Reference and Proper Names

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REFERENCE AND PROPER NAMES*

I T is perhaps surprising that one needs to theorize about proper
names.[1] They seem to present a straightforward, uncomplicated
example of how language relates to the world. During the last
eighty years, however, there has been considerable disagreement on
issues surrounding them. The disagreement has centered on three
broad questions: (a) the question of how to explicate the conditions
under which a proper name designates an object; (b) the question of
how best to speak (semantically and pragmatically) about nondesig-
nating proper names; and (c) the question of the logical role of proper
names in a formal theory of language.

In this paper I will be primarily concerned with the third of these
questions, although I shall touch briefly on the other two. In partic-
ular, I will be concerned with the logical role of proper names in a
semantical account of natural languages. The semantical framework
within which I shall be working is Tarskian truth theory as applied
to the sentences of a person at a time. But most of what I have to say
will hold for other semantical approaches.

At the outset I want to place a condition of adequacy on our ap-
proach. This is the condition that the theory of truth be *fully formal-
ized*—that is, that the sense and reference (if any) of every expression

[1] In what follows I shall use 'proper name' in an intuitive way. Intuitively,
proper names are nouns that do not describe the objects, if any, to which they
apply, and which may in natural language function without modification as
singular terms. I exclude from present considerations certain names—"canonical
names" such as '0'—which are perhaps best represented as individual constants.
Roughly, such names carry a uniqueness presupposition at all their occurrences
that is sufficiently global for them to figure in our most comprehensive, context-
free theories. Like 'proper name', the term 'designate' is to be construed intui-
tively—until defined.

of the theory should be unambiguously determinable from its form.[2] Interpretation of the truth theory should depend on no contextual parameter other than the inescapable one: the symbols of the theory are to be construed as symbols in the language of the theorist. So much context must be presupposed. But natural languages intuitively exhibit two further sorts of context-dependence: dependence on context for determination of the intended reference of token-reflexive constructions, and dependence on context for determination of the intended reading of ambiguous words and grammatical constructions. An effect of the condition is to rule out use of demonstratives or ambiguous constructions in a truth theory to account for use of demonstratives or ambiguous constructions by the person whose sentences are being studied. The motivation for the condition is simply that theories of language should be no less general and precise (where feasible) than mathematical or physical theories.

It is possible to distinguish two major positions on the question of the role that proper names play in a formal semantical theory. One is the view that proper names play the role of constant, noncomplex singular terms. The other is the view of Russell, elaborated by Quine, that they play the role of predicates.[3]

To my knowledge there are no arguments in the literature for thinking that proper names are individual constants. But the intuitive considerations that seem to support this position lie right on the surface: In their most ordinary uses proper names are singular terms, purporting to pick out a unique object; they appear to lack internal semantical structure; they do not seem to describe the objects they purportedly designate, as definite descriptions do; and in some sense they specify the objects they purportedly designate, as demonstratives do not. It is probably true to say that most philosophers, linguists, and logicians have on these grounds accepted an individual-constants view of proper names.

[2] For expressions of this notion of a formal system, see Gottlob Frege, "On Sense and Reference," in *Translations from the Philosophical Writings of Gottlob Frege*, P. Geach and M. Black, eds. (Oxford: Blackwell's, 1966), p. 58; and Alfred Tarski, "The Concept of Truth in Formalized Languages," in *Logic, Semantics, Metamathematics* (New York: Oxford, 1956), pp. 165–166.

[3] For an example of the constants view, see H. P. Grice, "Vacuous Names," in *Words and Objections*, Donald Davidson and Jaakko Hintikka, eds. (Dordrecht: Reidel, 1969). Chief sources of the predicate view are Bertrand Russell, "Knowledge by Acquaintance and by Description," *Proceedings of the Aristotelian Society*, XI (1911): 108–128; "The Philosophy of Logical Atomism" (1918) in *Logic and Knowledge*, Robert Charles Marsh, ed. (London: Macmillan 1956), esp. pp. 241–254; W. V. O. Quine, "On What There Is," in *From a Logical Point of View* (New York: Harper, 1953), p. 6; first published 1948; and *Methods of Logic* (New York: Holt, 1950), pp. 218–219 (in 3d ed., 1972, pp. 228–230).

The traditional predicate view has been prompted by a sense of the clarity and simplicity that results in one's theory of reference if one treats proper names as abbreviated or manufactured descriptions. Whatever its philosophical virtues, this view has been widely regarded as having the vice of artificiality, at least insofar as it is supposed to give analyses of sentences in natural languages.

The view I shall maintain is, roughly speaking, a modified predicate view. The main body of the paper will be devoted to setting out my view with explicit reference to the predicate approach of Russell and Quine. In sections II and III I shall relate that view briefly to the questions about application conditions and about failures of designation. I shall conclude in section IV by criticizing the treatment of proper names as individual constants.

I

I remarked that the traditional predicate view was widely thought to have the disadvantage of artificiality. In fact, there are three points at which the Russellian approach has been held to do violence to ordinary preconceptions. The first is its treatment of proper names as abbreviated or manufactured descriptions. The violated preconception here is simply the notion that names do not describe. Appeals to abbreviation or manufacture are transparently *ad hoc*. The second point at which Russell's approach has seemed artificial is its elimination of definite descriptions (including proper names) as incomplete symbols. In this case, the violated preconception is the notion that names play the semantical and grammatical role of singular terms. The third alleged element of artificiality is the closing of apparent truth-value gaps. And the violated preconception here is that some sentences that involve failures of designation are neither true nor false.

These points are, of course, recognized by Russell and Quine. Russell tends to regard the cited preconceptions as indefensible confusions. Quine sees them as relevant evidence for understanding natural language, but irrelevant to, or dispensable in the face of, his purpose of constructing a smooth logical theory suitable for the general use of natural science. Since we are concerned with understanding natural languages, we need not take exception to Quine's view of the matter here. Our grammatical and semantical preconceptions are evidence for a theory of natural language; their bearing on the development of logical theory for general scientific use is a further question.

I intend to postpone the issues regarding the elimination of definite descriptions and the closing of so-called truth-value gaps, and concentrate on the first source of artificiality in the traditional predicate

view: the claim that proper names are abbreviated or manufactured descriptions.

There are two ways in which a proper name has been seen to function as an abbreviation. One is that it abbreviates a string of descriptive general terms that the language-user would employ—or abbreviates an artificial predicate like 'Aristotelizes'. The other is that a proper name abbreviates into one symbol the semantical roles of operator and predicate which, in definite descriptions, are usually represented separately by at least two symbols: the 'the' (or an analogous construction) and the general term. In explaining my view I shall deal consecutively with these two senses of abbreviation. I shall argue first that proper names do not abbreviate predicates but are predicates in their own right. Then I shall argue that they do not abbreviate the roles of predicate and operator, but that in some of their uses they play the roles of predicate and demonstrative.

Russell sometimes holds that a proper name abbreviates the descriptions the speaker associates with the putative designation of the name. Since this view has been criticized in detail elsewhere,[4] I will not take the time to discuss the difficulties with it here. Suffice it to say that proper names ordinarily have at best a tenuous logical relation to the descriptions that language users associate with them, certainly not the relation of abbreviation.[5]

In one passage, Russell suggests that a proper name abbreviates the description 'the object called "PN" ', where 'PN' stands for the proper name.[6] I think that there is something to be said for this suggestion, and we shall return to it later. But one may say against it that it is needlessly counterintuitive and that it leads to unnecessary theoretical complications. Intuitively, proper names simply do not describe. Theoretically, it is undesirable to postulate abbreviation rules if they can be avoided. I think that they can be.

A proper name is a predicate true of an object if and only if the object is given that name in an appropriate way. There is and need be no claim that a proper name abbreviates *another* predicate, even a

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[4] Keith S. Donnellan, "Proper Names and Identifying Descriptions," *Synthese*, XXI, 3/4 (October, 1970): 335–358; Saul Kripke, "Naming and Necessity," in Donald Davidson and Gilbert Harman, eds., *Semantics of Natural Languages* (Dordrecht: Reidel, 1972), pp. 253–355.

[5] Some philosophers have held that a proper name does not abbreviate, but rather presupposes a set of descriptions uniquely true of the designated object (if any). Cf. John Searle, "Proper Names," MIND, LXVII, 266 (April 1958): 166–173; P. F. Strawson, *Individuals* (New York: Doubleday, 1959), p. 20. This view faces a number of difficulties, but it is compatible with various positions on the semantical role of proper names, so there is no pressing reason to discuss it here.

[6] "The Philosophy of Logical Atomism," *op. cit.*

roughly coextensive predicate such as 'is an entity called "PN"'. A proper name is a predicate in its own right.[7]

Failure to appreciate this point has stemmed largely from concentrating on singular, unmodified uses of proper names:

Alfred studies in Princeton.

But proper names take the plural:

There are relatively few Alfreds in Princeton.

They also take indefinite and definite articles:

An Alfred Russell joined the club today.

The Alfred who joined the club today was a baboon.

And quantifiers:

Some Alfreds are crazy; some are sane.

Proper names are usually used in singular and unmodified form. But there is nothing ungrammatical about the above sentences.[8] Moreover, the occurrences of proper names in them are literal and not metaphoric or ironic. Contrast these uses with the metaphoric use in

George Wallace is a Napoleon.

George Wallace is not literally one of the Napoleons—he has not been given the name 'Napoleon' in a socially accepted way. Rather, he is like the most famous Napoleon in significant respects.

The modified proper names in the examples just given have the same conditions for literal application to an object that singular, unmodified proper names have. This point is confirmed by such sentences as

(1) Jones is a Jones.

which is an obvious truth under normal conditions of use.

Now one might claim that the uses I have cited are "special" uses of proper names, and that they should not be taken as throwing light on the usual uses. Vendler, for example, notes that there is "something unusual" about noun phrases like 'the Joe in our house':

Such phrases do occur and we understand them. It is clear, however, that such a context is fatal to the name as proper name, at least for the discourse in which it occurs. The full context, explicit or implicit, will be of the following sort:

[7] Calling proper names "predicates" slurs a distinction which for present purposes is unimportant but which is worth bearing in mind. Strictly speaking, proper names are general terms which, together with a copula and an indefinite article on some occurrences, are parsed as predicates in a formal semantical theory.

[8] Worth mentioning here is the syntactic theory of Clarence Sloat, "Proper Nouns in English," *Language*, XLX (1969): 26–30, which Edwin Martin and Barbara Partee called to my attention. Sloat gives a neat account of proper names which treats them on a close analogy to common nouns. Clearly, such a syntactical account is congenial with our predicate view of the semantical role of proper names—and uncongenial with an individual-constants view.

> The Joe in our house is not the one you are talking about . . .
> As the noun replacer, *one*, makes abundantly clear, the name here
> simulates the status of a count noun. There are two Joe's presupposed
> in the discourse, and this is, of course, inconsistent with the idea of a
> logically proper name. *Joe* is here really equivalent to something like
> *person called Joe*, and because this phrase fits many individuals, it
> should be treated as a general term by the logician.[9]

We may agree with Vendler that modified occurrences of ordinary
names are in a sense not "proper" to any one object. But it would
be a mistake to think that the passage provides any reason to hold
that modified and unmodified occurrences of ordinary proper names
are semantically independent of each other. For no reason is given to
believe that ordinary names are ever "logically proper names" (pre-
sumably individual constants). In a limited context, proper names
may be—and often are—assumed to apply to a unique object. But a
semantical theory (like ours) that is applicable to a language without
restrictions on the context in which sentences of the language may be
used, cannot commit itself to such an assumption.

Postulation of special uses of a term, semantically unrelated to
what are taken to be its paradigmatic uses, is theoretically undesir-
able—particularly if a straightforward semantical relation between
these different uses can be found. We have already indicated what
this relation is: A proper name is (literally) true of an object just in
case that object is given that name in an appropriate way.

In holding that a name applies to an object just in case the object
bears a certain pragmatic relation to that name, I am suggesting that
the name itself enters into the conditions under which it is applicable.
In this respect, proper names differ from many other predicates. Take,
for example, the predicate 'is a dog'. An object could be a dog even if
the word 'dog' were never used as a symbol. But an object could not
be a Jones unless someone used 'Jones' as a name. This mild self-
referential element in the application conditions of proper names can
be further illustrated by comparing

(2) Jones is necessarily a Jones.

with

(3) This entity called 'Jones' is necessarily an entity called 'Jones'.
To obtain (3) we have substituted for 'Jones' in (2) the roughly co-
extensive predicate expression 'entity called "Jones"'. Not surpris-
ingly, both sentences come out false on any occasion of use. Thus,
proper names are like ordinary predicates containing quotation

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[9] "Singular Terms," in *Linguistics in Philosophy* (Ithaca, N.Y.: Cornell, 1967),
pp. 40–41. I have eliminated one of Vendler's examples and adjusted the grammar
to accommodate the elimination.

marks in their intuitively clear failure to be necessarily true of objects to which they apply.

Our predicate view of proper names avoids one source of artificiality in the views of Russell and Quine. It does not involve the claim that proper names abbreviate any descriptive predicates, nor does it involve the manufacture of predicates that are not present in ordinary natural languages. Our account also seems to meet the charge, often raised against the abbreviated-description view, that proper names do not convey information about, or attribute characteristics to, the named object. I do claim that, when a speaker uses the name 'Aristotle' (taken literally), he purports to convey the information that the object of which he speaks, if any, is called 'Aristotle'. But this does not seem to be something anyone would want to deny.

So far I have held that although in surface grammar proper names function sometimes as singular terms and sometimes as general terms, they play the semantical role of predicates—usually true of numerous objects—on all occurrences. How then are we to represent unmodified occurrences, where proper names function as singular terms? This question brings us to the second sense in which proper names may be said to be abbreviations on the Russell-Quine view— abbreviations in one symbol of the semantical roles of a uniqueness operator and a predicate.

Consider the sentence 'Aristotle is human'. On the Russell-Quine view, this sentence would be analyzed as

(4) $(\exists x)((y)(\text{Aristotle}(y) \leftrightarrow y = x) \,\&\, \text{Is-Human}(x))$

or in unexpanded form:

(5) $\text{Is-Human}(\imath x)(\text{Aristotle}(x))$

It has frequently been pointed out that, in order for the Russell-Quine analysis to be strictly correct, the predicate 'Aristotle' must be uniquely true of the designated object (if any). But it is not: there are many Aristotles. The usual answer to this point is that we ordinarily rely on context to resolve the ambiguities of ordinary language.[10] But although it is perfectly in order for natural-language *users* to rely on context to clarify intended reference, the condition that we placed on our discussion at the outset prevents the *theorist* from relying on context in a like manner to clarify intended references in his analyses of truth conditions. Most of the proper names that a person is capable of using at a given time will be true of more than one object. We should therefore reject the claim that proper names in singular unmodified form abbreviate the roles of the uniqueness operator and a predicate.

[10] Cf. Quine, *Methods of Logic, op. cit.*, p. 216 (3d ed., p. 227).

They play instead the roles of a demonstrative and a predicate. Roughly, singular unmodified proper names, functioning as singular terms, have the same semantical structure as the phrase 'that book'. Unlike other predicates, proper names are usually (though, as we have seen, not always) used with the help of speaker-reference and context, to pick out a particular. For this reason demonstratives are not ordinarily attached to proper names, although, of course, they may be so attached. In general, modifications of proper names occur when the speaker is not relying on them, unsupplemented, to pick out a particular. But whether or not the speaker's act of reference is explicitly supplemented with a demonstrative like 'this' is semantically irrelevant.

Evidence for the view that proper names in singular unmodified form involve a demonstrative element emerges when one compares sentences involving such names with sentences involving demonstratives. Apart from speaker-reference or special context, both

Jim is 6 feet tall.

and

That book is green.

are incompletely interpreted—they lack truth value. The user of the sentences must pick out a particular (e.g., a particular Jim or book) if the sentences are to be judged true or false. It is this conventional reliance on extrasentential action or context to pick out a particular which signals the demonstrative element in both sentences.

Further evidence for the view that proper names functioning as singular terms involve a demonstrative element derives from the fact that such proper names usually take widest possible scope. In this respect they are like demonstratives and descriptions governed by demonstratives.[11] Note, for example, that it is hard to hear a reading of either (2) or (3) under which the scope of the singular term is small and the sentence comes out true.

Object-language formalizations of sentences containing proper names that function as singular terms are open sentences. 'Aristotle is human', for example, receives the analysis

(6) Is-Human($[x_i]$Aristotle(x_i))

Our logic includes the uniqueness operator, and we adjust our formation rules to allow open singular terms of the form

(i) $[x_i]A_j{}^n(x_1 \ldots x_i \ldots x_n)$

[11] There are pronominal occurrences of demonstratives and demonstrative-governed singular terms which do not take widest scope if their antecedents do not. These occurrences will be ignored for present purposes. It should be mentioned, however, that in such occurrences proper names sometimes play an abbreviative rather than an independently predicative role.

The bracketed 'x_i' marks the free variable in the term which represents the demonstrative governing the whole scope of the term. '$[x_i]$' is *not* an operator for binding the variable 'x_i'. (i) is to be understood as equivalent to

(ii) $(\imath y)(A_j{}^n(x_1 \ldots y \ldots x_n) \& y = x_i)$

I prefer the form (i) to the more usual form (ii) because it seems to me to represent better the syntax of English. Since 'x_i' is a *free* variable as it occurs in (i), it may be quantified from outside the term—just as 'x_i' can in (ii).

An open sentence like (6) takes on truth value only if the user of the sentence carries out an act of reference in the process of using the sentence, and thereby performs extrasententially a task analogous to that which the iota operator performs in classical logical theory.

Whereas the language user himself relies on extrasentential action or context to designate the object, the truth-theorist is barred by our initial condition from doing the same in his metalanguage. The object referred to by the language user (if any) is specified in the truth theory by means of a set of reference clauses:

(7) $(x)(y)$(Reference(x), & By(x,p) & At(x,t) & With$(x$, 'Aristotle$_1$', 'Aristotle is human') & To(x,y) → ('Aristotle is human' is true with respect to p at t ↔ Human$([y]$ Aristotle$(y))))$

Read: For all x and y, if x is an act of reference by person p at time t to y with the first occurrence of 'Aristotle' in 'Aristotle is human', then 'Aristotle is human' is true with respect to p at t just in case the object which is y and is an Aristotle is human. Here is not the place to expand on the analysis.[12] For our purposes what is important is the contrast between the context-dependence of the object-language representation (6) and the *analysis of context* that occurs in the account of truth conditions (7).

So far I have argued (a) that proper names do not abbreviate other predicates but are themselves predicates, and (b) that in their most common uses proper names involve a demonstrative element. Before arguing against the individual-constants approach to the semantical

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[12] Fuller discussion occurs in my dissertation *Truth and Some Referential Devices* (Princeton University, 1971). As a result of a suggestion by David Kaplan, the bracket notation replaced a less perspicuous predecessor. Note that the quantifier 'y' binds the variable 'y' both as it occurs in 'To(x,y)' and as it occurs in '$[y]$Aristotle(y)'. The subscript on 'Aristotle' marks a particular occurrence of the term in the sentence. (One might use the term more than once in a given sentence to refer to more than one object.) All positions in sentence (7) are fully extensional. The formulation of the antecedent owes something to Donald Davidson's treatment of action verbs; cf. his "The Logical Form of Action Sentences," in Nicholas Rescher, ed., *The Logic of Action and Decision* (Pittsburgh, Pa.: University Press, 1967), pp. 81–95.

role of proper names, I want in sections II and III to place our predi-
cate approach in the context of the two other traditional issues re-
garding proper names: the question of the conditions under which
they designate an object, and the question of how to account for
them when they fail to designate.

II

I have suggested that a proper name functioning as a singular term
designates an object only if the object is given that name in an ap-
propriate way. Despite its intended vagueness, this suggestion pro-
vides an explication for the fact that we talk of the normal or literal
use of proper names. Literal use contrasts with metaphorical use. Un-
like metaphorical uses ('George Wallace is a Napoleon'), literal uses
of proper names—whether or not in singular unmodified form—in-
volve application only to objects that bear them.

It is not always desirable to identify the designation of a proper
name functioning as a singular term with the reference a speaker
makes in using the name. Unlike the object that a speaker designates,
the object that the proper name itself designates can only be an ob-
ject that bears that name. The point is perhaps most evident in the
case of misidentifications.[13] Suppose a novice is fooled into thinking
that he is speaking to Hilbert at the Convention for Aggregative
Psychology. Afterwards he reports, "Hilbert spoke more about men-
tal mechanisms than about syntax." Now if the man at the conven-
tion to whom he speaks is not called "Hilbert," the name does not
designate that man, although the novice does. This is because 'Hil-
bert' is not true of the aggregative psychologist: he is not a Hilbert
(literally, as well as metaphorically). The novice thinks that he is,
but the novice is wrong. Intuitively, one might want to say that
what the novice reported was true of what the novice designated, but
false of what the name designated.

Of course, one might hold that, since the novice used the name to
designate the psychologist, it *did* designate the psychologist. Speak-
ers often use singular terms in ways other than their normal or literal
uses—whether by mistake or by design (lying, irony)—in order to
designate an object other than an object that the terms would nor-
mally be expected to designate. Having noted this special sense in
which names "designate" objects, I propose to ignore it. It seems en-
tirely parasitic on the use of 'designate' to signify a relation between
a person and an object, and so can be passed over without loss.
When we use 'designate' to signify a relation between a proper name

[13] Other aspects of misidentifications are given valuable discussion by Donnellan
in "Proper Names and Identifying Descriptions," *op. cit.*; and "Reference and
Definite Descriptions," *Philosophical Review*, LXXV, 3 (July 1966): 281–304.

and an object, we shall be concerned with a relation between names and those objects which the names normally or literally apply to.

The relation of designation between proper name (functioning as singular term) and object is definable by means of 'refers to' (speaker-designation) and 'is-true-of': A proper name occurring in a sentence used by a person at a time designates an object if and only if the person refers to that object at that time with that proper name, and the proper name is true of that object. On this usage, when the language user (e.g., the novice) refers to an object (e.g., the psychologist) and mistakenly calls the object by a proper name ('Hilbert') which not it but some other (intended) object bears, we shall not say that the proper name designates that other object at that time. But the proper name *is* true of the intended object. And the language user will normally refer to objects of which the name is true when he uses sentences containing the name. The element of predication in singular unmodified proper names accounts for the intuition that one can speak of normal or literal applications of a proper name and contrast them, in some cases, with the object designated or referred to by the speaker.

I have held that a proper name designates an object only if the object is given that name in an appropriate way. I do not intend to define 'given' or 'appropriate way'. It is not incumbent on us (as truth theorists) to define the conditions under which proper names, or any other predicates, are true of objects. The vague necessary and sufficient application condition for proper names which I have offered may be regarded as a mere stand-in for a full-fledged empirical account of how objects get proper names attached to them. Baptism, inheritance, nicknaming, brand-naming, labeling may all be expected to enter into such an account. Semantics, however, need not await the full returns of sociology. Rules like the following are sufficient: 'O'Hara' is true of any object y just in case y is an O'Hara.

The demonstrative-references that occur with the use of singular, unmodified proper names seem often to occur when there is some causal-like relation between named object and language user. But this point does not go very far. At most, it is the bare beginning of a sociological account of the designation conditions of proper names. Moreover, even in this vague form, the point is not fully generalizable. Sometimes names lack designations. Either the proper name is true of nothing or the language user refers to nothing that it is true of. Sometimes names are introduced as surrogates for definite descriptions even when the introducer is not causally related to the named object. Here the demonstrative in our analysis, which is usually represented by a free variable, is not a device for referring to an extra-

linguistic object, but is a pronominal place marker whose antecedent
is the definite description. (Cf. note 11.) Thus: "The shortest spy in
the 21st century will be Caucasian. Call him 'Bertrand'. (That) Ber-
trand will also be bald." There are other cases in which the demon-
strative acts as a bound variable—as when we say, "Someone cast
the first stone. Whoever he was, call him 'Alfred'. (That) Alfred was
a hyprocrite." In neither of these cases need there be a causal rela-
tion between language user and named object.

<div align="center">III</div>

A full account of the semantics and pragmatics of nondesignating
proper names is beyond the scope of this paper. But it may help il-
luminate our treatment of proper names as predicates to make some
brief remarks on the subject. Let us consider the sentence

    (8) It is not the case that Pegasus exists.

as uttered at a particular time by me, where the utterance is to be
construed as a denial of what believers in the existence of an ancient
winged horse might assert. The proper name is functioning as a sin-
gular term. So the logical form of (8) is the same as

    (9) It is not the case that that Pegasus exists.

where the second occurrence of 'that' is read as a demonstrative. The
truth-theoretic biconditional for (8) is roughly

    (10) $(x)(y)$(Reference(x) & By$(x,$TB*$)$ & At$(x,4/23/1970/11$
        AM EST$)$ & With$(x,$ 'Pegasus$_1$', 'Pegasus does not exist'$)$
        & To(x,y) → ('Pegasus does not exist' is true with respect to
        TB* at $4/23/1970/11$ AM EST ↔ $\sim(\exists z)(z = [y]$Pegasus$(y))))$

('TB*' represents a complete canonical specification of me.)

    In the case of proper names that designate an object, the person's
act of reference provides the open singular term representing the
proper name with an interpretation and the containing sentence with
a truth value. The effect of such an act on the truth condition of the
sentence is specified metalinguistically in sentences like (10). But
what of the case in which the proper name designates nothing—as in
(8)? According to our definition of designation in the previous sec-
tion, this case will be realized if and only if either the proper name is
true of nothing or the language user refers to nothing that it is true of.

    Now the failure of 'Pegasus' to designate in my utterance of (8)
does not follow from a failure of 'Pegasus' to be true of anything.
There are plenty of Pegasi; Richard Gale, for example, has a dog by
that name. Hence the failure of 'Pegasus' to designate in my utter-
ance of (8) follows from the fact that I referred to nothing that the
proper name is true of. We are assuming that there was an act of
reference by me at $4/23/1970/11$ AM EST with 'Pegasus'. So I could

refer to nothing that the proper name is true of only if one of two cases holds. On the one hand, it might be that 'Pegasus' in (8) failed to designate because I referred to something that is not a Pegasus:

(11) $(\exists x)(\exists z)$(Reference(x) & By$(x,$ TB*$)$ & With$(x,$ 'Pegasus$_1$', 'Pegasus does not exist'$)$ & At$(x,$ 4/23/1970/11 AM EST$)$ & To(x, z) & $\sim$ Pegasus$(z))$

On the other hand, it might be that I *referred* but referred to nothing at all, so *a fortiori* to no Pegasus:

(12) $(\exists x)$(Reference$(x),$ & By$(x,$ TB*$)$ & With$(x,$ 'Pegasus$_1$', 'Pegasus does not exist'$)$ & At$(x,$ 4/23/1970/11 AM EST$)$ & $\sim (\exists z)($To$(x, z)))$

In the first case, I might be referring to the events that began the Pegasus myth. In the second case my reference would have spatio-temporal direction toward the ur-events of the myth. But it would have no referred-to object. It is clear that sentences like (11) sometimes hold. Such sentences are useful in explaining misidentifications of the sort the novice made. Whether sentences like (12) ever hold is perhaps debatable, though I am inclined to think that they probably do. Fortunately, our formalization in (10) does not force us to take a stand on the issue. The failure of 'Pegasus' to designate in my utterance of (8)—and the truth of the utterance itself—may be explicated by either (11) or (12).[14]

<center>IV</center>

I want to close by making some derogatory remarks about the individual-constants view of the semantical role of proper names. One disadvantage of the view has already been brought out. Our account covers plural and modified occurrences as well as singular, unmodified ones. A constants view not only is more complicated in that it must give a different semantics for these different occurrences (and fail to account as neatly for the obviousness of (1)). But it is also faced with the task of justifying its disunification. Appeal to "special" uses whenever proper names clearly do not play the role of individual constants is flimsy and theoretically deficient.

A second disadvantage of the individual-constants view emerges from reflecting on the respective accounts of the "ambiguity" of proper names. If proper names are treated as ambiguous individual constants, then occurrences designating different objects will have to be differentiated (indexed) in the truth theory for a person at a time. Otherwise, the truth conditions of sentences treated by the theory

[14] It should be noted that, if (12) is chosen as the explication, an additional axiom is needed to prevent (10) from being uninformative because the condition laid down by the antecedent is unfulfilled. But supplying such an axiom is not difficult.

would be ambiguous; and our initial condition would be violated. But such differentiation poses a problem. There is no evident limit on the number of objects that bear a given name. So there is no way to know how many indexes to provide, much less what denotations to provide them with.

A proponent of the constants view may wish to avoid this problem by claiming that the number of objects that a person at a given time knows to correlate with any given name is probably delimitable and manageable. Thus, the claim would be that one need only provide a denotation for each indexed name for which a person has a denotation in his ken.

This position is not as simple as it may seem. In the first place, a name like 'John' would complicate the semantical theory considerably. Whereas the individual-constants approach would have to provide a large number of denotation rules for the name (say, four hundred), our predicate approach provides a single satisfaction rule for it, plus the set of primitive reference clauses applicable to all occurrences of demonstratives (implicit or explicit) in sentences. In the second place, the truth theorist for the idiolect of a person at a time would be presented with the awesome task of actually tracking down and specifying each of the Johns that a person has in his ken in order to complete his theory. Quite apart from the practical difficulties involved—difficulties that would have no analog in any other part of the theory— there are unpleasant theoretical problems in deciding what objects fall within a person's ken at a given time. None of these problems arises on the predicate approach.

A sophisticated variant of the multi-indexed individual-constants treatment of proper names would be to parse them as fully interpreted constants only when they are being used and as dummy constants otherwise.[15] Such a view would allow for the fact that unmodified occurrences of proper names receive their semantical interpretation in and through a person's actually using them. If it were to avoid the previously mentioned problems in specifying the denotations of (used) proper names, the view would have to invoke something like the apparatus that we utilized in our analysis (7). The "denotation" of the proper name would be determined in the context of use by the reference of the language user. Such an approach would treat proper names as very like free variables—a treatment

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[15] Dummy constants are discussed in Rudolf Carnap, *The Logical Syntax of Language* (London: Routledge & Kegan Paul, 1937), pp. 189–195; first published, 1934. (Carnap does not propose the view of proper names I am here constructing.) It should be noted that in some free logics Carnap's way of distinguishing dummy constants and free variables breaks down.

with which I would have considerable sympathy. The disadvantage of the approach is that it would ignore the conventional predicative element, the element of literalness or factuality, in the application conditions of proper names. For example, it would fail to give a semantical representation to the fact that a given name—whether used or unused (at a given time) applies to some objects and not others. As a result, the approach would fail to give a unified account of modified and unmodified occurrences of proper names (cf. (1)).

Our account's handling of the foregoing problems is simple. Proper names are predicates. One need not distinguish truth-theoretically the objects of which they are true. When a proper name occurs in singular-term position, the object designated by the name (if any) is picked out by the language user's reference. And the truth theory specifies that object in a context-independent manner. The designative indefiniteness or "ambiguity" of proper names is reflected by the variable in formal representations. Insofar as proper names exemplify a fundamental way in which language relates to the world, they provide reason to focus not on individual constants, but on variables—and not the variables of quantification, but free variables which represent demonstratives and which receive their interpretation extralinguistically, through the referential actions of language users.

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REFERENCE, MEANING, AND BELIEF*

I. TRANSLATION AND THE PRINCIPLE OF HUMANITY

THE general task of this paper is to analyze the general constraints that govern the acceptance or rejection of translations and to spell out some of the consequences of these constraints for philosophy of language. Many aspects of language and linguistic behavior interest the philosopher of language—our current concern is with the use of language to communicate, and for this purpose it is useful to view language from the point of view of someone translating a foreign tongue. This approach has the virtue that it makes more explicit and deliberate the process of inter-