sense. It is needed only to fix the reference. So long as the newbie has a correct identificatory fix on the predecessor's referent, the newbie can then freely use the name to refer to that person.

Taken at face value, this causal-historical view makes the right predictions about examples such as Donnellan's Tom. In each example, referring succeeds because the speaker is causally connected to the referent in an appropriate historical way.

Kripke offers the further case of the biblical character Jonah.. Kripke points out that we should distinguish between stories that are complete legends and stories that are, rather, substantially false accounts of real people. Suppose historical scholars discover that in fact no prophet was ever swallowed by a big fish, or did anything else attributed by the Bible to Jonah. The question remains of whether the Jonah character was simply made up in the first place, or whether the story is grounded ultimately in a real person. Actually there are subcases: someone could have made up and spread a host of false

stories about Jonah immediately after his death; or because Jonah was an exciting individual, all sorts of rumors and stories began to circulate about him, and the rumors got out of hand; or there might have been a very gradual loss of correct information and accretion of false attributions over the centuries. But in either of these cases, it seems that today the Bible is saying false things about the real person, Jonah.

It might be thought that *ambiguous* names — names borne by more than one person — pose a problem for the causal-historical view. This is no problem at all for description theories, because according to description theories, ambiguous names simply abbreviate different descriptions. (If anything, description theories make proper names *too richly* ambiguous.) But what if we endorse DR, and we deny that names have senses or descriptive connotations in any sense at all? The Causal-Historical Theory of referring has a straightforward answer to the question of ambiguous names: if a name is ambiguous, that is because more than one person has been given it. What disambiguates a particular use of such a name on a given occasion is — what else? — that use's causal-historical grounding, specifically the particular bearer whose naming ceremony initiated its etiology.

Kripke emphasizes that he has only sketched a picture; he does not have a worked-out theory. The trick will be to see how one can take that picture and make it into a real theory that resists serious objections. The only way to make a picture into a theory is to take it over literally, to treat it as if it were a theory and see how it needs to be refined. Kripke does just that, though he leaves the refinement to others.

Problems for the Causal-Historical Theory

The causal-historical theory has many merits, but it is not problem-free. The causal-historical view's key notion is that of the

passing on of reference from one person to another. But not just any such transfer will do. First, we must rule *out* the "naming after" phenomenon. My boyhood friend John Lewis acquired a sheepdog, and named it "Napoleon" after the emperor; he had the historical Napoleon explicitly in mind and wanted to name his dog after that famous person. "Naming after" is a link in a causal-historical chain: it is *only* because the emperor was named "Napoleon" that John Lewis named his dog that. But it is the wrong kind of link. To rule it *out*, Kripke requires that "[w]hen the name is 'passed from link to link', the receiver *of* the name must. . . intend when he learns it to use it with the same reference as the man from whom he heard it". This requirement was clearly not met by John Lewis, who was deliberately changing the referent from the emperor to the dog and meant his friends to be well aware of that.

Second, Kripke adduces the example of "Santa Claus." There may be a causal chain tracing our use *of* that name back to a certain historical saint, probably a real person who lived in eastern Europe centuries ago, but no one would say that when children use it they unwittingly refer to that saint; clearly they refer to the fictional Christmas character. But then, how does "Santa Claus" differ from "Jonah"? Why should we not say that there was a real Santa Claus, but that all the mythology about him is garishly false? Instead, of course, we say that there is no Santa Claus. We use the name "Santa Claus" as though it abbreviates a description. A similar example would be that *of* "Dracula." It is well known that the contemporary use *of* that name goes back to a real Transylvanian nobleman called "Vlad". But of course when we now say "Dracula" we mean the vampire created by Bram Stoker and portrayed by Bela Lugosi in the famous movie.

Having merely raised the problem, Kripke does not try to patch his account in response, but moves on. Probably the most obvious feature to note is that "Santa Claus" and "Dracula" as we use those

names are associated with very powerful stereotypes, indeed cultural icons in the United States. Their social roles are so prominent they really have ossified into fictional descriptions, in a way that "Jonah" has not even among religious people. In a way, Jonah's iconic properties are side by side with his historical properties in the Old Testament, but as we might say, "Santa Claus" and "Dracula" are pure icons. And for the average American, the myth utterly dwarfs the historical source.

As Kripke says, much work is needed. Devitt ¹⁹ (1981a) offers a fairly well developed view that does qualify as a theory rather than only a picture.

However, here are a few objections that would apply to any version of the Causal-Historical Theory as described above.

Objections

We have been offered the notion of a causal-historical chain leading back in time from our present uses of the name to a ceremony in which an actual individual is named. But how, then, can the Causal-Historical Theorist accommodate empty names, names that have no actual bearers? Perhaps the best bet here is to exploit the fact that even empty names are introduced to the linguistic community at particular points in time, either through deliberate fiction or through error of one kind or another. From such an introduction, as Devitt (1981) and Donnellan (1974) point out, causal-historical chains begin spreading into the future just as if the name had been bestowed on an actual individual. So reference or "reference" to nonexistent is by causal-historical chain, but the chain's first link is the naming event itself rather than any putative doings of the nonexistent bearer.

that we now turn.

A Summary of the Causal-Historical Theory

Most of Kripke's objections to the Name Claim and to descriptions semantics generally will also translate into objections to the Description Theory of proper of referring. The description theory will predict the wrong referent or no referent at all (as when there is no particular description the speaker has in mind).

Kripke sketches a better idea. He begins memorably: "Someone, let's say, a baby, is born ..." He continues:

[The baby's] parents call him by a certain name. They talk about him to their friends. Other people meet him. Through various sorts of talk the name is spread from link to link as if by a chain. A speaker who is on the far end of this chain, who has heard about, say Richard Feynman, in the market place or elsewhere, may be referring to Richard Feynman even though he can't remember from whom he first heard of Feynman or from whom he ever heard of Feynman. He knows that Feynman was a famous physicist. A certain passage of communication reaching ultimately to the man himself does reach the speaker. He then is referring to Feynman even though he can't identify him uniquely.

The idea, then, is that my utterance of "Feynman" is the most recent link in a causal-historical chain of reference-borrowings, whose first link is the event of the infant Feynman's being given that name. I got the name from somebody who got it from somebody else who got it from somebody else who got it from somebody else. . . ., all the way back to the naming ceremony. We do not have to be in any particular cognitive state of Russell's or Searle's sort. Nor need we have any interesting true

belief about Feynman, or as to how we acquired the name. All that is required is that a chain of communication in fact has been established by virtue of my membership in a speech community that has passed the name on from person to person, which chain goes back to Feynman himself.

Of course, when a new user first learns a name from a predecessor in the historical chain, it can only be by the newbie's and the predecessor's sharing a psychologically salient backing of identifying descriptions. But as before, there is no reason to assume that that particular backing of descriptions fixes the name's sense. It is needed only to fix the reference. So long as the newbie has a correct identificatory fix on the predecessor's referent, the newbie can then freely use the name to refer to that person.

Taken at face value, this causal-historical view makes the right predictions about examples such as Donnellan's Tom. In each example, referring succeeds because the speaker is causally connected to the referent in an appropriate historical way.

Kripke offers the further case of the biblical character Jonah. Kripke points out that we should distinguish between stories that are complete legends and stories that are, rather, substantially false accounts of real people. Suppose historical scholars discover that in fact no prophet was ever swallowed by a big fish, or did anything else attributed by the Bible to Jonah. The question remains of whether the Jonah character was simply made up in the first place, or whether the story is grounded ultimately in a real person. Actually there are subcases: someone could have made up and spread a host of false stories about Jonah immediately after his death; or because Jonah was an exciting individual, all sorts of rumors and stories began to circulate

about him, and the rumors got out of hand; or there might have been a very gradual loss of correct information and accretion of false attributions over the centuries. But in either of these cases, it seems that today the Bible is saying false things about the real person, Jonah.

It might be thought that *ambiguous* names — names borne by more than one person — pose a problem for the causal-historical view. This is no problem at all for description theories, because according to description theories, ambiguous names simply abbreviate different descriptions. (If anything, description theories make proper names *too richly* ambiguous.) But what if we endorse DR, and we deny that names have senses or descriptive connotations in any sense at all? The Causal-Historical Theory of referring has a straightforward answer to the question of ambiguous names: if a name is ambiguous, that is because more than one person has been given it. What disambiguates a particular use of such a name on a given occasion is — what else? — that use's causal-historical grounding, specifically the particular bearer whose naming ceremony initiated its etiology.

Kripke emphasizes that he has only sketched a picture; he does not have a worked-out theory. The trick will be to see how one can take that picture and make it into a real theory that resists serious objections. The only way to make a picture into a theory is to take it over literally, to treat it as if it were a theory and see how it needs to be refined. Kripke does just that, though he leaves the refinement to others.

Problems for the Causal-Historical Theory

The causal-historical theory has many merits, but it is not problem-free. The causal-historical view's key notion is that of the passing on of reference from one person to another. But not just any

such transfer will do. First, we must rule *out* the "naming after" phenomenon. My boyhood friend John Lewis acquired a sheepdog, and named it "Napoleon" after the emperor; he had the historical Napoleon explicitly in mind and wanted to name his dog after that famous person. "Naming after" is a link in a causal-historical chain: it is *only* because the emperor was named "Napoleon" that John Lewis named his dog that. But it is the wrong kind of link. To rule it *out*, Kripke requires that "[w]hen the name is 'passed from link to link', the receiver *of* the name must. . . intend when he learns it to use it with the same reference as the man from whom he heard it". This requirement was clearly not met by John Lewis, who was deliberately changing the referent from the emperor to the dog and meant his friends to be well aware *of* that.

Second, Kripke adduces the example of "Santa Claus." There may be a causal chain tracing our use *of* that name back to a certain historical saint, probably a real person who lived in eastern Europe centuries ago, but no one would say that when children use it they unwittingly refer to that saint; clearly they refer to the fictional Christmas character. But then, how does "Santa Claus" differ from "Jonah"? Why should we not say that there was a real Santa Claus, but that all the mythology about him is garishly false? Instead, of course, we say that there is no Santa Claus. We use the name "Santa Claus" as though it abbreviates a description. A similar example would be that *of* "Dracula." It is well known that the contemporary use *of* that name goes back to a real Transylvanian nobleman called "Vlad". But of course when we now say "Dracula" we mean the vampire created by Bram Stoker and portrayed by Bela Lugosi in the famous movie. .

Having merely raised the problem, Kripke does not try to patch his account in response, but moves on. Probably the most obvious feature to note is that "Santa Claus" and "Dracula" as we use those

names are associated with very powerful stereotypes, indeed cultural icons in the United States. Their social roles are so prominent they really have ossified into fictional descriptions, in a way that "Jonah" has not even among religious people. In a way, Jonah's iconic properties are side by side with his historical properties in the Old Testament, but as we might say, "Santa Claus" and "Dracula" are pure icons. And for the average American, the myth utterly dwarfs the historical source.

As Kripke says, much work is needed. Devitt ¹⁹ (1981a) offers a fairly well developed view that does qualify as a theory rather than only a picture.

However, here are a few objections that would apply to any version of the Causal-Historical Theory as described above.

Objections

We have been offered the notion of a causal-historical chain leading back in time from our present uses of the name to a ceremony in which an actual individual is named. But how, then, can the Causal-Historical Theorist accommodate empty names, names that have no actual bearers? Perhaps the best bet here is to exploit the fact that even empty names are introduced to the linguistic community at particular points in time, either through deliberate fiction or through error of one kind or another. From such an introduction, as Devitt (1981) and Donnellan (1974) point out, causal-historical chains begin spreading into the future just as if the name had been bestowed on an actual individual. So reference or "reference" to nonexistent is by causal-historical chain, but the chain's first link is the naming event itself rather than any putative doings of the nonexistent bearer.

Second, Evans, as we have seen, points out that names can change their reference unbeknownst, through mishap or error, but the Causal-Historical Theory as presented so far cannot allow for that. According to Evans, the name "Madagascar" originally named, not the great African island, but a portion of the mainland; the change was ultimately due to a misunderstanding of Marco Polo's. Or:

Two babies are born, and their mothers bestow names upon them. A nurse inadvertently switches them and the error is never discovered. It will henceforth undeniably be the case that the man universally known as "Jack" is so called because a woman dubbed some other baby with the name.

We do not want to be forced to say that our use of "Madagascar" still designates part of the mainland, or that "Jack" continues to refer to the other former baby rather than to the man everyone calls "Jack".

In reply, Devitt²⁰ suggests a move to *multiple grounding*. A naming ceremony, he says, is only one kind of occasion that can ground an appropriate historical chain; other perceptual encounters can serve also. Instead of there being just the single linear causal chain that goes back from one's utterance to the original naming ceremony, the structure is mangrove-like: the utterance proceeds also out of further historical chains that are grounded in later stages of the bearer itself. Once our use of "Madagascar" has a large preponderance of its groundings in the island rather than the mainland region, it thereby comes to designate the island; once our use of "Jack" is heavily grounded in many people's perceptual encounters with the man called that, those groundings will overmaster the chain that began with the naming ceremony.

Third, we can misidentify the object of a naming ceremony. Suppose I am seeking a new pet from the Animal Shelter. I have visited the Shelter several times and noticed an appealing grey tabby; I decide to adopt her. On my next visit I prepare to name her. The attendant brings out a tabby of similar appearance and I believe her to be the same one I intend to adopt. I say, "Here we are again, then, puddy-tat; your name is now 'Liz', after the composer Elizabeth Poston, and I'll see you again after you've had all your shots" (tactfully I do not mention the mandatory neutering). The attendant takes the cat away again. But unbeknownst to me it was the wrong cat, not my intended pet. The attendant notices the mistake, without telling me, recovers the right cat, and gives her shots (etc.). I pick her up and take her home, naturally calling her "Liz" ever thereafter.

The problem is of course that my cat was not given that name in any ceremony. The imposter was given it, even if I had no right to name her. Yet surely my own cat is the bearer of "Liz," not just after subsequent multiple groundings have been established, but even just after the naming ceremony I did perform. (It would be different if I had taken the imposter home and continued to call *her* "Liz.") The multiple-grounding strategy does not seem to help here. Rather, what matters is which cat I *had in mind* and believed I was naming in the ceremony. Devitt²¹ speaks of "abilities to designate," construing these as mental states of a certain sophisticated type. If so, then repair of the Causal-Historical Theory on this point will require a significant foray into the philosophy of mind.

Finally, people can be *categorically* mistaken in their beliefs about referents. Evans cites E. K. Chambers' *Arthur of Britain* as asserting that

King Arthur had a son Anir "whom legend has perhaps confused with his burial place." A speaker in the grip of the latter confusion might say "Anir must be a green and lovely spot"; the Causal-Historical Theory would interpret that sentence as saying that a human being (Arthur's son) was a green and lovely spot. Less dramatically, one might mistake a person for an institution or vice versa. Or one might mistake a shadow for a live human being and give it a name. In none of these cases is it plausible to say that subsequent uses of the name in question really refer to the categorically erroneous item.

Devitt and Sterelny²² (1987) call this the "*qua-problem*." They concede that the celebrant at a naming ceremony, or other person responsible for any of a name's groundings, must not be categorically mistaken and must indeed intend to refer to something of the appropriate category. This is a mild concession to Descriptivism.

There are more objections. The majority position seems to be that Kripke initially overreacted to the Descriptivist picture. He was right to insist that causal historical chains of some kind are required for referring and that descriptions do not do nearly as much work as Russell or even Searle thought they did; but (as critics, including Kripke himself, maintain) there still are some descriptive conditions as well. The trick is to move back in the direction of Descriptivism without going so far as even Searle's weak Descriptivist doctrine. But that does not leave much room in which to maneuver.

Let us now sum up Kripke's notion of rigid designation. Kripke's argument is based mainly on a distinction between what he calls *rigid* and *non-rigid or accidental* designators. A rigid designator is one which designates *the same object in all possible worlds*; i.e., if it designates a certain object in the *actual* world then it designates the *same* object in all

other possible worlds in which the object exists at all (it being conceivable that there are some possible worlds in which the object does not exist). A non-rigid designator, on the other hand, is one which does not designate the same object in all possible worlds; i.e., there are possible worlds in which the designator designates objects that are different from what it designates in the actual world. 'The square root of 4' is a rigid designator for it designates the same object, namely, the number 2 (supposing that a number is an object), in all possible worlds; but 'the President of the USA in 1970' is a non-rigid designator for it does not designate the same individual in all possible worlds: it designates Richard Nixon in the actual world, but that is only due to the actual outcome of the relevant Presidential election, and the result of the election need not have been what it actually was; the result of the election might have been different and a different man might have been elected, in which case 'the President of the USA in 1970' would have designated that other man.

In terms of this distinction between rigid and non-rigid designators, we can now formulate Kripke's basic argument against the theory that proper names have sense as well as reference. The following is the formulation of the argument.

If a proper name has a sense then the reference of the proper name is determined by its sense, i.e., there is associated with a proper name a certain condition, whatever that condition may be, and an object is designated by the name *if and only if* it satisfies that condition. If this is how the reference of a proper name is determined then a proper name cannot be a rigid designator; at least it cannot *in general* be a rigid designator. For, there is no guarantee that the object which satisfies the condition associated with the proper name in the actual world would also satisfy it in all other possible worlds. It may well be that some other

object satisfies the condition in another world. In fact, *if* the reference of a proper name is determined by its sense, it will be a non-rigid designator and behave exactly like 'the President of the USA in 1970'. But a proper name *is* a rigid designator. Therefore, a proper name does not have any sense.

But how can we show that a proper name is a rigid designator? Kripke's argument for this is quite straightforward. A proper name must be a rigid designator for; otherwise, we could not make counterfactual assertions by their help, as we can actually do. In order to assert that the man who was actually the President of the USA in 1970, by virtue of having won the relevant election, might not have been the President, for it was just a contingent matter of fact that he won the election, we can use the *name* of the person and say 'Nixon might not have been the President of the USA in 1970'. This counterfactual could not mean what it means unless the proper name 'Nixon' designated the same individual in both the actual world, in which he is the President, and the possible world, in which he is not.

Now let us consider briefly whether Kripke's argument really amounts to a refutation of the sense theory of proper names. There is no doubt that the argument is valid in the sense that *if* the premises are all true *then* the conclusion is also true. So, the question is whether the premises of the argument are all true.

The first premise of the argument is: if the proper name has a sense, then there is associated with every proper name a certain condition such that the proper name designates an object if and only if the object satisfies the condition. I think that this premise is true. In order to see that it is, it is necessary clearly to distinguish two significantly different ways in which one may maintain that a proper name is

associated with a condition. One may maintain that a proper name is associated with a condition in that the condition only *fixes the reference* of the name. Again, one may maintain that a proper name is associated with a condition not only in that the condition fixes the reference of the name, but also in that the fulfillment of the condition by the object is strictly *entailed* by its being designated by the name, so that the fulfillment of the condition is *logically* necessary and sufficient for the object's being designated by the name. This distinction would be clear from the following example. One may maintain that the condition involved in the description 'the length of the standard metre bar in Paris' is associated with the designator 'One metre', but *only* by way of determining its reference, and that is why it is logically possible that the length designated by 'One metre' would cease to satisfy the condition—it would cease to satisfy the condition in the logically possible event of the metre bar changing in its length, and would still continue to be designated by the same designator. (Perhaps, under the changed circumstances, we shall use a different condition for fixing the reference of the designator, e.g., the length which is equal to 39.37 inches.) Now, I think that it should be clear that one who wants to maintain that a proper name has *sense* must maintain that some condition or the other is associated with every proper name not in the first but in the second manner. For, if the condition is to constitute the sense or *meaning* of the name, the relation between the condition and the name must be more intimate than what a mere fixing of the reference would demand. There must, in fact, be a *logical connection* between the two.

Let us now consider the second premise of Kripke's argument in our formulation: if the reference of a name is determined by its sense, if, that is, a name designates an object if and only if it satisfies a certain condition, then it cannot be a rigid designator. This premise is really doubtful, especially in view of certain things which Kripke himself has

said. As Kripke has pointed out, some designators which are of this kind *are* rigid designators, e.g., 'the square root of 4'. It is not the case that this designator stands for one number in the actual world and a different number in another possible world. The square root of 4 is 2 in all possible worlds. One, may, however, argue at this point that 'the square root of 4' could be a rigid designator in spite of the fact that its sense determines its reference because the sense consists of a property which is *essential* to the number it designates; but, for the first thing, 'the square root of 4' is not really a proper name, and, for the next, what it designates is not one of those things which are usually supposed to be designated by proper names — persons, things, and places — and it is extremely doubtful whether *they* can be said to have any essential properties. (Recall the well-known philosophical theory that no proposition about a particular — it is only a particular which can be designated by a proper name — can be necessary, that all such propositions are contingently true, if true at all.) But this way out of the difficulty is not open to Kripke himself, because he has not only maintained but has actually argued at length that particular persons and things, typical bearers of proper names, can be said to have essential properties. To quote two of his own examples, the property of being born to the parents to whom he is in fact born is an essential property of Nixon, and the property of being made of the block of wood of which it is actually made is an essential property of a wooden table.

However, we can pursue this line a little more in defence of Kripke. What is important, it may be said, is *not* whether things designated by proper names have essences, but whether these essences play any role in the designation of objects by proper names. It can be argued that they do not. In the first place, Locke may indeed be right in 'maintaining that these *real* essences of things, as these essences have to be, are not in general knowable, and, as such, cannot

be used by those who use proper names. In the second place, even if these essences *are* knowable, it is not by their help that the reference of the proper names is, or need be, determined. What *may* be said to be necessary for (successful) use of proper names is that we should have a means of identifying the objects they are intended to refer to; i.e., we should be in a position to tell *which* objects they are supposed to be names of. But this can be done by the help of *accidental* characteristics: the description which may be used for the purpose of fixing the reference of a proper name need not be *necessarily* satisfied by what the name designates. (We may consider again, at this point, the relation between Nixon and 'the President of the USA in 1970', or the relation between one meter and 'the length of the standard meter bar in Paris'.)

But we are not sure whether it would constitute a defense a Kripke's second premise in our formulation, viz., that if the reference of a name is determined by its sense then it cannot be a rigid designator. This seems to be the line to take if what we want to prove is that a proper name does not have any sense at all. For if it is not the essential property which determines the reference of the name for its users then it is not the essential property which constitutes its sense. But this indeed is a strange, if not an absurd, draw!

This uncertainty over the second premise of the argument which we have attributed to Kripke surely weakens it. We should, nevertheless, take a look at the third premise of the argument: a proper is a rigid designator. This premise has an intrinsic interest of its own, although, if there is anything wrong with the second premise, it would not save Kripke's argument.

I think that being a rigid designator *is* an essential characteristic of a proper name, and that laying emphasis on this and showing its

various important implications are Kripke's major contribution to the subject, even if his argument to refute the sense theory of proper name does not succeed. But Prof. P. K. Sen²³ believes that the basic insight behind the principle that proper names are rigid designators was formulated by John Stuart Mill. At one place, Mill tells us that a proper name is a name of the *thing itself*. Prof. Sen take this to mean that the proper name designates the object which it designates *irrespective* of the properties it may or may not have, *whether or not* it satisfies a certain description, or condition. If, thus, the proper name stands for the thing itself, *independently of all those considerations*, then there is no reason why the proper name should not be a rigid designator. To strengthen this point, we may note that we are, in any case, in need of rigid designators. If we do not have such designators, we shall never be able to say *significantly* that this or that object satisfies or fails to satisfy, such and such conditions, or that this or that object might not have satisfied such and such conditions, or that it satisfies the conditions only contingently, at all. And what could such a designator, a designator which refers to the thing itself, cutting through, so to say, all descriptive trappings, be, if it is not a proper name? The counterfactuals to which Kripke calls our attention do show that we have in proper names such designators as we need. Another basic insight into the nature of proper names was captured quite early by Russell, and is now developed in great detail by David Kaplan in the context of demonstratives in his brilliant (unpublished) monograph 'Demonstratives'. It is that a proper name refers to its referent *directly*, and not via any characteristics. I think that the idea that a designator stands for the object directly and that it stands for the object itself are strictly logically equivalent with each other: a designator stands for the object itself *if and only if* it refers to it directly.

I want to conclude my discussion of the thesis that the proper

name is a rigid designator by saying that it seems to me that this thesis *and* the thesis that it does not have any sense both follow from the *same* basic characteristic, viz., that the proper name stands for the object itself, or, equivalently, that it refers to the object directly. It is not the case that either of these theses is a consequence of the other; in particular, it is difficult to maintain, for reasons we have already discussed, that a proper name's being a rigid designator is a consequence of its not having sense.

Thus, I do not think that what seems to be Kripke's argument against the sense theory of proper names succeeds. But the argument involves a number of ideas which are fundamental to the very notion of a proper name. The roots of all these ideas are to be found, however, in Mill's and Russell's work. The most original part of Kripke's contribution to the subject is the one in which he shows the far-reaching consequences of the fact that a proper name, is a rigid designator.

I should now like to make a few remarks on some contemporary treatments of Russell's and Frege's views of proper names. To begin with Russell, it is now customary to treat Russell's theory of proper names as a *sense theory*, and nearly to obliterate the distinction between his theory and Frege's. But this, no doubt, is a mistake. We can say at most that Russell had two theories, one for ordinary proper names, and another for what he calls 'logically proper names; and that, according to him, the ordinary proper names have sense, though the logically proper names do not. But even this is, in my opinion, misleading. For it is quite clear that what Russell really wants to maintain is that the ordinary proper names are not *genuine* proper names at all, that they are abbreviations of *definite descriptions*. And what is most important is that he maintains this *on the ground* that

ordinary proper names have sense. In fact, if we want to be quite faithful to the philosopher himself, we should say that this too is not an accurate account of his view of the matter. For Russell *does* reject the Fregean theory of sense. It is, therefore, unfair to attribute a sense theory of name to Russell and to bracket him with Frege. Surely, Russell says that the ordinary proper name has *descriptive content*, but what he means by this is only that it can be *expanded into a description*; and that is a very different matter.

Turning now to Frege, people seem to be quite certain nowadays that Frege's view of the sense of a proper name is exactly the same as that of Strawson and Searle that, according to him, the sense of a proper name can be given in terms of a *disjunction* of properties.

References

1. Marcus, Ruth Barcan: 1961, "Modalities in Intentional Language; *Syntheses*, 13 pp. 309-310.
2. Ibid : p. 309.
1. Ibid pp. 308-309.
2. Ibid pp. 311
3. Salmon, N 1981 *Reference and Essence*, Princeton, NJ Princeton University Press(1982, pp. 4),
4. Kripke, Saul ;*Naming and Necessity* Cambridge, Mass: Havard University Press. P.48.
6. Kripke, Saul., Semantical considerations on modal logic, *Acta Philosophica Fennica*, 16,83-94 p.66.
8. Ibid p.21 n 21.
9. Quine. W.,1943 Notes on existence and Necessity, *Journal on Philosophy*. 40, 113-27.
10. Evans, Gareth 1982: *The Varieties of Reference*. Oxford:Clarendon Press, Chapter 6 & 7.
11. Strawson, P.F., 1959: *Individuals*. London: Methuen, pp.151.
12. Ibid 1980, p. 78.
13. Evans, G. 1973, "The Causal Theory of Name". *Proceedings of the Aristotelian Society*. Suppl. Vol. 47 : 187-208.
14. Salmon N.U. 1982, *Reference and Essence*, Oxford, Basil Blackwell, pp. 26-27
15. Linsky, L. 1977 *Names and Descriptions*. Chicago: University of Chicago Press, p.109.
16. David Kaplan, "Dthat" in *The Philosophy of Language*, ed. A.P. Martinich, pp. 316-329.
17. Ibid., p321.
18. Ibid., p.324.

19. Devitt, M. (1981) *Designation*, New York: Columbia University Press.
20. Devitt, M., (1981) *Designation* , New York: Columbia University Press, p.150.
21. Ibid., sec 5.
22. Devitt, M. and Sterelny, K. (1987) *Language and Reality: An Introduction to the Philosophy of Language*, Cambridge: MIT Press
23. Sen ,P. K. "Some Recent Researches on Names"

Conclusion

CHAPTER V

CONCLUSION

Proper Names: Some Considerations

We intend to divide this chapter into different sections. In the first section we shall primarily discuss John Stuart Mill's theory of proper names, in the second section we hope to discuss the theory of Bertrand Russell, and in the third section we propose to discuss that of Gottlob Frege's view about proper names. Throughout these sections we shall try to bring out the interconnection between the three theories.

Section I

In talking about proper names one naturally begins with the theory of John Stuart Mill for it is one of the earliest, and, perhaps, the best-known theory on the subject.

A proper name like 'Paul' or 'Caesar' is, according to Mill, a singular name which is devoid of all connotation. But, what is a *name*? What is it to be *singular*? And what is it to be devoid of all *connotation*?

Though the use of the word 'name' is somewhat extraordinary in Mill, as well as in much of traditional logic, it is not difficult to see what he means by it. To begin with, a name is a word or a group of words. But, of course, the more important thing is that not all words, or groups of words, can be regarded as names (even if they are significant). 'Paul', 'the first Emperor of Rome', 'man', and 'whiteness' are all names; but not so 'of', 'to', 'John's' or 'heavy'. The reason why the words of the second group are excluded from the class of names is not far to seek. Mill is

quite clear on this point: 'These words do not express things of which anything can be affirmed or denied'.¹ We can say significantly that Paul died young or that the first Emperor of Rome was a great warrior, but *not*, for example, that of is a relation or that heavy is difficult to carry. So what transpires is that, according to Mill, a word, or a collection of words, would be a name *only if* it could be used in the position of the subject of some assertion. (It seems possible to add also that a name, in Mill's view, is what many contemporary philosophers have called 'a referring expression'.)

Now, if this is what Mill calls 'name', what does he mean by a singular name? 'An individual or singular name', he explains, 'is a name which is only capable of being truly affirmed, in the same sense, of one thing'.² So 'John' and 'the king who succeeded William the Conqueror', as well as 'the king', under suitable circumstances, are individual or singular names. 'Man', on the other hand, is not an individual name. It is a *general* name for it can be truly affirmed of an indefinite number of individuals, and in the same sense.

There is something in this account of singular names which would appear awkward to a student of contemporary semantics. It is the use made of the concept of *being truly affirmed of* by Mill. A *name* is not said to be *true of* (i.e., something which can be truly affirmed of) the thing of which it is a name. We shall say nowadays that to be a name of is not to be true of, and that what can be true of (or false of) something is *not* a name but a *predicate*, the distinction between names and predicates being very widely accepted in contemporary semantics. Some expressions, however, may seem to be *both* names *and* predicates. Thus, one may say that 'man' in the statement 'All men are featherless bipeds' is a name of all the individuals of which 'featherless bipeds' is affirmed' (for it is used to refer to all of them), but 'man' in the

statement 'Socrates is a man' is precisely what is affirmed of Socrates. But it seems quite clear that the character of being a name cannot be combined with that of being a predicate, even in this way, in the case of many names. Typical examples of such names are, of course, 'John', 'Brown', and 'Smith'. Mill fails to see this because he takes statements like 'This is Brown', which are made, say, to introduce a person, to be instances of predication of a name.

But we can say that the 'is' in such a statement is not an 'is' of predication, it is an 'is' of *identity*; and if it is argued that there cannot be any statement without predication, i.e., without some predicate or other, then we can always reply that the predicate which is involved in 'This is (i.e., is identical with) Brown', and in all such statements, is the two place predicate '.... is identical with ...', and that the predicate is neither the name nor the demonstrative. It is also doubtful whether such expressions as 'the king who succeeded William the Conqueror' can be said to be true of or false of anything. For what is true or false of one thing must, at least in principle, be capable of being true of others (the well-known dictum being that the predicate is always *universal*), but the expression 'the king who succeeded William the Conqueror' can be 'true' of at *most* one individual.

Let us say that a singular name, according to him, is a name of a single thing or person. We can also recall that a name, in Mill's opinion, is that which can be used in the position of subject in a statement, and add further that the function of the subject in a statement is that of referring to obtain the result that a singular name, according to Mill, is that which can be used for the purpose of referring to a single thing or person.

Now let us see what Mill means by a non-connotative name. 'A

non-connotative term (name),' Mill explains, 'is one which signifies a subject only, or an attribute only.' 'A connotative term,' he adds, 'is one which denotes a subject, and implies an attribute.'³

The crucial idea here is indeed that of *connotation*. The connotation of a name consists of the properties which it implies. But what is the meaning of 'implies' ?

The meaning of 'implies' is fairly obvious in the case of a term in predicate position. So we can say that the term 'triangle' implies the property of being a three-sided figure in the sense that 'x is a triangle' implies 'x is a three-sided figure' (or, if we like to put it that way, 'x is possessed of the property of being a three-sided figure'). That is, about a term in predicate position we can say that it implies a number of properties in the sense that when we use it with regard to a thing we say that the thing is possessed of these properties. But it is difficult to see what 'implies' means in the case of a term in subject position. Since a term in subject position is *not* used for the purpose of predication, a term in this position *cannot* be said to imply a number of properties in the sense that when we use it with regard to a thing we say that the thing is possessed of these properties. In fact, as it has been pointed out by many, a term in subject position is not used to say anything about the thing for which it stands (or denotes); it is used to refer to the thing, and this is a *preparation* for saying something rather than actually saying anything about it. The difficulty is not so great in the case of terms in subject position which can be used in predicate position as well; e.g., the term 'star' in 'All stars are luminous bodies'. We can say that such a term implies a number of properties in the sense that they *could* be used to say of a thing that it was possessed of those properties. But the difficulty is very great indeed in the case of terms which cannot be used in predicate position at all, i.e., singular terms which apply to one

individual only. An example of this kind considered earlier is 'the king who succeeded William the Conqueror'.

This difficulty with terms in subject position has prompted some philosophers, notably Bertrand Russell, to banish from subject position all connotative terms, i.e., terms which can be said to imply properties. We can however postpone a consideration of this move, and suggest, for the present, an alternative solution to this difficulty. Let us say that a term *applies* to a thing or a number of things *either* if it can be truly predicated of them *or* if it can be correctly used to refer to them. Now we can say that a (connotative) term implies some properties in the sense that from the fact that the term applies to a thing or a number of things we can infer that they are possessed of these properties.

It is clearer now what Mill means by a non-connotative term. A non-connotative term is such that from the fact that it (correctly) applies to a thing or things we cannot infer that the thing or things to which it applies are possessed of some properties. If we consider now what Mill calls 'singular term', we can see what he means by a singular non-connotative term. A singular non-connotative term, according to him, is a term which can be used to refer to some single thing, but from the fact that it can be (correctly) used to refer to a certain thing we cannot infer that the thing is possessed of any properties.

But why does Mill conclude that a proper name like 'Caesar' is non-connotative? His argument is very simple. From the fact that a proper name like 'Caesar' (correctly) applies to some individual we cannot infer that the individual is possessed of any properties. From the fact that the term 'man' (correctly) applies to an individual we can infer that he is possessed of the property of being an animal; from the fact that the term 'the highest mountain on Earth' (correctly) applies to an

individual we can infer that it is possessed of the property of being a mountain; but from the fact that the term 'Caesar' (correctly) applies to an individual we cannot infer that the individual is possessed of some properties. And the reason why we can make this inference in one case, but not in another, is as follows.

The term 'man' *correctly* applies to an individual, (as a predicate) *because* the individual is possessed of some properties, and, consequently, if the term is applied on any occasion to an individual which is not possessed of these properties, then the application of that term on that occasion would be *incorrect*. Similarly, the term 'the highest mountain on Earth' *correctly* applies to an individual (as a referring expression) *because* the individual is possessed of some properties, and, consequently, if the term is applied on any occasion to an individual which is not possessed of these properties, then the application of that term on that occasion would be *incorrect*. But we cannot say, Mill suggests, that the term 'Caesar' correctly applies to an individual *because* the individual is possessed of some properties, and, consequently, we cannot say also that if the term is applied on any occasion to an individual which is not possessed of these properties, then the application of the term on that occasion would be incorrect. In brief, there is *no* set of properties' which can be said to *determine* the *correct* use of a proper name.

So a proper name, according to Mill, is a singular name which is devoid of connotation. But there is a little inaccuracy in taking this to be the very definition of a proper name for Mill. For it seems that Mill recognizes *another* class of names which are both singular and non-connotative. These are singular abstract names like 'milkwhiteness', 'tangibleness', etc. Even though they are singular and non-connotative, they are not classified as proper names by Mill. So it seems that a more

accurate characterization of proper names, in Mill's theory, would be that they are singular, non-connotative and *concrete* names, i.e., names of *things* rather than their attributes. It must be pointed out, however, that it is not at all clear why abstract singular names are excluded by Mill from the class of proper names.) An important consequence which seems to follow from this restriction of the class of proper names to names which are concrete is that they are names of *particulars*. For what Mill calls a 'thing' he also calls an 'individual', and he apparently treats these two words as synonymous. But one cannot be certain, for Mill's view regarding abstract terms, like those of many others, are very little developed.

Section-II

The best-known theory of proper names, besides the theories of Mill and Russell, is that of Frege. His theory, however, is opposed to the theories of Mill and Russell on a number of important points. A proper name, for Frege, is a name of an object. It is fairly obvious that by 'a name of an object' he means 'a name of a *single* object'. So, like Mill and Russell, he takes a proper name to be a singular name, and thus accepts with them the thesis (a). But what does he mean by 'object'?

Frege does not ever explain in explicit terms what he means by 'object'. But he does provide a clue to understanding what he means by it. An object is that which is not a *concept*. And a concept is that which corresponds to the predicate in a statement, or, in Frege's " own terminology, that which constitutes the *reference* of the predicate. Thus, in the statement 'Bucephalus is a horse', that which corresponds to the one-place predicate 'is a horse' is a concept (in plain words, the concept of being a horse), and that which corresponds to the expression 'Bucephalus' is an object. Now, it is reasonable to suppose that Frege

would maintain, in accordance with the age-old tradition in philosophy that a concept is universal; and if he does maintain it then it seems equally reasonable to suppose that he would maintain that an object is a particular. But there is one thing which appears to go, against this supposition. A concept, Frege says, can be 'converted' into an object.⁴ In the statement, 'The concept *horse* is easily formed' the concept *horse* which takes the subject position does *not* occur as a *concept* but it occurs as an object. There is no doubt that the concept converted into an object is not the same as the concept itself, but this idea of conversion is obscure, and it is not clear whether it necessarily involves a transformation of a universal into a particular. If it does, then all objects are particulars according to Frege, but, if it does not, then all objects need not be particulars.

A name may be singular without being a name of a particular. It will be possible only if we allow that universals can be bearers of names. In fact, this possibility was envisaged by Mill when he recognised a class of names which are singular *as well as* abstract. Further, if the singular abstract names are not called 'proper names' by Mill, that seems to be due to what is no more than an arbitrary decision; and if Russell defines a proper name as a name of a particular then he does so only in his later *The Philosophy of Logical Atomism*, and he allows the possibility of there being *proper names of universals* in his earlier *The Problems of Philosophy* where he maintains that universals are one of the kinds of entities with which we can be *acquainted*.

So far as the view that a proper name can occur only as the subject in a statement, there is complete agreement between Russell and Frege, and disagreement between both of them and Mill. Frege believes, as Russell does, that the subject and predicate are strictly irreversible, that a proper name which can figure as subject can never

figure as predicate and what can figure as predicate can never occur as subject.

The difference between Mill and Russell on the one hand and Frege on the other comes out sharply in connection with the view that a proper name is devoid of all descriptive content. For Frege maintains that a proper name has both a *sense* and a reference, and what he means by 'sense' comes so close to what is called 'connotation' by Mill, and to what is called 'descriptive meaning' by Russell, that we can take all these terms to stand, at least in the present context, for the same idea.

The sense of a proper name is the *mode of presentation* of the object of which it is a name (the object which constitutes, in Frege's language, the *reference* of the name). The mode of presentation is the aspect or aspects under which the object is presented to us when it is presented to us *as the reference of the name*. This aspect of the object presumably consists in a set of properties which determines the object for us, since the sense of a name, Frege says, is the *concept* of the object which the name is a name of, and concepts have been explicitly equated with properties by Frege.

But how does Frege arrive at the conclusion that proper names have sense or connotation? This he does, to an important extent, by stretching the use of the term 'proper name' beyond its ordinary limits. Thus 'the morning star' and 'the celestial body most distant from the Earth' are also called by him 'proper names'. Frege himself was aware that he was *stipulating* a new use of the term 'proper name'. So about these expressions he says, '*For brevity, let every such designation be called a proper name*'⁵. But if so, there is no *real* difference between Frege and Mill so far as *these* expressions, called 'definite descriptions'

by Russell, are concerned. For that these expressions have sense (or connotation) is part of Mill's own theory. The only difference between them would be this that, while one of them is (no doubt misleadingly) liberal in his use of the term 'proper name', the other is not. The real difference between the two philosophers lies over the nature of the expressions which are called 'proper names' by both, i.e., the ordinary proper names like 'John', 'Brown', and 'Odysseus'. But the difference between Russell and Frege, and, for that matter, between Russell and Mill, on the nature of the expressions which Russell calls 'definite descriptions' is however more radical. According to both Frege and Mill the expressions 'the morning star' and 'the celestial body most distant from the Earth' are *names*, at least in a legitimately extended sense, because both of them can be used to mention, or to refer to, an object, and, as such, can be used in the subject position. But according to Russell they cannot be so used. Being definite descriptions, these expressions cannot be used referringly in the position of the subject in a statement and, therefore, cannot be called 'names' even in a stretched sense of the term.

Before coming to the question why Frege holds that all proper names have sense, let us pause for a while and consider why Mill and Frege feels so assured that definite descriptions can have a referring use and that they can be used in the subject position. The reason is, to put it bluntly, they were not confused on a point on which Russell was confused. Russell confused the descriptive *function* of an expression with its descriptive *content* or *meaning*, and then argued as follows: because a term in subject position has a referring function, and because having a referring function is incompatible with having a descriptive function, and because expressions like 'the morning star' and 'the author of *Waverley*' have descriptive *content* or *meaning*, therefore they cannot have any referring *function*, and consequently they cannot be used in

the subject position either. But Frege and Mill saw clearly that having a descriptive content is not the same as having a descriptive function, and so from the fact that having a descriptive function is incompatible with having a referring function it does *not* follow that having a *descriptive content* is incompatible with having a *referring function*.

Let us now consider why Frege holds that all proper names have sense.

It is clear why the proper names, which are also definite descriptions, are held to have sense by Frege. If we consider the following identity statements:

- (1) The morning star = the morning star,
and
- (2) The morning star = the evening star,

we find that the former is analytic and *a priori* (and, consequently, uninformative) but the latter is synthetic and empirical (and, consequently, informative). The only way in which we can possibly explain this difference between the two identity statements, according to Frege, is as follows: the expressions 'the morning star' and 'the evening star' not only refer to a particular planet but also have their respective senses. The two expressions have the same reference obviously, for they refer to the same planet, the Venus— but they do not have the same sense, because the mode of presentation corresponding to one of them is different from the mode of presentation corresponding to the other. So the difference between the two statements lies in that, while the terms of identity in the first statement have not only the same reference but also the same sense, the terms of identity in the second statement have only the same reference but different senses.

This is as good an argument as one could expect to have on such a matter. But why does Frege conclude that not only the proper names in his extended sense of the term but also the proper names in the ordinary sense have sense? The usual practice is to say that it is possible to construct with the help of ordinary proper names a pair of identity statements which would be related to one another in exactly the same way as (1) and (2) are related to one another. Thus the following pair is constructed by John R. Searle⁶:

(3) Tully = Tully,

and

(4) Tully = Cicero.

However, this example is *not* Frege's own, and, in point of fact, besides giving statement schemata like 'a=b' and 'a=a', Frege gives us only those identity statements which are constructed out of definite descriptions. This by itself is not an important objection to constructing identity statements like (3) and (4) to give completion to Frege's argument. Indeed, it is quite plausible to suppose that Frege did have something like this in his mind, for it does seem that he took 'The morning star = the evening star' as *typical* of all identity statements involving proper names. But *what* would be the sense of 'Tully', or of 'Cicero'? Frege never came to grip with *this* question, and so it is not possible to find an answer to this question from Frege himself; neither is it easy to imagine what his answer would be. It is not difficult to see what the sense of the expression 'the morning star' would be according to Frege. The sense of an expression, he tells us, is the concept of the object in so far as the object is designated by the name. So the sense of the expression 'the morning star' would presumably be *the concept of being the star (planet?) which appears in the morning*. But what is the sense of 'Tully'? What is the concept under or through which the person is presented to us when he is presented as Tully? It is really very difficult

to find satisfactory answers to these questions. It seems that in so far as a person is presented as Tully, he is not presented under or *through* any concept at all, he is presented, in a very important sense, *directly* to us. It is noteworthy that this idea of directness plays an important role in the development of Mill's and Russell's theory.

Alonzo Church, who is considered to be the most faithful and competent follower of Frege, was conscious of this difficulty. But his argument against Mill and Russell is this: 'We do not follow Mill in admitting names which have denotation without connotation, but rather hold that a name must always point to its denotation *in some way*, i.e., through some sense or connotation, though the sense may reduce in special cases just to the denotation's being called so and so (e.g., in the case of personal names), or to its being what appears here and now (as some times in the case of the demonstrative "this")',⁷. So it is clear that the *only* sense which the personal name 'Tully' can be said to have, consists in (the concept of) being called by the name 'Tully', and the *only* sense which 'Cicero' can be said to have consists in (the concept of) being called by the name 'Cicero'. Once again, one need not object to this interpretation of Frege's doctrine; this might well have been in his mind when he maintained that all names, without exception, have some sense. But this interpretation would raise, it seems, a serious question of *consistency* about Frege's theory. The question arises in the following way.

The sense of the expression 'the morning star' consists in the concept of being the star which appears in the morning, and, consequently, it admits of the expansion 'the star (planet) which appears in the morning'. The sense of the expression 'the author of *Waverley*' consists in the concept of being the person who wrote (authored) *Waverley*, and, consequently, it admits of the expansion 'the person who

wrote (authored) *Waverley*'. If the sense of the name 'Tully' similarly consists in the concept of being the person called by the name 'Tully' then it should admit of the expansion 'the person called by the name "Tully"'; and, for the same reason, the name 'Cicero' should admit of the expansion 'the person called by the name "Cicero"'. But if these two expansions are permitted then we should also permit the following expansion of the identity statement (4) 'Tully = Cicero'.

(5) The person called 'Tully'= the person called 'Cicero'.

Now, this expansion may in itself be all right, and (4) may mean the same as (5). But such an expansion of an identity statement has definitely been rejected by Frege in his 'On Sense and Reference', though, interestingly enough, it was upheld by him in his earlier *Begriffsschrift*. It has been rejected by him on the ground that the truth of (5) depends upon some linguistic conventions which are in the last analysis arbitrary, but the truth of (4) depends upon some facts of the world.

So it is difficult to decide what constitutes the sense of ordinary proper names for Frege, although there is hardly any doubt that he maintained that they too had sense. Also it is difficult to decide how he himself would try to prove that they did have it.

A New Development

In the last fifty years or so discussion of reference has been focused on the relative merits of three alternative models. First, as we have seen, there is the *description* theory according to which x refers to y when x is associated with a description of y . This is the Frege-Russell view, championed these days by not many people. Second, there is the

causal theory according to which *x* refers to *y* when there exists a certain sort of causal chain linking *x* with *y*. This sort of view has been promoted in a variety of forms by Kripke, Evans, early Field, Devitt, and Loar. Perhaps it deserves to be called the mainstream. And third, there is a relatively recent arrival on the scene, the *deflationary* theory (also known as 'minimalism' or 'disquotationalism') according to which *x* referring to *y* is roughly a matter of *x* being the *singular term "n"* (in quotes) and *y* being the *thing 11* (out of quotes).

Of any candidate account of reference we should ask two distinct questions. Is it correct? And is it relevant---is it really an account of reference? It is important to keep this distinction in mind when assessing the description and causal theories: for in both of these cases it seems to me that, whatever may be the answer to the question of correctness, the answer to the question of relevance is pretty clearly No.

Thus the description theory, as we have seen, in its pure form says that names are abbreviated definite descriptions. This claim may or may not be right; in light of Kripke's powerful objections, it probably is not. Right or wrong, however, it does not qualify as a theory of reference; for it does not so much as attempt to say what it is for a singular term to refer to an object, or even to specify which singular terms refer to which objects. Perhaps, in so far as it asserts the synonymy of each name with a definite description, we can draw the conclusion that the name refers to whatever the associated description refers to. But we are told nothing at all about the character of the relation between each of these two expressions and their common referent, and we are not even told what that referent is; so there is no theory of reference here. Nor is this problem remedied in more sophisticated versions of the description theory: e.g. the cluster theory, whereby a name is associated with a set of descriptions rather than a single one;

the metalinguistic theory, whereby the relevant description has the form 'the thing called "n" '; or the causal description theory whereby the relevant description has the form 'the origin of such-and-such causal chain leading to our use of "n" '. These varieties of description theory retain the fundamental defect of the pure version. They identify the referential properties of one type of singular term (names) with those of another type (descriptions), but say nothing about what we have in mind in supposing that a given singular term refers to (or is *about*, or *of*) a given object.

Similarly, what most people regard as the causal theory misses the main point. When we imagine the sort of causal chain Kripke gestured towards, we think of the process by which the use and reference of a name spreads in a linguistic community: the person I refer to by the name "Moses" is whoever was referred to by those who introduced me to the name, and the person they were referring to is whoever *their* teachers were talking about, and so on. Thus we have a causal chain whereby some people using a name cause others to use it, which causes others to use it, and so on. And Kripke's plausible thesis is that reference is preserved. It would be wrong, however, to think that this provides a causal theory of reference---even the crude outline of one. For in light of the subsequent anti-individualist work of Putnam and Burge we can see that what an individual means by *any* of his or her words---whether they be names, predicates, or even logical constants---is something inherited from members of the linguistic community, and not determined solely by what is going on in the speaker's mind. Therefore one should distinguish between the facts in virtue of which a word has the meaning it does in a given language, and the facts in virtue of which a given member of the linguistic community understands the word in that way. But then it becomes clear that Kripke's remarks about the inheritance of reference pertain to the second issue, and that they

have nothing specifically to do with singular terms. And as for the first issue---the issue of the facts that give a name its meaning and reference in the language---we haven't been given even so much as a first approximation of a causal theory. Indeed Kripke himself leaves it open that a name may enter a language by means of a description.

So the trouble with the description and causal theories is not so much that they are wrong, but that they are not what we are looking for; they are not really theories of reference. Properly understood, one of them gives a theory of the meanings of names, the other a theory of sociolinguistic deference; but neither makes any attempt to tell us about our conception of *x* referring to *y*.

In order to rectify this situation, an uncontroversial starting-point is to acknowledge that "Aristotle" refers to Aristotle, "*the capital of Sicily*" refers to the capital of Sicily, and so on. Anyone who has the concept of reference is able to recognize such facts. The question we must now address is whether these trivialities are not merely the start of the story, but the whole story. Does our conception of reference go beyond such beliefs, and does the nature of reference involve more than those trivial facts? Is there any reason to expect a theory which goes deeper than disquotation---a theory that provides some sort of reductive analysis of the reference relation, specifying what reference is?

The deflationist answer is No. Let us elaborate this position by sketching four interrelated aspects of it:

- (1) an account of the meaning of "refers";
- (2) an account of the utility of our concept of reference;
- (3) an account of the underlying nature of reference---or rather, an account of how we know that reference has *no*

- underlying nature;
- (4) an account of the meanings of names.

The Meaning of "Refers"

The rough idea is that our meaning what we do by the word "refers" consists in our disposition to accept sentences such as

Tokens of *London* refer to London,

Tokens of *the highest mountain* refer to the highest mountain,

and so on. Since an *ambiguous* singular term, "*n*", when used as in these examples to designate a referent, must be understood in just one of its senses, it will not (in any sense of "*n*") be true to say that *every* token of "*n*" (individuated phonologically) refers to *n*. This is why the expression-types deployed in disquotational reference specifications are articulated using *star* quotation marks---indicating that they are individuated, not just phonologically, but also on the basis of meaning.

Thus our meaning what we do by "refers" consists in our inclination to accept instances of the disquotational schema

Tokens of **n** refer to *n*.

where what are substituted for the *two* occurrences of "*n*" are understood in the same way. But this won't do as it stands. In the first place, not all singular terms refer. It is false that *Atlantis* and *the largest prime number* refer to Atlantis and the largest prime number, because there are no such things to be referred to. So a more accurate rendering of what we accept would be

Tokens of **n** refer, if at all, to *n*

or, more formally,

$(x)(\text{Tokens of } *n* \text{ refer to } x \text{ iff } n = x).$

In the second place, even this improved schema cannot account for our attribution of reference to terms in foreign languages. But this deficiency can be dealt with by invoking a further principle, namely

v is the correct translation of $w \rightarrow (x)(w \text{ refers to } x \text{ iff } v \text{ refers to } x)$

which, combined with the home-language disquotation schema. Gives us **n** is the correct translation of $w \rightarrow (x)(w \text{ refers to } x \text{ iff } x = n).$

There is a further problem, however, which derives from context-sensitivity: *for example*, someone else's use of the word "me" does not refer to me. In order to handle this sort of phenomenon, we can invoke the concept of an *interpretation* mapping. *Int*, which, when applied to an expression token first translates it (if necessary) into the home language, and then adjusts for the difference in context between speaker and interpreter. Thus, if w is a token of "me" then $\text{Int}(w) = *e*$, where e = the speaker: if w is a token of "now" then $\text{Int}(w) = *e*$, where e = the time of utterance, etc. The schema constituting our concept of reference then becomes

$[\text{Int}(w) = *n*] \rightarrow (x)(w \text{ refers to } x \text{ iff } x = n).$

Finally, one might suppose that, just as the concept of 'expressing a truth' (which applies to utterances) derives from the more basic concept, truth (which applies to propositions), so the concept, reference (which applies to singular terms), is derived from a more basic concept of reference (let us call it "reference*") which applies to the *de dicto* propositional constituents expressed by singular terms. And in that case

the fundamental principles will be: (1) an *equivalence schema*

$$(x)((n) \text{ refers}^* \text{ to } x \text{ iff } n = x)$$

(where (n) is the propositional constituent expressed using the term " n "); and (2) a definition of "refers" in terms of "refers*"

$$w \text{ refers to } x \text{ iff } (\exists k)(w \text{ expresses } k \ \& \ k \text{ refers}^* \text{ to } x).$$

The deflationary thesis is that our meaning what we do by "refers" is constituted by our basing its overall use on either this pair of principles or the final disquotational schema. Thus the concept of reference (for terms) may be explicitly defined in terms of reference* (for propositional constituents); but reference* is not grasped by our accepting anything of the form, 'x refers to y iff x bears r to y'; so it is not explicitly definable.

The Utility of our Concept of Reference

The second aspect of the deflationary perspective is a story about the function and utility of the concept of reference, together with a demonstration that the theory we have just sketched is capable of explaining that function and utility. Here a little caution is in order. For in ordinary language the term most often employed in connection with the above reference concepts is "about", rather than "refers". We tend to speak of *people* as referring to things, and of their doing so in virtue of their words or thoughts being *about* those things. Consequently, in looking for the utility of the above characterized reference concepts it would be a mistake to focus on our ordinary use of the word "refers". The real issue is why we should need the notion of a certain thought being *about* (or *of*) a certain thing. Why, in other words, is it valuable for there to be a practice of characterizing the contents of thoughts and

statements *not* by alluding to how they are articulated by their subjects, but rather by alluding to the objects they are about? To put it in jargon terms. what is the point of *de re*, as opposed to *de dicto*, attributions of content?

The answer, that some suggest is that this practice enables the acquisition of useful beliefs from other people. To be more specific, when a speaker expresses a discovery about his environment by means of some utterance *u*, the belief state of other people---to whom that discovery is reported---need not be the one those people would express with the same utterance, *u*, or even with a translation of it. but rather one that is adjusted to take account of the difference in knowledge and/or context between the speaker and those who are informed of what he said. In such a case they believe 'the same thing'-but only in the *de re* sense. For example. someone who comes out with 'Those are poisonous' may be reported as having said that the mushrooms in such-and-such place are poisonous; someone who comes out with "Hesperus is red" may usefully be reported as having said that the evening star is red, etc.

Putting it schematically consider, first, a speaker S who asserts "*a* is *f*"; second, an ultimate recipient of information who does not understand the singular term "*a*" but who does understand "*b*"; and third, a reporter who knows all this and also knows that $a = b$. What can this reporter usefully communicate to the recipient about what S believes? Intuitively, what he wants to say is

S believes *that a is f*, and $a = b$

--- but minus any information about S's singular term "*a*", since it does not mean anything to the recipient. But the proposition *that a is f* is

identical to the result of applying the predicative propositional constituent expressed by " $f()$ "-namely $(f)[]$ -to the singular propositional constituent expressed by " a "-namely (a) . Thus, what the reporter would like to say (but minus any confusing information about S's singular term) is

S believes $(f)(a)$, and $a = b$.

where the term " (a) " is in a referential, transparent position, open to objectual quantification. But now suppose the reporter accepts the equivalence schema

$(x)(() \text{ refers* to } x \leftrightarrow n = x)$,

and, in particular.

$(a) \text{ refers* to } b \leftrightarrow a = b$.

In that case, what he more or less wants to say is equivalent to

S believes $(f) [(a)]$, and (a) refers* to b .

And he is now in a position to leave out the useless and potentially confusing information about S's singular term by existentially generalizing into the position of " (a) ", arriving at

$(\exists x) (S \text{ believes } (f)(x), \text{ and } x \text{ refers* to } b)$;

or, as he would phrase it colloquially,

S believes, about b , that it is f .

In this way, the notion of reference, simply in so far as it satisfies the equivalence schema, enables us to articulate *de re* attributions of content. Thus we have accounts of the concept of reference and of the utility of this concept that square well with one another, and thereby lend one another support. For it counts in favour of

our deflationary account of the concept that we see how a concept conforming to that account would be worth having. And it counts in favour of our theory about the function of the concept that an otherwise plausible account of the nature of the concept turns out to be necessary and sufficient for explaining how it is able to perform that function.

The Underlying Nature of Reference

Let us now turn to the third component of the deflationary view of reference: namely, that the reference relation has no underlying nature. Not only is the meaning of the term not given by some explicit definition of the form

"x refers to y" means "x bears non-semantic relation *r* to y".

but, in addition, we should expect no substantive discovery of the form. The relation of *x* referring to *y* consists (roughly speaking) in *x* bearing relation *r* to *y*.

This is certainly not to deny that there really is such a relation as reference. For one might well employ a liberal notion of property (and of relation) according to which every logically normal predicate expresses a property (or a relation). However, the question of whether or not this relation of reference is constituted by some underlying causal relation---or by some other non-semantic relation---is an entirely separate issue. And part of the deflationary position, as we see it, is that the reference relation is very unlikely to have any such underlying nature. For it is plausible that the explanatory basis for all facts regarding reference is a theory whose axioms are instances of the disquotational or equivalence schemata. This is because, on the one hand, such axioms appear to suffice to explain all other facts about reference; and, on the other hand, it is not likely that these facts will themselves be explained in terms of something more fundamental. After all we are not here dealing with the

sort of case, familiar in science, where a general characteristic of some type of system might well be expected to be explained causally in terms of the properties of the parts of such systems and the way those parts are combined. Thus the normal reason for anticipating an explanation is absent. Moreover, it is hard to see how the conditions for a deeper account of the disquotational or equivalence facts could possibly be satisfied. For a decent explanation would have to involve some unification, some gain in simplicity. But the disquotational and equivalence axioms are already very simple. Granted, there is one glaring respect in which those theories are complex: they each have infinitely many axioms. But we can see that no candidate explanatory account of their axioms could possibly make do with fewer than infinitely many axioms. For there are infinitely many possible names (and even infinitely many primitive propositional constituents that a name might express); and an adequate theory would have to say something different about each one of them. Thus the infinite aspect of the disquotation and equivalence theories cannot be improved on. Therefore there is not going to be a body of principles, from which those theories can be derived, and which is sufficiently simple to qualify as an explanation. Therefore we can conclude that the reference relations are not constituted by some more fundamental nonsemantic relation.

The Meanings of Names

Finally, let us switch focus from the character of the reference relation to the meanings of names. The first thing to be emphasized here is that the two issues are distinct. This needs emphasizing because proponents of the description theory and proponents of the causal theory tend to obscure the distinction. The description theorist does so by supposing that he gives an account of reference, when what he really offers is an account of the meanings of names. And the causal theorist

does so by imagining that his account entails that names do not have meaning. But from the deflationary perspective on reference the two issues are not so intimately related. From our perspective, having fully explained the meaning of "refers", it still remains to deal with the meanings of names.

To that end we should start by reviewing the reasons for supposing that names do have meaning. These include various sorts of consideration. First, there is intuitive, ordinary language support. For we speak of someone's *understanding*, or failing to understand, a name; and we speak of *translating* names from one language to another. Second, there is theoretical support. For the general role of a meaning property—namely, to explain the overall use of the words that possess it—will be no less required in the case of names than in the case of other types of word. Moreover, we have Frege's argument that the difference in 'cognitive value' between "*a* is *f*" and "*b* is *f*", which exists even when the names are co-referential, is best explained by attributing different meanings to them. And third, there is rhetorical support, which derives from seeing what is wrong with reasoning that has led people to infer that names *do not* have meaning. Specifically, no such conclusion follows from the fact that names are not synonymous with definite descriptions: they might well be unanalysable primitives. Nor, in that case, does it follow from the fact that they are rigid designators.

So let us take it that names *do* have meanings. The question then becomes: where do their meanings come from? Or more precisely: in virtue of which underlying non-semantic property of a name does it possess its particular meaning? In what does its meaning property consist?

Let us remember the difference between this and the question:

what is the meaning of a name? The latter question normally calls for an answer of the form

The name "*n*" has the same meaning as "so-and so",
or in other words

The name "*n*" means SO-AND-SO.

which presupposes that the name is *not* a primitive. Our question, on the other hand, leaves this open. It may be, if the name "*n*" is indeed non-primitive, that the answer takes the form

"*n*"'s meaning what it does consists in the fact that it is used as an abbreviation for "so-and-so",

or

"*n*"'s meaning what it does consists in the fact that the basic feature of its use is the holding true of "*n* = the so-and-so".

But perhaps "*n*" is primitive. In which case, it may be that

"*n*"'s meaning what it does consists in the fact that the basic feature of its use is the holding *true* of "*#n*",

where "*#n*" is some collection of sentences formulated with the name "*n*"; or

"*n*" 's meaning what it does consists in the fact that the basic feature of its use is the holding *true* of "This is *n*" in circumstances C. And there could very well be other possibilities.

This leads to the question: given a specific name, how are we to

decide what sort of property constitutes its meaning? What are the adequacy conditions of a theory of the form:

The name "*n*" means what it does in virtue of possessing property, $u(x)$?

To begin, it is worth noting some constraints one might be wrongly tempted to impose---constraints which would make the problem extremely hard, but which are in fact illegitimate.

First, it need not be assumed that all names have the very same kind of meaning-constituting property. For look at the great variety of kinds of name: of countries ("Italy"), numbers ("one"), historical figures ("Aristotle"), theoretical entities ("spacetime"), fictional characters ("Superman"), works of art ("La Boheme"), theories ("deflationism"), mistaken postulates ("Vulcan"), universals ("redness"), supernatural beings ("Zeus"), etc. These names have such different functions in our language that it would not be at all surprising for them to have very different types of meaning-constituting property.

Second, the meaning of a name determines its referent. Therefore, a name's meaning-constituting property also determines its referent. But this implies merely that two names with the same meaning-constituting property must have the same referent. It does not imply that the referent of a name is *explained* by its meaning-constituting property independently of what particular names possess the property. In other words, it does not imply that from premises specifying

- (1) the meaning-constituting property of a given name
- and
- (2) the character of reference

one can deduce which object, if any, is the referent of the name. This form of 'strong determination' of referent by meaning would obtain if and only if we had an *inflationary* (e.g. causal) theory of reference of the form

x refers to y iff x bears r to y .

For in that case, given that

x means what " n " means \rightarrow x refers (if at all) to " n ",

or, in other words, given that

x means $N \rightarrow (y)(x$ refers to y iff $n = y$),

we could infer that the property constituting the antecedent, ' x means N ', would have to entail whatever is the property that constitutes the consequent, ' $(y)(x$ refers to y iff $n = y$)', and would therefore have to have the form

$s(x)$ and $(y)[x$ bears r to y iff $n = y]$.

And, given the inflationary theory of reference, any name with this meaning-constituting property would plainly refer (if at all) to the object n . Thus the referent of a name would be *explained* by its meaning-constituting property, independently of which names possess the property. However, there is no good reason to suppose that the meaning of a name must determine its referent in this strong, explanatory sense (rather than merely in the weak sense whereby 'same meaning' implies 'same referent'). Hence there is no reason to think that the meaning-constituting property of names should take the above form. These suppositions are motivated by an inflationary picture of reference. So, from our deflationary perspective they are not to be respected.

Let us turn now from these tempting but illegitimate constraints to the real basis for specifying the meaning-constituting properties of names. For any type of word, our way of using it---the utterances in which it appears---is explained by a combination of various factors including, centrally, what we mean by the word. On this basis it can be argued that the meaning-constituting property of a word is that property which, in combination with other factors, explains our overall use of the word. And from here it is a natural step to the conclusion that a word's meaning is constituted by the fact that a certain acceptance property governs its use. For example, arguably, the meaning-constituting property of the word "and" is that the fundamental feature of its use is our (conditional) disposition to accept "p and q" given "p" and "q", and vice versa for an English speaker's overall deployment of "and" is best explained on the basis of that assumption.

It seems reasonable to apply the same considerations to names. Given any name, there will exist a huge body *of* facts regarding its use; these facts will call for explanation by appeal to some *fundamental* fact about its deployment; and this fact--its possession of a certain basic acceptance property---will constitute its having the meaning it does.

There is no reason to expect that all names will have meaning-constituting properties of the very same type. For, in the first place, there is no need for a meaning-constituting property to *strongly* determine a referent; and in the second place, the various names mentioned above are used in very different ways and so we can anticipate a considerable variation in the kinds of basic acceptance property that explain these usages.

More specifically, the following hypotheses seem to be not wildly

implausible—at least as crude, first approximations:

"Vulcan"'s meaning what it does consists in the fact that the basic feature of its use is the (conditional) holding *true* of "Vulcan = the planet (*if any*) causing such-and-such perturbations in the orbit of Mercury"; "one's" meaning what it does consists in the fact that the basic feature of its use is the (conditional) holding *true* of the Peano axioms of arithmetic;

"Aristotle"'s meaning what it does consists in the fact that the basic feature of its use is the (conditional) holding *true* of "This is Aristotle" when pointing at Aristotle.

It might be objected to the last of these proposals that one can understand the word "Aristotle" perfectly well without having the disposition to say "That is Aristotle" in the presence of the right guy. In response, we can appeal to what is known variously as 'deference to experts', 'the causal transmission of reference', 'the division of linguistic labour', and 'semantic antiindividualism'-which has been characterized by Kripke, Putnam, and Burge. In light of this phenomenon, we have seen that we must distinguish between the fact in virtue of which a word has a certain meaning in the language, and the fact in virtue of which a given individual uses the word with that meaning. From the use-theoretic point of view, the former fact is to be located by focusing on so-called 'experts' in the use of the word and finding the regularity that best explains their overall deployment of it. And the latter fact will then be the fact of standing in something like a Kripkean 'causal relation' to experts who conform to that regularity.

In the case of the name of a person, the 'experts', to whom the rest of us defer, are those who are (or were) acquainted with the person,

and who are (or were) in a position to say "This is n" when n is present. That is the fact about the name's use that gives it its meaning in the language, and the rest of us inherit this meaning via the Kripkean causal chain even though we do not exhibit expert usage of the name.

References

1. Mill.J.S., *A System of Logic*,p.15.
2. Ibid., p. 17.
3. Ibid., p. 19.
4. 'On Sense and Reference', in *Philosophical Writings of Gottlob Frege-translated* and edited by Geach and Black, p. 57.
5. 'Proper Names', *Mind*, Vol. 67, 1958
6. *Introduction to Mathematical Logic*, Vol. I, p. 6.
7. Leeds, s. *Theories of Reference and Truth*, *Erkenntnis*. 13 (1978, pp. 111-129.

Bibliography

Bibliography

1. Ayer, A.J., 1946. *Language, Truth and Logic*. 2nd ed. With a new introduction: London: Victor Gollancz. First ed., 1936.
2. Ayer, A.J. ed. *Logical Positivism*, New York : The Free Press
3. Bach, Kent. 1987. *Thought and Reference*, Oxford: Clarendon Press.
4. Bach, Kent. 1992, "Paving the Road to Reference". *Philosophical Studies* 67: 295-300. Baker, C.L. 1995. *English Syntax*, 2nd ed. Cambridge, Mass.: MIT Press. First edn. 1989.
5. Bertollet, Rod. 1980. "The Semantic Significance of Donnellan's Distinction". *Philosophical Studies* 37: 281-8.
6. Bloomfield, L. 1933. *Language*, New York: Holt, Rinehart & Winston.
7. Boolos, George. 1990, *Meaning and Method: Essays in Honor of Hilary Putnam*. New York: Cambridge University Press.
8. Burge, Tyler. 'Reference and Proper Names', *Journal of Philosophy* 70 (1973): 425-439.
9. Burge, Tyler. 'Demonstrative Constructions, Reference, and Truth'. *Journal of Philosophy* 71 (1974): 205-223.
10. Canfield, John V. 1977. "Donnellan's Theory of Names". *Dialogue* 16: 104-27.
11. Carnap, Rudolf. 1932. "The Elimination of Metaphysics Through Logical Analysis of Language". In Ayer 1959: 60-81. First. Publ. in German in *Erkenntnis* 2.
12. Carnap, Rudolf. 1956, *Meaning and Necessity: A Study in Semantics and Modal Logic*, Chicago: University of Chicago Press, 2nd ed. First ed., 1947.
13. Clark, Peter, and Bob Hale, eds. 1994. *Reading Putnam*. Oxford: Blackwell. Cohen, L.J. 1981. "Can Human Irrationality

- be Experimentally Demonstrated?" *Behavioral and Brain Sciences* 4: 317-70 (includes peer commentaries and response by author).
14. Cresswell, Max. 1985. *Structured Meanings: The Semantics of Propositional Attitudes*. Cambridge, Mass.: MIT Press.
 15. Cresswell, Max. 1994. *Language in the Worlds: A Philosophical Enquiry*. Cambridge: Cambridge University Press.
 16. Currie, Gregory. 1982 *Frege, an Introduction to his Philosophy*. Totowa, NJ: Barnes and Noble.
 17. Davidson, Donald 1984. *Inquiries into Truth and Interpretation*. Oxford: Clarendon Press.
 18. Davidson, Donald and Harman, Gilbert (eds.) *The Logic of Grammar* Calif., 1975.
 19. Davidson, Donald and Harman, Gilbert (eds.) *Semantics of Natural Language*. Atlantic Highlands, N.J., 1972.
 20. Donnellan, Keith S. 1972. "Proper Names and Identifying Descriptions". In Davidson and Harman 1972: 356-79.
 21. Dummett, Michael. 1973. *Frege: Philosophy of Language*. London: Duckworth.
 22. Dummett, Michael. 1975. "What is a Theory of Meaning?" In Guttenplan 1975: 97-138.
 23. Edwards, Paul, ed. 1967. *The Encyclopedia of Philosophy*. London: Macmillan. Erwin, E., L Kleinman, and E. Zemach. 1976. "The Historical Theory of Reference". *Australasian Journal of Philosophy* 54: 50-7.
 24. Evans, Gareth. 1973. "The Causal Theory of Names". *Proceedings of the Aristotelian Society*, Suppl. Vol. 47: 187-208. Reprinted in Schwartz 1977, Martinich 1996, and Ludlow 1997.
 25. Evans, Gareth. 1982. *The Varieties of Reference*, ed. John McDowell, Oxford: Clarendon Press.

26. Evans, Gareth. 1985, *Collected Papers*. Oxford: Clarendon Press.
27. Evans, Gareth., and McDowell, John (eds) *Truth and Meaning*. Oxford, 1976.
28. Fodor, Jerry A. and Jerrold J. Katz, eds. 1964. *The Structure of Languages: Readings in the Philosophy of Language*. Englewood Cliffs, NJ: Prentice-Hall.
29. Frege, Gottlob. *The Foundations of Arithmetic*. Trans. Montgomery Furth. California, 1964.
30. Frege, Gottlob. *Philosophical Writings* Trans. Geach and Black. Oxford, 1970.
31. Geach, Peter. 1962. *Reference and Generality*. Ithaca: Cornell University Press.
32. Grice, H.P. 1957, "Meaning". *Philosophical Review* 66: 377-88. Reprinted in Grice 1989, Martinich 1996, Geirsson and Losonsky 1996.
33. Guttenplan, S., ed. 1975: *Mind and Language*. Oxford: Clarendon Press.
34. Harman, Gilbert. 1973. *Thought*. Princeton: Princeton University Press.
35. Hintikka, Jaakko. 1962. *Knowledge and Belief*. Ithaca, New York: Cornell University Press.
36. Hook, Sidney, ed. 1969. *Language and Philosophy: A Symposium*. New York: New York University Press.
37. Kaplan, David 1978a "Dthat". In P. Cole (ed.), *Syntax and Semantics 9: Pragmatics*. New York: Academic Press: 221-43. Reprinted in Yourgau 1990, Martinich 1996 and Ludlow 1997.
38. Katz, Jerrold J. ed. 1985. *The Philosophy of Linguistics*. Oxford: Oxford University Press.
39. Kripke Saul A. 1979. "Speaker's Reference and Semantic Reference". In Peter A. French, Theodore E. Uehling, Jr., and

- Howard K. Wettstein (eds.), *Contemporary Perspectives in the Philosophy of Language*, Minneapolis: University of Minnesota Press: 6-27. Reprinted in Davis 1991, and Ostertag 1998.
40. Kripke Saul A.1980. *Naming and Necessity*. Cambridge, Mass. Harvard University Press. A corrected version of an article of the same name (plus an appendix) in Davidson and Harman 1972, together with a new preface.
 41. Kripke Saul A.1982. *Wittgenstein on Rules and Private Language: An Elementary Exposition*, Cambridge, Mass.: Harvard University Press.
 42. Larson, Richard, and Gabriel Segal. 1995. *Knowledge of Meaning: An Introduction to Semantic Theory*. Cambridge, Mass.: MIT Press.
 43. Lewis, David K.1973. *Counterfactuals*. Oxford: Blackwell.
 44. Lewis, David K. 1983. *Philosophical Papers, Volume I*. Oxford: Oxford University Press.
 45. Linsky, Leonard, ed. 1952. *Semantics and the Philosophy of Language*. Urbana: University of Illinois Press.
 46. Linsky, Leonard, ed. 1971. *Reference and Modality*. Oxford: Oxford University Press.
 47. Linsky, Leonard, 1977. *Names and Descriptions*. Chicago: Chicago University Press.
 48. Loar, Brian. 1976. "The Semantics of Singular Terms" *Philosophical Studies* 30: 353-77.
 49. Loar, Brian, 1981. *Mind and Meaning*. Cambridge: Cambridge University Press.
 50. Loar, Brian..1985. "The Paradox of Naming" in *Analytical Philosophy in Comparative Perspective* ed. B.K. Matilal and J.L. Shaw. Dordrecht: D Reidel: 81-102.
 51. Loar, Brian. 1994. *Modality and Meaning* Dordrecht: Kluwer Academic Publishers.

52. Locke, John. *An Essay Concerning Human Understanding*. London 1690.
53. McDonald, John. 1977. "On the Sense and Reference of Proper Names". *Mind* 86: 159-85. Reprinted in Platts 1980.
54. Mill, J.S. *A System of Logic* London 1843.
55. Martinich, A.P. ed. 1996. *The Philosophy of Language*. New York: Oxford University Press.
56. Mellor, D.H. 1977. "Natural Kinds". *British Journal for the Philosophy of Science* 28: 299-312.
57. Papineau, David. 1979. *Theory and Meaning*. Oxford: Clarendon Press.
58. Passmore, John. 1968. *A Hundred Years of Philosophy*. London: Penguin Books, 2nd ed. First ed. 1957.
59. Pears, David. 1971. *Wittgenstein*. Fontana Modern Masters.
60. Pessin, A., and S. Goldberg, eds. 1996. *The Twin Earth Chronicles: Twenty Years of Reflection on Hilary Putnam's "The Meaning of 'Meaning'"*. New York: M.E. Sharpe.
61. Plantinga, Alvin. 1974. *The Nature of Necessity*. Oxford: Oxford University Press.
62. Platts, Mark. 1997. *The Ways of Meaning*. 2nd ed. Cambridge, Mass: MIT Press.
63. Platts, Mark ed. 1980. *Reference, Truth and Reality: Essays on the Philosophy of Language*. London: Routledge & Kegan Paul.
64. Putnam, Hilary 1975. *Mind, Language and Reality: Philosophical Papers, vol.2*. Cambridge: Cambridge University Press.
65. Quine, W.V.O. 1960, *Word and Object*. Cambridge, Mass.: MIT Press.
66. Quine, W.V.O *Word and the Object*. Cambridge, Mass., 1960.

67. Recanati, Francois. 1993. *Direct Reference: From Language to Thought*. Oxford: Blackwell Publishers.
68. Russell, Bertrand. 1991. *Introduction to Mathematical Philosophy*. London: George Allen and Unwin.
69. Russell, Bertrand. 1967. *The Problems of Philosophy*. London: Oxford Paperbacks, 1967. First published 1912.
70. Salmon, Nathan U. 1981. *Reference and Essence*. Princeton: Princeton University Press.
71. Salmon, Nathan U. 1982. "Assertion and Incomplete Descriptions". *Philosophical Studies* 42: 37-45.
72. Schiffer, Stephen. 1972. *Meaning*. Oxford: Clarendon Press.
73. Schwartz, Stephen P., ed. 1977. *Naming, Necessity, and Natural Kinds*. Ithaca: Cornell University Press.
74. Searle, J.R. 1971. *The Philosophy of Language*. London: Oxford University Press.
75. Soames, Scott. 1984a. "Linguistics and Psychology". *Linguistics and Philosophy* 7: 155-79
76. Soames, Scott. 1998a. "Skepticism about Meaning: Indeterminacy, Normativity, and the Rule-Following Paradox". In Ali Kazmi (ed.), *Meaning and Reference: Supplementary Volume 23 of the Canadian Journal of Philosophy*: 211-49.
77. Unger, Peter. 1983. "The Causal Theory of Reference". *Philosophical Studies* 43: 1-45.

