SINGULAR TERMINS *

The main problem in giving the semantics of proper names is that of explaining the nature of the link between name and object in virtue of which the former designates the latter.\(^1\) From Frege and Russell through to Strawson and Searle, the solution has been sought in the descriptions of the object that users of the name associate with the name. Saul Kripke has shown that all such "sense-theories" of names are mistaken. They are mistaken not merely in details but in fundamentals. He has also indi-

\(^*\) Earlier drafts of this paper were given at the Australian National University and the University of Sydney in October, 1972. It has benefited from comments made on those occasions. Also, it has benefited from many other comments, especially those made by Hartry Field.

\(^1\) I use the term 'designate' to express the relationship between any definite singular-term token and its object, and also that between the person who produced that token and the object (but see the qualifications at the end of secs. 5 and 7). I have no special fondness for the term, but it seems more apt than the other available ordinary semantic terms, 'refer' and 'denote'.

Ordinary language provides us with very few words to express the relationships between words and the world (reflecting, presumably, the lack of interest in semantics in ordinary life). All of them have very wide uses. So, in starting on scientific semantics, we have available to us only a meager vocabulary for marking the many distinctions that we may find appropriate. For example, the links between proper name and object, definite description and object, and demonstrative and object are all very different, and we might well use different terms for them. Also, we might use different terms for the relationship between the user of these singular terms and the objects. However, we can manage well enough here with the one term, 'designate'. Nothing hinges on this terminological question. In doing semantics we are not "analyzing ordinary usage." We are concerned with the nature of the relationships themselves, whatever they are called. Thus with a proper name, we are concerned with the nature of a certain relationship it has to just one object (which we might ordinarily say is "its bearer," "the object it refers to," "the object it designates," etc). The relationship in question is picked out by its crucial bearing on the truth value of sentences containing the name.

There is a further discussion of usage in sec. 6.
In part I I shall develop the causal theory, confining my attention to nonempty names in "purely referential position." In part II I shall first consider definite descriptions, arguing that a distinction recently drawn by Donnellan is to be explained in terms of causal links to objects similar to those revealed in part I for names. Second, I shall draw and explain a similar distinction for demonstratives and personal pronouns. Making use of these distinctions, I shall return to the discussion of proper names in part III.

I

1. The central idea of the causal theory of proper names is that our present uses of a name, say 'Aristotle', designate the famous Greek philosopher Aristotle, not in virtue of the various things we (rightly) believe true of him, but in virtue of a causal network stretching back from our uses to the first uses of the name to designate Aristotle. Our present uses of a name borrow their reference from earlier uses. It is this social mechanism that enables us all to designate the same thing by a name.

This central idea makes our present uses of a name causally dependent on earlier uses of it. These causal links do not, however, take us to the object. In virtue of what do the first uses of a name designate a certain object? We can see, perhaps, how we are dependent on our ancestors, but how did they manage?

Other questions occur to us. What is the nature of this causal network? How did it begin and how did it grow? What has my causal connection to Aristotle got to do with my present act of designating

cated where the truth of the matter lies, namely in a "causal theory" of proper names. This will be the central concern of the paper.

2 "Naming and Necessity," in D. Davidson and G. Harman, eds., Semantics of Natural Language (Dordrecht: Reidel: New York: Humanities, 1972), pp. 253–355. I first heard Kripke's views at Harvard in Fall 1967. As a result I developed a causal theory of proper names in my Ph.D. thesis, The Semantics of Proper Names: A Causal Theory, Harvard University, 1972. Kripke's paper has much in common with his 1967 lectures, but goes beyond them in certain respects. One or two of these developments are along similar lines to those in my thesis, which was written before Kripke's paper was available. The present paper is largely drawn from chapter II of the thesis.

Some similar criticisms of sense theories are to be found in Keith S. Donnellan, "Proper Names and Identifying Descriptions," in Davidson and Harman, op. cit., pp. 356–379.

3 I use 'name(s)' as short for 'proper name(s)'. Names within an opaque context, and empty names, both require special treatment.

him? Could a use of a name be causally linked in the appropriate way to more than one object?

2. *First Uses of a Proper Name*. A paradigm situation for naming is one in which a name is given to a previously unnamed object in a face-to-face confrontation at a "naming ceremony." The sort of ceremony that leaps to mind here is a christening ceremony or the launching of a ship. Mostly, however, such formal and elaborate procedures merely give religious and public expression to what has already been established informally and more privately.

The object in the paradigm is likely to be a humble one, and so we shall take such a case to illustrate a naming ceremony. (Thinking about names has not been helped by limiting attention to the famous and the grand.) Consider the case of our late cat. We acquired her as a kitten. My wife said, "Let us call her 'Nana' after Zola's courtesan." I agreed. Thus Nana was named.

This is the typical way for a name to be bestowed, but there are others. We shall discuss these in section 9.

What happened to those present at the naming of Nana? They *perceived* the ceremony, using at least their eyes and ears. To perceive something is to be causally affected by it. As a result of the effect it had on them, they were in a position to use the name 'Nana' later to designate the cat. What they gained at the ceremony, it seems appropriate to say, was "an ability to designate Nana by 'Nana'." 5

Let us expand this story a little, considering my situation at the naming. I gained the ability from perceiving the complex event that constituted the naming ceremony. I saw Nana. I saw my wife. I heard my wife's suggestion. I was aware of agreeing. I knew which object she was suggesting a name for. 6 As a result of the causal interaction at that ceremony among my wife, Nana, and myself, an interaction in which Nana occupied a certain place (that of an object being named), I gained my ability.

5 In order to gain this ability they must already have several other abilities. To gain the ability to use *this* name, they must already have the ability to use names *in general*. And they must realize that a name can be bestowed on an object by a ceremony of the sort witnessed. This requires, *inter alia*, that they have the ability to use "her" to designate objects (see fn. 6).

6 Clearly the role of 'her' in my wife's remark is important here. It was because it designated Nana that the name was bestowed on *her* at this ceremony. We discuss the role of personal pronouns in sec. 7. Foreshadowing that discussion, we can say now that 'her' designated the cat because of the place *she* had in the causal explanation of my wife's utterance.

My wife might have used a definite description (e.g., 'our cat') instead of a pronoun to pick out Nana. See sec. 5 for discussion of this.
A few minutes later I exercised my ability: I said "Nana is hungry." That first use of the name designated Nana. How? It designated her, because it was in fact produced by an ability that arose out of the above ceremony in which she had a certain place. In other words, it was because Nana had that special place in the causal explanation of my utterance that the name designated her.

The central idea of the causal theory was that present uses of a name are causally linked to first uses. We see now that first uses are causally linked to the object.7

Our account rests on talk of "abilities to designate objects by name." What is such an ability? We cannot offer a reduction, but we can point toward one. As materialists we expect the advance of science, particularly neurophysiology, to show us that it is a certain sort of state of the central nervous system. It is a state which is brought about in a language user by perception of a naming ceremony (and in other ways to be described) and which is apt to produce (in part) certain sorts of utterances, viz., utterances using the name in question. It is such states, whatever they are, that largely constitute the links between names and their objects.8

We shall say that underlying the use of a name is a causal chain grounded in the object the name designates. The chain underlying my first use of 'Nana' begins with Nana at her naming ceremony; it runs through my perception of that ceremony; from then on it is my ability thus gained to use 'Nana' to designate her.

3. Later Uses of a Proper Name. Two of us gained our abilities to designate Nana by her name at the naming ceremony. All others, directly or indirectly, borrow their reference from these two.

Many gain the ability directly from one of the two. I might introduce them to the cat: (i) "She is called 'Nana'," or (ii) "This is Nana." This ceremony plays the role for them that the earlier naming ceremony played for me. Their perception of Nana in that introduction will mean that underlying their later uses of 'Nana' will be causal chains grounded in her.

I might pass on the ability in Nana's absence: (iii) "Our cat is called 'Nana'," or (iv) "Nana is our cat." An ability thus gained would also be causally grounded in Nana, although this is not so apparent (for Nana is absent). In the first place, in using or mentioning the name 'Nana', I have exercised my ability which is causally

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7 In sec. 6 we shall consider some apparent exceptions.

8 Can we relate these states to nonlinguistic behavior? I think we can relate them to pointing, but that is another story which we shall not attempt here.
grounded in Nana. The person addressed *hears* my remark. This causally links him through my ability to Nana. In the second place, we must consider the role of 'our cat'. So far we have not considered (save in note 6) the role of the other singular terms used to designate Nana at the time abilities are gained. There was, for example, my wife's use of 'her' in the naming ceremony, my use of 'she' in (i), 'this' in (ii), and now 'our cat' in (iii) and (iv). Such singular terms have an important role in causally grounding the ability to designate by name in the object. We must set aside showing this, however, until we have discussed these terms in part II.⁹

There is one other important way I might pass on the ability: I might use the name in an ordinary predication. For example, I might say, (v) "Nana is hiding." Someone who hears this is in a position to borrow his reference from me.¹⁰ If he does, he gains an ability that is causally grounded in Nana via the ability I exercised in making the remark.

We have seen how those present at a naming ceremony can pass on the ability to designate an object by its name. There are many users of a name who neither were at the naming ceremony nor have come to their use from anyone who was at it. We are all in this situation with 'Cicero'.

Consider again the case of Nana. Those who gained the name from the two of us present at the naming ceremony were then in as good a position to pass it on as we were. And they pass it on in similar ways. People are told, "The Devitts' cat is called 'Nana'," or "Nana is an unusually patterned cat," and thereby gain the appropriate ability. Their later uses of the name designate Nana because she is in fact the object at the base of the causal chains underlying those uses, chains that run through several people's abilities. And so the chains continue: people acquire and use the name long after Nana is with us.

⁹ Had Nana another name known to the auditor, I could of course pass on 'Nana' by using it.

¹⁰ Sense-theories require much more extensive knowledge for someone to use a name properly. What we primarily reject in rejecting these theories is this insistence on knowledge: the link between name and object is not mediated by descriptions associated with the name which are true of just that one object. However, we need to go further: we do not require that a user of a name have any substantial set of beliefs involving the name (whether true or false). And now we seem to be going even further: we are requiring scarcely any beliefs. Perhaps this goes a little beyond our ordinary intuitions. *Precisely where* we ordinarily draw the line is unclear, although it is clear that we do not require many beliefs. In the light of the causal theory there seems no reason to reject a case like the one discussed (see also fn. 36, below).
Under each of our uses of a name lies a causal chain. These causal chains are linked together and form the causal network for the name.

So far we have considered only those uses of a name which pass it on. In fact, most uses of a name are to an audience that already has it. Each of these uses reinforces in a member of the audience the ability he has with the name. It establishes further causal linkages between him and the object. Underlying a person’s use of a name may therefore be many causal chains all grounded in the object: there may be a causal network underlying his use. The over-all network for the name is the union of all such individual networks.

It is a commonplace that a person in a position to pick up a name may fail to do so: he may fail to pay attention at an introduction; the required ability to designate the object is not acquired. Further, a person who had the use of a name may lose it; the ability fades through lack of exercise.11

4. Ambiguous Proper Names. So far I have ignored, as writers on proper names are prone to, the fact that most proper names have more than one bearer; they are “ambiguous.” The ambiguity of ‘Nana’ was clear from the start, for it was Zola’s use of it that led to its being bestowed on our cat. And there are many names much more ambiguous than ‘Nana’: consider ‘John’, for example. We need to extend our discussion to take account of this fact of ambiguity.12

Which object does a name designate? It is natural to say that it designates the object the speaker had in mind or meant. This was an insight of sense-theorists.13 Clearly what we need then is a satisfactory analysis of this vague talk. With such an analysis in hand, the solution to our problem of ambiguity would be in sight: a speaker designated one object and not another by ‘John’, because he had it in mind.

In general, one has an object in mind in virtue of a causal connection between one’s state of mind and the object. With the help

11 This loss of ability is a failure of memory. For a sense theory, what is forgotten is the required associated descriptions. For the causal theory the inability to produce descriptions usually associated with a name is evidence for loss of ability with the name, but does not constitute it.

12 Many philosophers have felt that ambiguities in names are removed by the context of use, by which is meant the context external to the speaker’s mind. I have criticized this view, claiming that the context is only the guide to an underlying reality, not the reality itself; see my “Semantics and the Ambiguity of Proper Names,” forthcoming.

of this, we are in the position to incorporate the insight of sense-theorists into our causal theory by giving the following rough analysis of having an object in mind in using a name (meaning an object by a name):\textsuperscript{14}

For any $x$, $y$, and $z$, $x$ had $y$ in mind in uttering a token of the name type $z$ ($x$ meant $y$ in uttering a token of the name type $z$) if and only if $x$ had an ability to designate $y$ by $z$ and that ability was exercised in the production of that token of $z$.

What bearing does this have on the problem of the ambiguity of names? Take the name type ‘John’. It is probably the case that most of us can designate about thirty different people with this name. Those who can each have the same number of distinct abilities involving the name, causally based on that number of objects. When they utter the name having a certain person in mind, there is (normally) one and only one of these abilities exercised in the production of the token. Which object a person has in mind depends on which ability he in fact exercises.

We can say roughly also that a name token designates an object if and only if the speaker had the object in mind (meant the object) in uttering the token.

Why do we qualify our claims here (“roughly,” “normally”)? Because there are a number of cases that throw doubt on them as they stand. These are cases where “things go wrong” for a speaker. We shall discuss them in section 10.

More than one ability to use a certain name may be involved in the causal explanation of an utterance even though only one is exercised. Consider, for example, my earlier-mentioned utterance, “Nana is hungry.” Although I exercised my ability to designate our cat in saying this, my ability to designate Zola’s courtesan by the name (setting aside here any problems of such talk about empty names) certainly had some causal role in my utterance: it was partly because of that ability that our cat was given her name. The utterance, however, was about the cat, not the courtesan, because the ability used to produce it arose from a naming ceremony involving the cat; we are not concerned with the causal explanation of that ceremony.

Each time we hear a name used, we must, in understanding it, associate it with an ability (unless we form a new ability on the strength of it). It is possible to do this wrongly and hence to mis-

\textsuperscript{14} Such locutions can be construed opaquely, so that one can mean Tully but not mean Cicero. Our concern is with the transparent construal.
understand the remark. Misunderstandings are common with very ambiguous names like 'John'. We shall consider the consequences of them later (in section 10). As a result of many remarks using the name type 'John', we acquire many beliefs concerning various people of that name. The beliefs concerning different people are, in some sense, "stored" separately with their respective abilities.

We shall return to the discussion of proper names in part III.

5. Donnellan's Distinction. We have claimed that names designate their objects because they are causally linked to them. Can we say anything similar about definite descriptions? At first sight it seems not: a definite description designates the object it describes. However, investigation of a recent distinction made by Keith Donnellan suggests that this is too hasty.

Donnellan distinguishes two uses of definite descriptions, an "attributive" use and a "referential" use:

A speaker who uses a definite description attributively in an assertion states something about whoever or whatever is the so-and-so. A speaker who uses a definite description referentially in an assertion, on the other hand, uses the description to enable his audience to pick out whom or what he is talking about and states something about that person or thing (1966, p. 285).

Donnellan brings out his distinction by giving a number of examples, particularly of situations where he claims a person is "speaking about" (ibid., 286), "referring to" (295), saying something of (301), someone in using a description, even though the description does not correctly describe that person. These are referential uses of the description. Attributive uses differ in this respect. We would naturally mark the distinction by saying that in a referential use the speaker has a certain object in mind in using the description, whereas in an attributive use he does not.

Consider two of Donnellan's examples. Suppose

... someone said ... in 1960 before he had any idea that Mr. Goldwater would be the Republican nominee in 1964, "The Republican candidate for president in 1964 will be a conservative" (293).

More precisely, the definite description 'the F' designates the one and only object that 'F' is true of.

Donnellan 1966 and 1968. My own awareness of this distinction is due to C. B. Martin, who has been urging it in lectures for many years.

Donnellan implicitly marks it this way himself in many places (e.g., ibid., 287).
Suppose the judgment was based on an assessment of over-all trends within the party. The description in that utterance is used attributively: the speaker does not have any particular object in mind; he is speaking about whoever happens to become the candidate in 1964. In contrast,

... suppose that Jones has been charged with Smith's murder and he has been placed on trial. Imagine that there is a discussion of Jones's odd behavior at his trial. We might sum up our impressions of his behavior by saying, "Smith's murderer is insane" (386).

The description here is used referentially. The speaker has a certain object in mind, namely Jones.

Leave aside for a moment the question of the semantic significance of this. The distinction seems to be a good one. However, it cries out for explanation. How can a speaker manage to "refer" to an object using a description that does not describe it? In virtue of what is there "a right thing to be picked out by the audience" (304)?

We have earlier given a causal analysis of having an object in mind in using a name. This points to what we need to say here. It was because of our experiences of Jones during his trial, and our beliefs about him, that we used 'Smith's murderer' in that utterance. Similarly, it was because of my experiences of Nana, and my beliefs about her, that I used 'our cat' in those earlier remarks aimed at passing on her name, (iii) and (iv). In a sense, the object itself leads us to use the particular definite description in such cases. On the other hand, Goldwater had (near enough) no role at all in bringing about the use of 'The Republican candidate for president in 1964'. There was no causal link between the speaker and Goldwater in virtue of which the speaker uttered what he did.

There can be a causal link of the required kind even though the speaker has had no direct experience of the object: it will be a causal connection running through others back to speakers who did experience the object. Thus, someone who has heard about our cat from me, but has never met her, can have her in mind by 'the Devitts' cat'. And we can all have Aristotle in mind by 'the philosopher who taught Alexander the Great'. One can "borrow" the ability to have something in mind.

We have said next to nothing about the nature of the causal connection required for having an object in mind in using a description. Rather, we have relied on the very obvious difference between the causal explanations of referential and attributive uses; in particular, on the very obvious difference in the causal role of the object
described. We shall now consider another case which will lead us to say more. However, to say much more requires an analysis of belief-contexts, which cannot be undertaken here.

Donnellan emphasizes that the description in a sentence can on one occasion be used attributively and on another referentially. We have illustrated a referential use in 'Smith's murderer is insane'. Now consider the following situation:

\[\ldots\text{we come upon poor Smith foully murdered. From the brutal manner of the killing and the fact that Smith was the most lovable person in the world, we might exclaim, "Smith's murderer is insane."}\]

\[\ldots\text{assume \ldots that \ldots we do not know who murdered Smith (285).}\]

We do not have anyone particular in mind; the use of the description is attributive. Yet clearly there is a causal link between the murderer and us (via the corpse) in virtue of which we used the description 'Smith's murderer'.

What distinguishes the use of this description from the earlier uses we have classified as referential is that here it is not experience of the object that leads us to use the description to refer to it. Before, we had actually seen Jones at his trial; and it was my acquaintance with Nana that led to my use of 'our cat'. Now, however, we may have never seen the murderer. Or, if we have, seeing him has not led us to use the description: we do not associate the person we saw with the murder.

It would seem that, for a speaker to have the object in mind, his use of the description must be based on perception of it. (He need not have perceived the object himself, of course. Those who have perceived it can pass on the ability to others.) Further, it is preferable that this perception be of the face-to-face variety. Consider the other extreme. Suppose that, at the time we come upon Smith foully murdered, we see a man fleeing in the distance whom we take to be the murderer. Many would doubt that this is sufficient for us to have a person in mind in using 'Smith's murderer'. We would not have a sufficient "fix" on the object. The indubitable cases of having an object in mind are based on face-to-face perception of it. It is, indeed, appropriate enough that having an object in mind should be based on face-to-face perception of it.

We have discovered that having an object in mind is not a notion with sharp borders. But this is no surprise, nor is it important.

Donnellan has detected, at the level of intuitive semantics, a difference in "meaning" or "function" which is marked by the ordinary expression 'having an object in mind'. My claim is that this distinc-
tion is best drawn by looking to the cause of utterances. It is best drawn this way, because the causal theory goes a long way toward explaining it.

Donnellan's term 'referential' is not appropriate for me. I follow Quine's use of 'refer', according to which even predicates refer. I therefore replace 'referential' with the somewhat clumsy 'designational'. I prefer talk of tokens to talk of uses of types. So, in my hands, Donnellan's distinction becomes that between attributive definite-description-tokens (briefly "a-descriptions") and designational definite-description-tokens (briefly "d-descriptions"). According to my usage, then, both a-descriptions and d-descriptions may refer, but only d-descriptions may designate.

6. The Semantic Significance of Donnellan's Distinction. The semantic significance of the causal link between a name-token and an object is clear, but what is the significance of that between a description-token and an object? \(^{18}\) After all, even an a-description enables us to say something about the object described. We have already granted to Donnellan's distinction, and hence to this link, some significance at the level of intuitive semantics. But Donnellan makes more substantial claims for the distinction at that level. These concern the role of a d-description and, related to this (and more importantly), the truth values of sentences containing one.

(1) According to Donnellan, a d-description "refers" to the object the speaker had in mind even when it does not correctly describe that object. Further, the sentence containing the d-description is true or false according as the predicate in it is true or false of that object which the speaker had in mind.\(^{19}\) In all Donnellan's examples the d-description does not correctly describe anything; so the choice is between reference to what the speaker had in mind and reference failure. Donnellan plumps for the former. He does not discuss any example where the speaker has one object in mind but the d-description he uses correctly describes another. However, the implication of his discussion is clear: in such a case the d-description refers to the first object and the truth value of the sentence depends on its characteristics.\(^{20}\)

Donnellan's claims are too strong. First, many of his remarks using

\(^{18}\) Kripke, op. cit., p. 345n, doubts that Donnellan's distinction has any semantic significance.

\(^{19}\) See, e.g., Donnellan 1966, p. 295. Donnellan allows that in some "extreme circumstances," this may not be the case.

\(^{20}\) See ibid., p. 291, particularly the sentence: "It does not matter here whether or not the woman has a husband or whether, if she does, Jones is her husband" (my emphasis).
the term ‘refer’ seem to presuppose that, pre-theoretically, there is a clear-cut semantic notion picked out by this term which it is our task to investigate. In fact, this term in philosophy is largely a term of art gaining its meanings from the semantic theories in which it is embodied. This is true of Donnellan’s use, as it is also of mine. The pre-theoretical (“ordinary”) use of the term is so loose that it can encompass a variety of such meanings. Donnellan’s claims about “reference” become substantial, rather than merely verbal, therefore, only when we see their bearing on his claims about truth.

Suppose that I was under the misapprehension that Nana was our neighbor’s cat which we were looking after for a while; my wife had told me this story in order to get Nana into the house. The day after her arrival, she disappears. Talking about this later in the day, I say, “Our neighbor’s cat has disappeared.” Now, in fact, our neighbor has a cat, Jemima, whom I have never seen or heard of and who is safely at home. Did ‘our neighbor’s cat’ refer to Nana or Jemima? My claim is that, taken on its own, this is a purely verbal question. Clearly, my description is semantically linked to both cats, though the links are of a different kind: I had Nana in mind, but the object my description correctly described was Jemima. Whether we say that the description “refers to” (“designates,” or “denotes”) the one or the other is of no interest until we see what follows within the theory from so saying.

This brings us to the second point. Donnellan would say (it seems) that I referred to Nana and, hence, that what I said was true. We are here faced with a substantial question to which Donnellan gives a simple answer. It seems to me that the correct answer is far from simple. When we attend to the semantic link to Nana we are indeed inclined to say the sentence is true, but when we attend to the different link to Jemima we are inclined to say it is false. Considering the whole picture, we don’t know what to say. There is one thing we might say which, despite its paradoxical sound, seems to me to be right: that it was partly true and partly false. We shall discuss the notion of partial truth in section 10.

In cases of the sort Donnellan discusses, where the description does not correctly describe anything and so there is only one object involved, we are more likely to accept that the statement is true or false as the case may be with that one object. But we might prefer

21 See e.g., ibid., p. 293. This is a common presupposition, as some of Donnellan’s references to the views of others show.

At one point (1968, p. 210) Donnellan himself claims that dispute here is merely verbal. Yet many of his claims about “reference” have the ring of something far more substantial than this would allow.
to say, and I think we should say, that it is partly true (false) and partly truth-valueless.

Initially we granted to Donnellan's distinction, and hence to the causal link, some intuitive semantic significance. We have now gone a little further: we have seen that it bears on the truth values of statements: because I had Nana in mind, "Our neighbor's cat has disappeared" is not simply false; though it is not simply true, as Donnellan claims, either. And the distinction has more significance yet.

(2) It has often been noted that many of the definite descriptions that we ordinarily use correctly describe lots of objects; Russell's uniqueness condition is not satisfied. Consider the sentence, "Put the book on the table"; the world is full of books and tables. Following our earlier usage, we shall call these, "ambiguous" definite descriptions.

Just as the solution to the problem of ambiguous names has been sought in the context, so also has that of ambiguous descriptions. One is inclined, as Donnellan points out, to save Russell's view by relying on the context "to supply further qualifications on the description to make it unique" (Donnellan 1968, p. 204n). Donnellan himself seems to suggest that the context settles which object an ambiguous d-description refers to.²² We, on the other hand, make use of our explanation of Donnellan's distinction to offer an analysis here analogous to our earlier analysis for ambiguous names. An ambiguous d-description designates the object the speaker had in mind;²³ i.e., it designates the object that causally results in the use of the description. Our earlier speaker designated this book and that table because of their special place in the causal explanation of his utterance. The external context is merely a guide to this reality.²⁴

This discovery is certainly of semantic significance. The causal link has a role in determining the designatum of a d-description and, hence, the truth value of the sentence containing it.

(3) We have pointed out earlier (in section 2) that a definite description may be used at a naming ceremony to pick out the object to be named. So the connection between a name token and its object may be mediated by a description. Clearly if that connec-

²² His remarks here are only suggestive: he is not attempting an analysis.
²³ We are now ignoring cases where the description does not correctly describe the object in mind.
²⁴ Our argument against the contextual view here would be similar to that against it for names; see my "Semantics and the Ambiguity of Proper Names," op. cit.
tion is to be an unbroken causal chain, as we have claimed, that
description must be a d-description; only a d-description is causally
based on the object. And what we find in all normal naming cer-
emonies, indeed, is that the mediating description is a d-description.

We can, however, invent some very abnormal naming ceremonies
where it is not. "Let us call the heaviest fish in the sea 'Oscar'.' 'The
heaviest fish in the sea' is an a-description. If we go on to use
'Oscar', the name would not be causally based on an object. Would
this count as a naming ceremony, and would 'Oscar' count as a
name? We need not legislate on this rather uninteresting question.
We shall merely note that the "naming-ceremony" and the "name"
are abnormal and that they differ from normal ones in the respect
noted. We shall mark the difference by calling the likes of 'Oscar'
"attributive names" (briefly, a-names), reserving the term 'name'
for the normal ones.²⁵

This bearing of our discussion of definite descriptions on the
semantics of names may not seem very significant. For, even if what
we have claimed to be abnormal were normal, what difference
would it make to the semantics of names? The causal chain would
not run right to an object, but it would still be linked to the ob-
ject described by the description. This is a good point, and it brings
us to our final remark in this section.

(4) Perhaps the most significant aspect of the distinction we have
made between d-descriptions and a-descriptions, and hence between
names and a-names, is its important bearing on the semantics of
propositional-attitude and modal contexts. But this we must leave
to another time.

We have mentioned earlier (in section 5) that to say more on the
nature of Donnellan's distinction we need an analysis of belief con-
texts. We see now that we need this also to appreciate its full
significance.

7. Demonstratives. We next consider demonstratives and personal
pronouns (briefly, "demonstratives").

When a demonstrative is used "out of the blue" to designate an
object, it is clear that there is some causal link between the speaker

²⁵ A more difficult case is the following. Suppose we detect unexplained ir-
regularities in the movement of the planets. This leads us to conclude that there is a
planet of a certain mass (M) in a certain orbit (O) outside the range of our
telescopes. One of us says: "I name the planet of mass M in orbit O 'Vulcan',
On our account the description is an a-description, and 'Vulcan' an a-name. Yet
'Vulcan' would function much like a normal name. The justification for our
procedure is alluded to in par. (4) below.
and the object in virtue of which he uses the demonstrative. He is *perceiving* the object, or has just perceived it. It is the causal action of the object on him that led him (in part) to do what he did. Because of this we can truly say that he had that object in mind in using the demonstrative. Thus, at our earlier naming ceremony, my wife had Nana in mind in using ‘her’ in that it was the causal action of Nana on my wife that led her to use the pronoun.\(^{28}\)

Commonly, the “out of the blue” demonstrative will be accompanied by a pointing gesture of hand or eye toward the object. On its own this gesture would very often be insufficient to identify the designatum. What determines that one aspect and not another of the vaguely indicated environment is designated is that the speaker had that aspect in mind. We look to what *caused* the behavior in order to remove ambiguities.\(^{27}\) Sometimes, no gesture is called for—it is not with ‘I’\(^{28}\)—and, other times, none is given. Again we look to the cause of the utterance to determine reference.

Suppose that the object pointed to and the object in mind are different. Which is designated? This is similar to the question raised concerning ‘our neighbor’s cat’ in section 6 and to the question that will come up in section 10 for various names. I urge a similar answer.\(^{29}\)

When a demonstrative is not used “out of the blue,” the speaker may not have an object in mind. And a demonstrative is often not so used: it “may depend for its reference upon determinants in antecedent verbiage”;\(^{30}\) It is a way to *cross-refer*.\(^{31}\) In such a case the demonstrative borrows characteristics from the singular term on which it depends. If that singular term is causally linked to an object so that the speaker had that object in mind, then so also is the demonstrative. If not, not. If it is dependent on an earlier “out of the blue” demonstrative, or a name, or a d-description, then it will be so linked. If, on the other hand, it is dependent on an a-

\(^{26}\) It can be shown (after a discussion of belief-contexts) that this causal link between demonstrative and object is the basic link on which the links between name and object, and description and object, ultimately depend.

\(^{27}\) Note that, at this point, designation is related to nonlinguistic behavior.

\(^{28}\) The brief general account we are giving here degenerates somewhat with ‘I’, but nevertheless is still applicable.

A full account of “out of the blue” demonstratives would have to take note of the differences among demonstratives, and of the role that an accompanying general term can play. The account here is much simplified.

\(^{29}\) Discussions with Ross Poole have helped me in writing these last two paragraphs.


\(^{31}\) Definite descriptions (e.g., ‘the man’) can also be used to cross-refer. The remarks in this paragraph apply to such descriptions also.
description, an a-name, or an indefinite singular term, then it will not. For example, both the definite description and the demonstrative are causally linked to an object in the first of the following sentences, but neither are in the second:

Our cat is hungry because she hasn't eaten for several hours.
The heaviest fish in the sea is not a shark nor is it a whale.

I call a demonstrative where the speaker has an object in mind a "designational demonstrative token" (briefly, "d-demonstrative") and one where the speaker does not have an object in mind an "attributive demonstrative token" (briefly, "a-demonstrative"). According to my usage, then, both a-demonstratives and d-demonstratives may refer, but only d-demonstratives may designate.

I shall use the term 'd-term' for name-tokens, d-descriptions, and d-demonstratives. Analogously, 'a-term'.

We must now return to proper names.

III

8. Further Involvements of an Object. Nana is involved in the causal network for her name at more points than its beginning at her naming ceremony; the network is multiply grounded in her.

This arises, in the first place, because of the role of other singular terms in passing on, and reinforcing, abilities with names. Suppose I pass on 'Nana' by means of (ii), "This is Nana," together with a pointing gesture. Nana will be both mediately and immediately causally involved in this passing on. She will be mediately involved via the ability I exercise in using her name, an ability grounded in her at the naming ceremony. She will be immediately involved in that 'this' is a d-demonstrative: she is present at the utterance, and her presence leads to my use of the demonstrative. Thus, someone who gains an ability from this utterance will gain one that is doubly grounded in Nana. And the situation would have been similar had Nana been absent and had I used a d-description to pass on her name, say, by means of (iii) or (iv).

Nana is always mediately involved when her name is used to designate her. However, in the second place, she may be immediately involved in that use (even though no other singular term features). Suppose Nana is present and her presence leads someone to designate her by name, thus exercising his ability to do this. He is in the position where he has her in mind quite independently of his ability to use her name. This could have led him to use a demonstrative to designate her, but instead it led him to use her name. She is
again causally involved both mediately and immediately in that utterance.

If an object is picked out by an a-description at its naming, then any token based on this naming will be an a-name (section 6); the object is not involved in the causal network for that term at the network’s beginning. It may become involved later, however, in ways just indicated. If it does, then the network becomes grounded in the object: a-names are replaced by names.

9. Other Ways of Naming. Many names are acquired not at a naming ceremony but through use. Nicknames, in particular, are commonly not bestowed ceremonially, but rather are used, seem apt, and hence catch on. Other names may be similarly acquired. A previously unnamed animal or place may be called by a certain name on some occasion and the name catch on. In criminal and underground political circles, people often adopt new names. Authors often adopt pseudonyms.

A name of this kind may have to be used several times for an object before we would accord it the status of being its name (or one of its names). But this is not important. Each of these uses, even the first, designates the object.

How can this be? In virtue of what does such a first use designate the object? Our answer is along familiar lines. The speaker had the object in mind. He had it in mind in virtue of a causal connection. This connection might have led him to use a certain description had he been searching for a description to designate it, or a certain demonstrative had he been searching for a demonstrative, but did lead him to use a certain name when he was searching for an apt name for it. Part of what he intended was to bestow the name (provisionally, perhaps) on the object.

Some names are acquired without either ceremony or use. When a child is born in our society, it automatically takes its parents’ last name; those present have the name already available to label it. The causal network starts at the birth, with these face-to-face confrontations between the child and the first users of its name.

Many have claimed that we cannot refer to “future objects” by name.\(^{32}\) Our theory accords well with such claims: causes must precede effects; so the naming ceremony involving the object must precede the causal network that it gives rise to. These claims, however, seem unduly rigid. There seem to be occasions where we do

use the names of a “future object,” particularly where there exists a plan or blueprint for the object. We need not go along with the claims. We can allow such names although, in our terminology, they are a-names.

10. Mistakes and Other Failures. The picture presented so far has been briefly as follows. When a name occurs in a statement, there is underlying that occurrence a causal network grounded in an object. In virtue of this the name token designates the object. This is an idealized picture. Many things can go wrong, and typically some of them will have gone wrong. More than one object will usually be appropriately linked to a name token.

First, two objects can be involved at the gaining or reinforcing of an “ability,” one mediately and one immediately. This is apparent in light of our discussion of how an ability can be doubly grounded in an object (section 8). Suppose for example my statement (ii), “This is Nana,” is false: it is actually Jemima. (I am mistaken, or perhaps I am lying.) Any “ability” gained as a result will be grounded in Nana via my use of her name, and in Jemima via the demonstrative. Would later uses of ‘Nana’, arising from this, designate Nana or Jemima, neither, or both? Or suppose that the object immediately involved, in the use of ‘Nana’, as a result of her presence, is not Nana (as we supposed in section 8), but Jemima. In a sense, the speaker has both cats in mind in using the name. What is designated by that use and hence will be designated by someone who uses the name as a result of it? 83

The examples become harder when we consider the role of definite descriptions. Suppose that Jemima is the object correctly described as “our cat” and yet I state, “Nana is our cat.” Here we must distinguish mistakes and lies.84 First, suppose I am lying: I have Jemima in mind in using ‘our cat’, knowing quite well that Nana is not our cat. Once again, any “ability” with ‘Nana’ gained from this will be causally grounded in both cats. Secondly, suppose I am mistaken: I have Nana in mind in using ‘our cat’, but wrongly think this description is true of her. We have already discussed the difficulties of such a description (in section 6). We need add here

83 I mention some further complications in passing. (a) A sentence like (i) to (iv) that would normally pass on a name may be false and yet there not be two objects involved: there may be one or even none. (b) The speaker might be both lying and mistaken, with the result that his lie “cancels out” his mistake (a possibility suggested by Manfred von Thun).

84 I spare the reader descriptions of plausible settings for the mistakes and lies we are here contemplating.
only that, although Jemima will be involved \textit{in some way} in an ability arising out of this mistake, only Nana will be causally involved in the appropriate way.

We have seen so far how two objects can be involved in the one causal network at the gaining or reinforcing of an “ability.” Second, more than one ability, and hence more than one network, may have an immediate role in the production of a name token. When this happens, we have slips of mind or tongue, cases of “crossed wires.” A classical example of this sort of occurrence was supplied by Canon William Archibald Spooner.\textsuperscript{35} Canon Spooner once delivered a sermon that included many uses of ‘Aristotle’. He was leaving the pulpit at the end when suddenly he stopped, returned, and announced to the congregation, “When in my sermon I said ‘Aristotle’ I meant St. Paul.” We are inclined to say that Spooner had St. Paul in mind but designated Aristotle. Two abilities had a role in the production of the tokens of ‘Aristotle’: the St.-Paul-ability set the mechanisms in motion, but the Aristotle-ability intervened in the process, substituting its token.

Third, and finally, we note that \textit{misunderstandings} can lead to the involvement of more than one object in a causal network. In section 4 we pointed out that, on hearing a name, we must associate it with an ability (or form a new one) to understand it. We can do this wrongly and hence \textit{misunderstand}.

Consider the following situation. Joe has a number of politically well-informed friends who frequently discuss the history of socialism. They often use the name ‘Liebknecht’, sometimes to refer to Wilhelm, the father, and sometimes to Karl, the son. Joe, who knows little of politics, finds himself on the edge of these discussions and takes all these uses of the name to be about the one person. Later he uses it in a statement. Does he designate Wilhelm or Karl?

Joe is not only confused himself, he spreads confusion. He spreads it most obviously to those he passes the name on to. But he spreads it also among those who already have both uses of the name. Whatever way they interpret Joe’s remarks (unless they are aware of his sorry state) they will be tainted by his confusion. Instead of reinforcing an ability by establishing new causal linkages to one of the objects, each such remark damages the ability by bringing both objects into one network.

In section 4 we qualified our remarks \textit{on having an object in mind} in using a name and on \textit{designating} an object by name. The

\textsuperscript{35} Graham Nerlich reminded me of this.
three types of failure we have just discussed amply demonstrate the need for these qualifications.\textsuperscript{36} What more can we say now?

We shall say no more of having an object in mind. This notion was but a stepping stone to our account of designation (by name), which is for us that relation between name and object which has a crucial bearing on truth. What must we conclude about designation and truth as a result of this discussion?

I shall make use here of an idea of Hartry Field's.\textsuperscript{37} He has argued that many scientific terms are referentially indeterminate. His main example is the Newtonian term 'mass'. He claims (in the light of the special theory of relativity) that there is no matter of fact about whether this term denoted "relativistic mass" (= total energy/c\(^2\)) or "proper mass" (= nonkinetic energy/c\(^2\)). The term, however, was not denotationless. Rather, it "partially denoted" both relativistic mass and proper mass. With the aid of this new semantic notion Field is able to give a truth definition yielding desired truth values for Newton's utterances. For example, the following Newtonian assertion comes out true:

To accelerate a body uniformly between any pair of different velocities, more force is required if the mass of the body is greater.

Others come out neither true nor false.

A fairly straightforward development of this approach enables us to assign appropriate "degrees of truth" to these truth-valueless sentences.\textsuperscript{38} For example, instead of saying merely that 'a' partially denotes \(b\) and partially denotes \(c\), we say that it denotes \(b\) to degree \(p\) and \(c\) to degree \(q\). We can then explain the degree of truth of the sentence containing 'a' in terms (partly) of these degrees of denotation.\textsuperscript{39}

What the failures we have discussed in this section show is that a name token may "partially designate" more than one object: to a certain degree it designates \(b\), to another degree, \(c\). With the help of this we can give a truth definition yielding intuitively desirable

\textsuperscript{36} Further reasons for qualification, at least if we are trying to capture all our ordinary intuitions on the matter, are to be found in Kripke, op. cit., particularly p. 301. Kripke gives some examples that suggest elements of truth in sense-theories. And we could give others. These examples strike me as peripheral. It is appropriate that we should revise our intuitions about them in the light of the causal theory.


\textsuperscript{38} The development is also due to Field, but does not appear in the article cited.

\textsuperscript{39} Cf. the standard referential semantics, which explains truth in terms (partly) of denotation; see Field, "Tarski's Theory of Truth," this JOURNAL, LXXIX, 13 (July 13, 1972): 347–375.
truth values. Thus, suppose Joe half-designates Wilhelm and half-designates Karl by 'Liebknecht'. The following sentences of Joe's:

Liebknecht was a socialist.
Liebknecht was a Swiss.
Liebknecht was the proto-martyr of German Communism.

come out true, false, and half-true, respectively. In other cases, the assigning of degrees of designation will not be so simple. In most, of course, there will be arbitrariness in the decision. What is important to our theory is that we look to the causal explanation of the token in question in making our decision. Many sentences that we would before have deemed true may come out not fully true, but, say, 90 per cent true. But this need not disturb us. If Field is right, partial truth is all we can hope for from much of our most cherished science.

11. Earlier Insights Captured. We shall conclude by noting various insights of earlier theories of proper names which are fully or partly captured by our theory.

First, we must agree with Mill: a proper name designates but it does not "imply any attributes." 40

Both Russell and the early Wittgenstein held an almost mystical view of the relationship between a name and its bearer. It is a relationship of the utmost intimacy: the nature of a name is such that it immediately and directly focuses attention on the object (and that's all it does). We have seen that names are, in a quite clear sense, immediate pointers to their objects. But the relationship is not the least bit ineffable; it is a matter for scientific investigation.

Sense-theories make use of a certain fact: a man's ability to use a name is accompanied by various beliefs about its bearer which have arisen largely from the history of his experiences with the name. For us, each of these experiences will form a link in the causal network underlying his present use; the network embodies the history. And, of course, the name user's beliefs about the object will in part reflect that history. We differ from sense-theorists in not making the connections between name and object depend on the truth of those beliefs.

Some philosophers have indicated the importance of reference borrowing to the use of names. 41 We give it a central role. But we do not require that name users keep track of their borrowings.

Identity statements pose a difficulty for a theory of names. The

41 E.g., Strawson, op. cit., p. 182n.
difficulty arises from what Frege called "the differing cognitive values" of \(a = a\) and \(a = b\).\(^{42}\) Awareness of this difficulty has pushed some philosophers away from the natural view that identity is what it seems to be, a relation between objects, toward the view that it is a relation between signs (e.g., *ibid.*, p. 10). Objections to the latter view led Frege to his sense theory of names and led others \(^{48}\) to even more desperate expedients.

One aspect of the difference between the two statements that has been a source of worry is as follows: whereas \(a = b\) seems to be "synthetic," "contingent," and "empirical," \(a = a\) seems to be "analytic," "necessary," and "a priori." This aspect need not worry us. We must sharply distinguish the "metaphysical" term 'necessary' from the "epistemological" term 'a priori', as Kripke has pointed out (260–263). If we do, it is not hard to see that \(a = b\), if true, is necessarily true (for names), even though it may be known empirically (305–311).

However, we must still explain the "differing cognitive values" of the two statements. This we can easily do. Frege rightly saw that the solution to the difficulty lay in the different "modes of presentation" of the object associated with \(a\) and \(b\) (*op. cit.*, p. 57). Frege's mistake was to embody these modes within "senses." For us the modes are the causal networks underlying the names. There is nothing more to the "meaning" of names than these networks. Underlying \(a\) will be a very different network from that underlying \(b\).\(^{44}\) Thus the "cognitive value" of \(a = a\) will be very different from that of \(a = b\).

We began this paper with the claim that the main problem in giving the semantics of proper names is that of explaining the nature of the link between name and object in virtue of which the former designates the latter. In considering this problem, many have seen that the user of a name must, in some way, identify an object, the object he "has in mind." What does this identification amount to? The received answer has been that it is the speaker's ability to pro-


\(^{44}\) This will be so even if the speaker associates the same descriptions with the two names. Hence the absurdity of John Searle's claim that 'Tully = Cicero' is "analytic" for most of us; see "Proper Names," *Mind*, lxvii, 266 (April 1958): 166–173, reprinted in Caton, *op. cit.*, pp. 154–161.
duce an identifying description of the object. This is mistaken.\textsuperscript{45} The speaker is indeed important, but identification depends not on anything he could or would do but on what he did: for underlying what he did was a causal network grounded in an object. Only in this way does a speaker identify an object. Causal networks link names to the world.

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DEMONSTRATIVE CONSTRUCTIONS, REFERENCE, AND TRUTH

SENTENCES whose normal use involves a demonstrative element play a lead role in the employment and acquisition of natural languages. Such sentences appear more than any other kind in day-to-day communication. They occur repeatedly in ordinary empirical thinking. And they are the first sentences to be taught to a first-language learner (or radical translator). Indeed, given the limits of our intelligence, memory, and knowledge, it is doubtful that without them we could learn language or utilize it to describe particular objects, events, or experiences. The reason for this virtual omnipresence of sentences involving a demonstrative element is that they are peculiarly dependent for their interpretation on the context of their use. Their truth value typically depends on someone’s actually speaking, writing, or thinking them in a relevant context. The resulting dividend for language learning is obviousness: since the correct interpretation of these sentences occurs, as it were, on the spot, many of them can be taught with relative ease to the novice—one has merely to correlate them with the appropriate spots. The dividend for communication and thinking is economy: a gesture saves a thousand words.

My aim in this paper is to motivate and sketch a unified formal theory of some of the most ordinary kinds of sentences involving a demonstrative element. The theory will emphasize a point that has not been treated with sufficient seriousness in recent formal accounts. The point is that ordinary sentences containing demonstra-

\textsuperscript{45} The move from a correct view to a mistaken one is nicely illustrated by Searle’s move from his “axiom of identification” to his “principle of identification”; see his *Speech Acts: An Essay in the Philosophy of Language* (New York: Cambridge, 1969), pp. 77–88.

\textsuperscript{*} I am indebted to Gilbert Harman, David Kaplan, Dana Scott, and John Wallace for criticism of earlier versions and to Harry Deutsch for many helpful and stimulating conversations.