



I L L I N O I S

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

PRODUCTION NOTE

University of Illinois at
Urbana-Champaign Library
Large-scale Digitization Project, 2007.

370.152

T226

**T
E
C
H
N
I
C
A
L**

**R
E
P
O
R
T
S**

Technical Report No. 7

Names, Descriptions, and Pragmatics¹

Andrew Ortony

February 1976

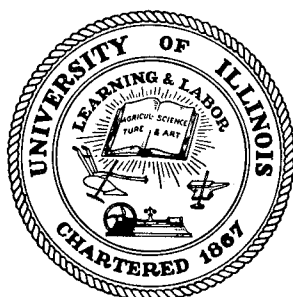
LABORATORY
for
COGNITIVE STUDIES
in
EDUCATION

THE LIBRARY OF THE

OCT 7 1981

UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

University of Illinois at Urbana-Champaign



Technical Report No. 7

Names, Descriptions, and Pragmatics¹

Andrew Ortony

February 1976

University of Illinois
Laboratory for Cognitive Studies in Education
236 Education Building
Urbana, Illinois 61801

The research described herein was supported in part by the
National Institute of Education under
Grant No. HEW NIE-G-74-0007.

This page is intentionally blank.

A reasonable expectation of a fully-fledged theory of reference in natural language would be that it provide at least a basis for determining, in any particular occurrence of a referring expression, a name or description, what function that referring expression is being used to perform. No theory is able to determine whether (1) is true or false, even given the truth of (2) and (3).

- (1) Oedipus wanted to marry his mother.
- (2) Oedipus wanted to marry Jocasta.
- (3) Jocasta was the mother of Oedipus.

Now the reason that no theory can determine whether (1) is entailed by the conjunction of (2) and (3) is that the description "his mother" in (1) occurs in a referentially opaque context. However, giving such a reason is not the same thing as giving an adequate theoretical account, for such an account should make clear why the reason counts as a reason.

Two conclusions could be drawn from the problem that referential opacity poses for referential theory. The first is that the available semantic theories are simply wrong, and we must merely await a better one. The second is that questions of reference, apparently purely semantic questions, cannot be answered by a purely semantic theory but need to be supported by aspects of a theory of pragmatics.

The arguments presented below attempt to support the second of these conclusions. Thus while Kripke² objects to Donnellan's claims³ based on

a distinction between referential and attributive uses of definite description because he suspects "they have little to do with semantics or truth conditions, though they may be relevant to a theory of speech acts," the claims to be pressed here are that it is precisely because of their relevance to a theory of speech acts that they are relevant to a semantic theory of reference.

In spite of Kripke's inclination to reject Donnellan's distinction, he believes that it can be extended to proper names, and in doing so, it could be argued, he lays the groundwork for a solution to some of the problems. Kripke's problem with associating a name with a referential use of a description is that if the description turns out not to apply to its object it is typically withdrawn. But all we need say to this objection is that in fact it was not a referential use of a description of that object (but possibly of some other object).

We can explore further the extension of the attributive/referential distinction to names. In order for a name to be systematically and successfully used it need only denote the entity it does in the language. Thus the prima facie use of a name is referential. It would, in principle, be perfectly possible for two native speakers of a language to communicate about a named entity without having any previously shared knowledge about that entity-- if this were not the case it would be impossible to learn anything by first introducing a name and then predicating things of the named entity. This view

clearly rejects the "principle of identifying descriptions,"⁴ for it allows that a speaker may use a name and have only "vacuous" descriptions to "back it up," as when a child might ask "Who is Ralph Nader," having only a description such as "Someone whose name I have heard."

Indeed, it would seem that the only description which is necessary for the successful and appropriate use of a name is something like "the entity (I believe to be) conventionally referred to as "x" (in my language culture)," and this could hardly be regarded as knowing who or what is referred to in any important, epistemic, sense.

What of definite descriptions? If the prima facie job of names is referential why should the prima facie job of definite descriptions not be attributive. What would it mean to make such a claim? By parallel argument to the case of proper names, one thing it would mean would be that the epistemic prerequisites for the successful and appropriate attributive use of a definite description should be minimal. In the case of a name, the minimal requirement appeared to be the speaker's intention to refer to the entity believed to be conventionally referred to by the name. In the case of the attributive use of a definite description it would be something like the speaker's intention to indicate the attribute(s) implicit in the definite description. No other knowledge would be necessary; the question of the name of any entity possessing that attribute would be as irrelevant as would be knowledge of other attributes such an entity might possess.

Just as names bear a special direct relationship to the entities they denote, so attributive definite descriptions bear a special direct relationship to the attribute(s) they invoke. A definite description can often be directly derived from a predicate (or conjunction of predicates) by the application

of syntactic rules. We will call the predicate(s) from which a definite description is derived the "source predicate." An attributive definite description is derived from a predicate without regard to the entity of which that predicate is (or has been) predicated. Adding credence to this view is the fact that any definite description used attributively can be eliminated and replaced by an occurrence of the predicate bound by a universal quantifier in a hypothetical statement. Consider a modification of Donnellan's⁵ example (4):

(4) The winner of the Indianapolis 500 will drive a turbine.

This can be re-written as (5):

(5) $(x)(x \text{ wins the Indianapolis 500} \supset x \text{ drives a turbine})$

which would be true even if there were no instantiation for x. Consequently, (5) can be construed as being a relation between two predicates, the first of which was transformed into a definite description in (4). There is therefore no reason to believe that (4) refers to an entity at all--it merely asserts a relationship between the predicates.

Let us say, then, that names are prima facie referential, and definite description prima facie attributive, and let us use the terminology "direct uses" for such expressions. We have, then, two types of linguistic entity, names and descriptions, whose primary functions are distinct. But, under certain circumstances, each of these linguistic entities can be used to perform the functions which are basic to the other. These uses we will call "indirect uses." The reason for this is partly terminologically symmetry and partly due to the fact that the epistemic prerequisites are greater

than for direct uses. For, to use a definite description indirectly, that is referentially, it is no longer possible to disregard the entity of which the source predicate is predicated for that entity is now being indirectly referred to through the predicate. In principle, it could have been directly referred to using its name. Similarly, a proper name can be used as an indirect means of using an attributive definite description. To show this we can reverse Kripke's objection to extending Donnellan's distinction.

Two men glimpse someone at a distance raking leaves and one, thinking it to be Jones, says "Jones is doing a good leaf-raking job." The second man informs the first that actually it isn't Jones at all, but it is Jones' son. To misquote Kripke we can say: "an attributive proper name, such as 'Jones', is typically withdrawn when the speaker realizes that it is not the name of its object." All this shows is that the speaker's concern was not with Jones at all but with "the person raking the leaves, whoever he is," and that, of course, is exactly how Donnellan characterizes an attributive use. The reason one can withdraw the name (or in the earlier case, the description) is that we don't care, in indirect uses, whether the description or name fits, for in such cases when we use the description we do so for the purpose of referring, and when we use the name we do so for the purpose of expressing a relationship between predicates.

Let us now summarize our claims so far. Direct uses of names and Indirect uses of descriptions are referential. Direct uses of descriptions and Indirect uses of names are attributive. In the absence of any special assumptions about context we can reconsider (1) and (2) to see these distinctions working. Given our normal assumptions about Oedipus and his sexual ambitions (1) is true if "his mother" is an Indirect use of a description

and false if it is a Direct use of a description. Similarly, (2) is true if "Jocasta" is a Direct use of a name and false if it is an Indirect use of a name. The reason we need a pragmatic account is that such "ceteris paribus" assumptions about context are frequently unsatisfiable. There are pragmatic and stylistic reasons why indirect uses are sometimes necessary. We do, however, have the beginnings of an account of the truth conditions for sentences like (1) and (2). The addition of more pragmatic considerations may enable us to at least make good guesses, if not actually to decide, what function referring expressions are performing in particular cases.

II

Indirect uses of names and descriptions are the ones that are of chief concern in our pragmatic analysis. The simpler of the two cases is that of the indirect use of a name. If a speaker uses a name indirectly, that is, to perform the function of an attributive definite description, he must not only believe that the source predicate of the description is true of the individual whose name he uses, he must also believe that the hearer shares that belief and that the hearer will have some cause to select the particular implied predicate(s) from what may be a very long list of predicates he has associated with the individual. In normal conversation a speaker only uses a name indirectly if one of two conditions has been satisfied:

- (i) The context has already established the attributive definite description, or a narrow range of possible ones.
- (ii) There exists some particularly favored definite description for the named entity.

If one of these conditions is not satisfied the addressee is likely to ask for an explanation; he is likely to ask how or why the assertion is (supposed to be) true.

Consider the example (6):

(6) Alfred Nobel profoundly influenced the nature of warfare.

Unless one can assume, as a speaker, that the addressee knows that Nobel invented dynamite, and that the inventing of dynamite is contextually relevant, it is unlikely that one would initiate a new topic of conversation using (6) unless the name were being used directly. If the name is used indirectly, it is being used to perform the function of an attributive description as in (7):

(7) The inventor of dynamite profoundly influenced the nature of warfare.

If one's addressee were to respond "how?" to (6) the kind of answer one would give would be in terms of Nobel's invention of dynamite. That is, one would have to supply the source predicate associated with Nobel. Such a question asked of (7), however, would not call for a response such as "Nobel invented dynamite" but might call for a missing predicate associated with dynamite and relating it to warfare. The difference between the indirect use in (6) and the direct use in (7) is that the semantic proximity in (7) between the definite description and the predicate is much more direct and apparent than it is between the name and the predicate in (6). Barbara Hall Partee makes a similar point when she says⁶ referential interpretations tend to lack a "strong semantic relation to the content of the rest of the sentence."

Some names refer to entities for which there are favored or preferred descriptions.⁷ Examples are easy to find--"George Washington" and "the first president of the United States," "Gerald Ford" and "the (current) president (of the United States)," "Paris" and "the Capital of France" and so on. Because of this fact condition (ii) above may be satisfied and consequently (8)

(8) George Washington signed a treaty with France

can be used to initiate a new topic of conversation without having previously established which attribute of George Washington is to be selected from the many candidates.

A name, then, when used indirectly can be regarded as fulfilling the function of an attributive description. In such a case a name really is a kind of abbreviation for a description as Russell suggested,⁸ and the speaker normally presupposes that his addressee knows for which description it is standing in.

Definite descriptions used referentially, that is, indirect uses, serve a particularly important function in language, namely that of referring to entities for which either there is no (unique) name, or for which the speaker either does not know the name, or knows that the hearer doesn't. If we are right that the prima facie use of definite descriptions is attributive, then it would follow that in the absence of contrary indications, on encountering a definite description a hearer would attempt to relate the implied predicate, that is, its sense, to the rest of the sentence in which it occurred. If he fails to find a "semantic connection" he may then decide that the expression is being used referentially. As an example consider (9):

- (9) The President who signed a treaty with France sometimes annoyed his father.

A hearer, on deciding that the sense of the definite description bore no apparent relationship to the rest of the sentence, might be inclined then to treat the description as being an indirect use. He might also, justifiably, inquire "What has being a president who signed a treaty with France got to do with annoying one's father?", for the selection of any particular description to refer to an individual always carries with it the question as to why that particular description was selected. So, for a speaker to use a definite description indirectly we can suppose one, or more, of the following conditions must be satisfied:

- (i) The speaker does not know the name of the referent, and/or believes that his addressee doesn't.
- (ii) The referent has no (sufficiently unique) name.
- (iii) The speaker believes that the definite description he uses is derived from a source predicate which he and his addressee believe to be true of the referent.

If none of these conditions is satisfied, or if the addressee believes none of them to be, the addressee will probably fail to understand. Thus, if the addressee did not know that the referent of the definite description in (9) was George Washington he might respond to it by saying "Who was that?" On being told he might understandably complain "If you meant George Washington, why didn't you say so" and the speaker's only justification (assuming he knew George Washington's name, and knew the speaker knew it) would be to

say "I thought you knew that it was George Washington who signed a treaty with France." Another way of putting all this is to say that if a speaker wishes to "pick out" an individual, using the name of that individual is usually the best way! To arbitrarily use some other form is to run the risk of either communicating the wrong thing, or failing to communicate at all. One might say that Grice's maxim,⁹ "be perspicuous," should contain as a submaxim "be direct."

One other reason that speakers employ indirect uses is purely stylistic. It is cumbersome and inelegant to repeatedly utilize the same expression, be it name or description. However, indirect uses employed for stylistic reasons alone usually satisfy the conditions we have laid out above because they generally follow their corresponding direct uses.

III

If the analysis so far is correct it would seem that all occurrences of names and descriptions are open to direct or indirect interpretation, at least in principle. The ideal goal would be a rule which would enable, in any particular case, a determination of which interpretation is to be made. While the ideal goal is almost certainly unattainable, a less ambitious heuristic rule might be possible.

We have suggested so far that there is usually a reason for a speaker to use an indirect form in preference to a direct one. It may be lack of knowledge on his part, a belief in a lack of knowledge of his addressee, or the presence of clear contextual clues as to the fact that the use is, indeed, indirect. The problem of formulating a rule to determine whether a use is direct or indirect is that the only datum available is the sentence,

and without knowledge concerning the circumstances of its use there is no way of reconstructing the speaker's intentions. Nevertheless, a good first approximation is to suppose that all uses are direct. (This will obviously fail in all cases where reference is made to a nameless entity, but it is only a first approximation.) Using this first approximation, let us consider some examples. Take an identity statement such as (10):

(10) Nixon was the 37th President of the U.S.

Both the name and the definite description are best interpreted as being direct uses. Since a direct use of a definite description merely identifies a predicate and since different predicates (typically) have different truth conditions the replacement of the definite description by another will not only change the meaning but will also have different truth conditions. Thus (11) while still true is true for different reasons,

(11) Nixon was the winner of the 1972 presidential election.

for had someone else won the 1972 election that person would have been the 38th president.

What happens when an identity statement appears in a referentially opaque context such as (12)?

(12) George IV wished to know if Scott was the author of Waverly.

Again, within the identity statement we have two direct uses, but, as we know, substitution in such contexts may change the truth value.

Consider the following corollary of our first approximation rule: Substitutions may not be made for direct uses. The penalty for violating

this rule would be an inability to guarantee the truth value and/or modality of the sentence. Thus substituting "Nixon" for "The 37th President" in (10) yields (13),

(13) Nixon was (is) Nixon.

the modality of which is different from that of (10), and, as Russell pointed out,¹⁰ presumably it is false that George IV wished to know if Scott was Scott.

At least part of the problem with referentially opaque contexts is that the pragmatic considerations which might lead to determining whether a use is direct or indirect are not only undetectable from the sentence alone but depend on whether these considerations were exercised by the speaker or by the referent of whom he speaks. Thus to return to the first example (1) if the use of "his mother" is from the point of view of the speaker then there is no reason to include the phrase within the scope of the wants of Oedipus, whereas if it is from that of Oedipus there is. So, in such contexts we have the problem, not only of determining whether the use is direct or indirect, but also of determining whose use it is. Should we read (1) as (1a) or (1b)?

(1a) Oedipus wanted {marry_α} . mother of Oedipus_α

(1b) Oedipus wanted {marry_α} . mother of Oedipus_α}

This ambiguity accentuates the fact that sentences are used by speakers in the performance of speech acts and that the speech acts are better units of analysis than the sentences used to perform them.

Let us nevertheless, persevere. If in a use of (1) "his mother" is direct (1) is false and by our rule substitution is not possible. On the other hand,

if the use is indirect, (1) is true and substitution is possible, provided that the substitution is with the corresponding direct use. But we have said that we should suppose the use to be direct. What could lead to the alternative interpretation? One possibility is that the direct interpretation results in a false sentence and given a choice of interpretations of a sentence a hearer will generally attempt to interpret it as being true. This would suggest that a maxim such as Grice's "try to make your contribution one which is true" might be a higher-level constraint on a hearer's interpretation of an utterance than what we earlier suggested might be a submaxim "be direct." So, a hearer's first assumption is that what he is being told is true. Only then does he assume that the speaker is being direct. If there is a conflict he gives up the latter constraint in preference to the former.

Our conclusions then are these: (1) Unless there is evidence to suggest that the conditions for an indirect use have been satisfied, a good rule is to assume the use is direct. (2) If this assumption produces a false sentence while the assumption of an indirect use produces a true one, treat the use as indirect. (3) Substitutions may be made in all contexts provided that they are only in the direction of indirect uses being replaced by their corresponding direct uses. (4) If substitutions are made from (a) direct uses to other direct uses, or (b) from direct uses to indirect uses, or (c) from indirect uses to other indirect uses, the preservation of truth value and/or modality cannot be guaranteed.

At the beginning of this paper it was suggested that perhaps some questions about reference cannot be answered by a purely semantic theory. Such theories either break down or become very cumbersome in the face of referentially

opaque contexts. Characterizing such contexts independently of the notion of interchangeability salva veritate appears to be a very difficult thing to do. The whole problem seems incomprehensible to, say, a psycholinguist. Why should it be?

Consider the sentence (14):

(14) John kicked the ball.

To be sure, if the referent of "John" stays unchanged the sentence remains true even though some other phrase may be substituted for "John." As far as truth conditions are concerned what matters is that the objects referred to are indeed referred to. What some logician appears to want, however, is that we should be able to guarantee the continued truth of some sentences even when these "objects" change. The reluctance to admit that meaning is a determinant of truth leads to absurdities. Everyone can believe that George IV wished to know whether Scott was the author of Waverly, but, the psycholinguist will be inclined to argue, the object of George IV's concern was the truth of a particular proposition. That proposition was "Scott is the author of Waverly"--not some other, related proposition. The only alternative proposition of concern to George IV would have been a proposition which had the same meaning. If one were to suppose that the "object"--i.e. the referent, were to remain fixed and if one were to suppose, as did Frege,¹¹ that the referent of a sentence were its truth value, then one could see how, if we change the occurrence of "the author of Waverly" for "Scott" we still have a linguistic expression having the same referent (namely "True") and consequently by analogy with (14), substitution salva veritate should be possible.

But whatever the referent of a sentence is, such an analysis is simply wrong. George IV wanted to know whether that particular proposition was true, not whether some other one was. If we allow substitution we change the meaning if not the truth value of the embedded sentence and we may thus produce a proposition which ceases to represent the "object" of George IV's inquiry. We have argued that a direct use of a description bears a special relationship to a predicate--a meaningful entity. If that predicate is replaced or lost so may the meaning. Consequently we might suppose that the only way one can guarantee interchangeability salva veritate in referentially opaque contexts is if we also guarantee interchangeability salva significatione. This is why indirect uses of descriptions may be replaced by their corresponding direct ones, for in their indirect uses their reference is being exploited, rather than their sense. But, in the last analysis, the only way to determine how an expression is being used in a sentence is through a pragmatic analysis; a purely semantic analysis can never work.

I have argued elsewhere¹² that theories about language must eventually take account of people, of what they say, and why they say it. In this spirit, it is interesting to note that people do confuse names for descriptions and descriptions for names. In an experimental investigation¹³ designed to determine whether there was any psychological counterpart to the direct/indirect distinction, subjects were exposed to direct and indirect uses of many names and corresponding descriptions occurring in sentences administered in an incidental learning task. Thus at some point during learning a subject would see both of either (15) and (16), or (17) and (18).

- (15) Abraham Lincoln lived in Illinois.
- (16) The president who freed the slaves was politically astute.
- (17) Abraham Lincoln was politically astute.
- (18) The president who freed the slaves lived in Illinois.

In (15) the name is best regarded as being a direct use as is the description in (16), whereas in (17) the name is more naturally interpreted as being an indirect use as is the description in (18). When subjects were later given a recognition test in which all four sentences somewhere appeared, there was a marked and highly significant tendency for them to falsely recognize direct uses (that they had never seen) and to incorrectly reject indirect uses (that they had seen). One of the conclusions of the study was that people may in fact sometimes spontaneously substitute direct uses for indirect ones, but that these substitutions are not normally made in the other direction.

What we have then, is a rule governing substitution in both referentially transparent and referentially opaque contexts. The rule guarantees the preservation of modality in the former and truth value in the latter and for that reason it can be regarded as a semantic rule. However, the application of the rule cannot be made without taking pragmatic considerations into account, for it is only a pragmatic analysis that can reveal that the use of an expression is in fact an indirect use thus permitting the substitution of the corresponding direct expression.

IV

The analysis of names and descriptions is a traditional pastime of twentieth century philosophers. From the point of view of the linguist, however, the distinction may be rather artificial. The reason for this is that all the problems which have traditionally been handled under the rubric of proper names and definite descriptions, appear to apply just as much to linguistic entities which philosophers would be reluctant to call proper names, and to entities they would be reluctant to call definite descriptions. Complicating the issue is the fact that some linguistic expressions appear to behave sometimes like names and sometimes like descriptions. Expressions of which this is true are not just the obvious cases of "hybrids" such as "The Holy Roman Empire" which philosophers generally agree is a proper name, but more complicated expressions such as those referring to mass, length and time.

At least part of the problem is due to the fact that the terms "proper name" and "definite description" are not well defined. Most philosophers seem to accept Russell's characterization of a definite description as being a phrase of the form "the so-and-so." Yet, "The Holy Roman Empire" has just that form but it is regarded as a name, just as is the phrase "The United States of America." Dates, however, are particularly complicated. Uttered at the appropriate time (19) might well be true:

(19) We hid Easter eggs last Sunday.

Now the phrase "last Sunday" is clearly indirect, because, uttered a week later (19) could well be false.¹⁴ But, if we substitute a direct use what do

we put in? We could put in "Sunday, March 30th 1975," or, "Easter Sunday (1975)." The best candidate would appear to be the latter, but is "Easter Sunday, 1975" a description or a name. The answer would appear to be that it is a name with respect to the phrase "last Sunday" or the phrase "the first Sunday after the full moon on or next after the vernal equinox in 1975." But with respect to the phrase "Sunday, March 30th 1975" it appears to be a description. This suggests that it is possible that some expressions can be more namelike with respect to one set of contrasting alternatives and more description-like with respect to another set.

Names and descriptions cannot be defined in terms of their form because there are counter-instances for both. Consequently it seems better to try to define them in terms of their relationships to the kinds of entities they signify. But this relationship, as we have seen, turns out to be largely a pragmatic affair, sometimes to individuals, sometimes to predicates and even sometimes to both. Further, although the purpose of distinguishing proper names from general terms is to assist in this kind of analysis, it seems that the distinctions we have made apply equally well to general terms. Thus, the noun-phrase "the ostrich" in (20) behaves just like a proper name with respect to the analysis we have given.

(20) The ostrich buries its head in the sand.

Compare the direct use of "The ostrich" with the indirect use of the definite description in (21).

(21) The fastest running bird in the world buries its head
in the sand.

Ordinary language is replete with descriptive phrases which, in principle, could be replaced by more name-like expressions, even though those expressions are not always what could be called proper names. People actually say things like (22).

(22) My wife bought our pet poodle in my home town during our summer vacation.

From a logical point of view they could have said something like (23)

(23) Mary bought Molly in Paris on Thursday, 28th of April.

but probably not from a pragmatic point of view. Indeed, that is why Donnellan's account is not a fully pragmatic account, for he does not distinguish between what could be said and what would be said. At the trial of Jones for the murder of Smith, it is true that one could say (24)

(24) Smith's murderer is insane.

and it is true that the definite description "Smith's murderer" could be used directly or indirectly in the same sentence used on different occasions, but it would not be said. In a situation, such as a trial, where the particular identity of "Smith's murderer" is up for grabs, the referential use of "Smith's murderer" would be most improbable. If the man in the dock behaves oddly, we would refer to him as "the prisoner," or "the man in the dock" or just, simply, "Jones."

Speakers rarely select the words they do arbitrarily. Our theories about language cannot ignore this fact; our intuitions would perhaps be more valuable channeled into probable utterances rather than possible ones.

What is possible is simply too inclusive, even though what is probable may be too speculative. We should never lose sight of the fact that speakers very often have reasons for choosing the expressions they do. Studying the constraints on the exercise of that choice is an important aspect of pragmatics.

Footnotes

1. This work was supported in part by the National Institute of Education under Contract NIE-G-74-0007. I am grateful to Charles Caton, Donald Davidson, Robert Ennis, Richard Garner and Jerry Morgan for discussion and comments on earlier versions of this paper.
2. See: Kripke, S. Naming and necessity. In D. Davidson and G. Harman (Eds.), Semantics of natural language. Boston: D. Reidel Publishing Company, 1972. Pp. 253-355. Kripke's objections to Donnellan's distinction can be found in a number of places. See, for example, footnotes 2 (p. 343), 21 (p. 346) and 37 (p. 348, 349).
3. Donnellan, K. Reference and definite descriptions. The Philosophical Review, 1966, 75, 281-304; and Putting Humpty Dumpty together again, The Philosophical Review, 1968, 77, 203-215.
4. This is the view that Strawson argues for in Individuals, London: Methuen and Co., 1959. Donnellan argues against it in: Proper names and identifying descriptions. In D. Davidson and G. Harman (Eds.), Semantics of natural language. Boston: D. Reidel Publishing Company, 1972. Pp. 356-379. Donnellan characterizes the principle of identifying descriptions by reference to the following passage from Strawson:

". . . it is no good using a name for a particular unless one knows who or what is referred to by the use of the name. A name is worthless without a backing of descriptions which can be produced on demand to explain the application" (p. 20).

5. Donnellan, K. Putting Humpty Dumpty together again. The Philosophical Review, 1968, 77, 205. The main difference between Donnellan's example and mine is that in mine the main verb is in the future tense while in his it was in the past tense.
6. Hall-Partee, B. Opacity, coreference, and pronouns. In D. Davidson and G. Harman (Eds.), Semantics of natural language. Boston: D. Reidel Publishing Company, 1972. Pp. 415-441.
7. I am grateful to Charles Caton for pointing this out.
8. Russell, B. The philosophy of logical atomism. In R. C. Marsh (Ed.), Logic and knowledge. London: George Allen and Unwin, 1964. P. 200.
It must, however, be mentioned that Russell held that names were:
 ". . . abbreviations for descriptions; not only that,
 but what they describe are not particulars, but complicated systems of classes or series."
So Russell adhered to the principle of identifying descriptions, whereas we currently presuppose the need for only one description.
9. See: Grice, P. Logic and conversation. In P. Cole and J. L. Morgan (Eds.), Syntax and semantics, Vol. 3, (Speech Acts). New York: Academic Press, 1975. Pp. 41-58.
10. Russell, B. On denoting. In R. C. Marsh (Ed.), Logic and knowledge. London: George Allen and Unwin, 1964. Pp. 41-56.

11. Frege, G. On sense and reference. In P. Geach and M. Black (Eds.), Translations from the writings of Gottlob Frege. Oxford, Blackwell, 1966. Pp. 56-78. Frege maintained that every declarative sentence which had reference at all (i.e. did not include referring expressions which failed to refer) should be regarded as a proper name whose reference was its truth value.
12. Ortony, A. Language isn't for people: On applying theoretical linguistics to practical problems. Review of Educational Research, 1975, 45, 485-504.
13. Ortony, A., & Anderson, R. C. Definite descriptions and semantic memory. Cognitive Science, in press.
14. This raises the question of whether the direct/indirect distinction can apply to indexical expressions. The examples in the text show that there certainly are at least some cases in which it can.

LABORATORY FOR COGNITIVE STUDIES IN EDUCATION

TECHNICAL REPORTS

- No. 1: Halff, H. M. Graphical Evaluation of Hierarchical Clustering Schemes, October 1975.
- No. 2: Spiro, R. J. Inferential Reconstruction in Memory for Connected Discourse, October 1975.
- No. 3: Goetz, E. T. Sentences in Lists and in Connected Discourse, November 1975.
- No. 4: Alessi, S. M., Anderson, T. H., & Biddle, W. B. Hardware and Software Considerations in Computer Based Course Management, November 1975.
- No. 5: Schallert, D. L. Improving Memory for Prose: The Relationship Between Depth of Processing and Context, November 1975.
- No. 6: Anderson, R. C., Goetz, E. T., Pichert, J. W., & Halff, H. M. Two Faces of the Conceptual Peg Hypothesis, January 1976.
- No. 7: Ortony, A. Names, Descriptions, and Pragmatics, February 1976.
- No. 8: Mason, J. M. Questioning the Notion of Independent Processing Stages in Reading, February 1976.

