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INDEFINITE DESCRIPTIONS:
IN DEFENSE OF RUSSELL*

According to Bertrand Russell (1905, 1919), definite descriptions (phrases of the form 'the F') and indefinite descriptions (phrases of the form 'an F') are devices of *quantification* rather than *reference*. However, under the influence of P. F. Strawson (1950, 1952), many philosophers and linguists appear to be exercised by the fact that, on some occasions of use, descriptions appear to function rather more like referring expressions than quantified noun phrases. Indeed, it is now widely held that definite and/or indefinite descriptions are semantically *ambiguous* between quantificational and referential *interpretations*.

It must be conceded by the Russellian that definite descriptions admit of referential *uses*. But as Saul Kripke (1977) has stressed, it is far from clear that referential uses of definite descriptions are reflexes of semantically referential *interpretations*. With the help of an independently motivated, Gricean distinction between what a speaker *says* and what a speaker *means*,[1] Kripke provides a plausible non-semantic analysis of referential usage that obviates the need to posit a semantical ambiguity. In passing, Kripke suggests that some of his points might carry over *mutatis mutandis* to *indefinite* descriptions. In our opinion, Kripke's suggestion has been insufficiently appreciated; and in this paper we shall attempt to amplify several of his points and provide further reasons for advocating a unitary Russellian analysis of indefinite descriptions. By doing this, we put ourselves in direct opposition to a number of philosophers and linguists who argue for a semantically significant referential interpretation of indefinites.[2] It is our view that the literature on this topic contains no convincing argument for a referential interpretation of indefinites and that methodological considerations favor a unitary Russellian theory.

In Section 1, we spell out Russell's arguments for the existential analysis

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[1] See Grice (1968, 1975). The Gricean/Kripkean strategy for dealing with referential uses of *definite* descriptions is defended in detail in Neale (1990) in the context of a general defence of Russell's theory. That work and the present paper borrow from one another here and there in their mutually supporting projects.
[2] See, e.g., Partee (1972), Chastain (1975), Donnellan (1978), Wilson (1978), Fodor and Sag (1982), Barwise and Perry (1983), and Stich (1983, 1986).

of indefinite descriptions, pointing out some important connections with his theory of definite descriptions. In Section 2, we distinguish various uses of indefinites that have been labelled 'referential', and argue that none of these uses needs to be regarded as reflecting anything semantical in nature. Section 3 concerns ambiguities of scope involving indefinites. We find no syntactical or semantical evidence for a referential interpretation. Section 4 concerns pronouns anaphoric on indefinite descriptions. We argue that Russell's theory is perfectly compatible with what is currently known about the syntax and semantics of pronominal anaphora.

1. RUSSELL'S THEORY OF INDEFINITES

1.1. *Singular and General Propositions*

On Russell's account, a referring expression '*b*' may be combined with a (monadic) predicate expression to express a proposition which simply could not be entertained or expressed if the entity referred to by '*b*' did not exist.[3] Russell often puts this by saying that the referent of '*b*' is a constituent of such a proposition; it will be convenient to follow him in this, but nothing in the present paper turns on this conception of a so-called *singular* proposition.

A sentence consisting of a definite description 'the *F*' combined with a (monadic) predicate phrase does not express a singular proposition; it expresses a *general* proposition, a proposition that is not *about* any entity, in the sense that the proposition is not contingent upon the existence of any entity in particular. Specifically, it does not contain as a constituent the object which in fact satisfies 'the *F*' (if anything does).

For Russell, the distinction between singular and general propositions reflects a certain theory of thought at the heart of which is the following principle: It is not possible for a subject to think about (e.g. have a belief about, make a judgment about) something unless he knows which particular individual he is thinking about.[4] For Russell there are two ways of cashing out *knowing which*: (i) one may be directly acquainted with (or have a memory of being directly acquainted with) the individual in question; (ii) one may think of the individual as the unique satisfier of some definite description or other.[5] In an intuitive sense, there are clearly some entities with which we can be directly acquainted: ourselves, objects in our perceptual fields, and objects with which we have recently come

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[3] For discussion, see Evans (1982) chapters 2 and 4.
[4] See Russell (1911) p. 159; Russell (1912) p. 58.
[5] Russell (1905) pp. 41–2, pp. 55–6, Russell (1912) ch. V.

into epistemic contact. This intuitive notion appears to have been what Russell had in mind in 'On Denoting'.[6] The center of mass of the solar system on April 19th, 1905, the candidate who gets most votes at the next general election, the first person born in the twenty-first century, and the man with the iron mask are examples of things known to us only by *description*. Now there is a sense in which knowledge of something by description is not really knowledge *about* an individual at all:

I shall say that an object is 'known by description' when we know that it is 'the so-and-so', i.e. when we know that there is one object, and no more, having a certain property (1911, p. 159).

The point of this remark is that knowing something by description is a species of knowing *that* rather than knowing *which*. To put it another way, it is sufficient for knowledge of something by description that one know a purely general proposition; to know something by description it is not necessary to be acquainted with the object which in fact answers to the description one knows it under. So on Russell's account, where we have a thought *about* a particular individual, we entertain a singular proposition; where we only have a thought to the effect that a unique individual satisfies some description, we entertain a general proposition.

The insight behind the Theory of Descriptions is simply the following: One can perfectly well understand an utterance of 'the F is G' without knowing who or what answers to the description 'the F'; indeed, independently of whether or not anything actually satisfies 'the F'. Neither failure to be acquainted with the denotation of 'the F' – by which Russell means the individual it *describes* – nor absence of a denotation are barriers to understanding the proposition expressed. For the proposition expressed is just the general proposition that there is exactly one F and that thing is also G (that is, the truth conditions of 'the F is G' are given by '$(\exists x)(Fx$ & $(\forall y)(Fy \supset y = x)$ & $Gx))$'). For referring expressions this is simply not so. If 'b' is a referring expression it is necessary to identify the referent of 'b' in order to understand the proposition expressed by an utterance of 'b is G'.[7]

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[6] Russell later came to hold a far more restricted view, according to which we are acquainted only with sense-data, universals, and (perhaps) ourselves. It is clear, however, that the semanticist can perfectly coherently endorse the Theory of Descriptions without commitment to this idea. For discussion see Neale (1990) Chapter 2.

[7] This is not the place to address the philosophical problem of identification. For discussion, see Evans (1982).

1.2. *Indefinite Descriptions*

Russell's treatment of indefinite descriptions may be stated as follows: If 'an *F*' is an indefinite description and '— is *G*' is a predicate phrase, then the proposition expressed by an assertion of 'An *F* is *G*' is the same as the one expressed by an assertion of 'Some *F*s are *G*s'.[8] Thus the logical form of an utterance of 'An *F* is *G*' is captured by the formula

$$(\exists x)(Fx \ \& \ Gx).$$

Or, in a more perspicuous restricted quantifier notation:

$$[\text{an } x : Fx](Gx).$$

Russell's reasons for denying that indefinite descriptions are referring expressions are most clearly stated in Chapter XVI of his *Introduction to Mathematical Philosophy*:

Our question is: What do I really assert when I assert "I met a man"? Let us assume, for the moment, that my assertion is true, and that in fact I met Jones. It is clear that what I assert is not "I met Jones." I may say "I met a man, but it was not Jones"; in that case, though I lie, I do not contradict myself, as I should do if when I say I met a man I really mean that I met Jones. It is clear also that the person to whom I am speaking can understand what I say, even if he is a foreigner and has never heard of Jones.

But we may go further: not only Jones, but no actual man enters into my statement. This becomes obvious when the statement is false, since then there is no more reason why Jones should be supposed to enter into the proposition than why anyone else should. Indeed the statement would remain significant though it could not possibly be true, even if there were no man at all.

Russell is presenting three separate arguments against treating indefinite descriptions as referring expressions.

(a) The first argument is based on what, at first sight, looks like a plausible test: If one can assert the conjunction of *S1* and ⌐¬*S2*⌐ without contradiction, then the truth of *S1* does not guarantee the truth of *S2*.[9] We might reconstruct the argument as follows. Suppose I met Jones last night; Jones is from York, and I know he is. I now utter (1):

(1)   I met a man from York last night.

If the indefinite description 'a man from York' refers to Jones, then I would have contradicted myself if, instead of (1), I had uttered (2):

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[8] Russell (1919) p. 171.

[9] A similar test – the so-called "cancellability test" – is proposed by Grice (1975) to distinguish conversational implicatures from genuine entailments. Grice's test appears to have more or less the same defects as Russell's diagnostic, in that it fails to distinguish cases where an implicature is present from cases where there is a genuine ambiguity of some sort. For discussion, see Sadock (1978).

(2)   I met a man from York last night but I did not meet Jones last night.

But clearly I would not have contradicted myself had I uttered (2). Therefore 'a man from York' is not a referring expression.[10] Russell is clearly onto something here, but his argument is flawed in numerous ways. At best it shows that 'a man from York' does not *always* refer to *Jones*. It certainly does not show that 'a man from York' is not a referring expression, nor even that this particular occurrence of 'a man from York' is not a referring expression.[11]

(b) The second argument has important connections with Russell's theory of thought. We might spell it out as follows. Suppose I say to someone "A man from York died last night," and, in fact, a man from York did die last night, a man named Jones. All that can be asked of the competent speaker/hearer of English by way of *understanding* my utterance, is that he grasp the general proposition that some man from York died last night. The hearer is in no way required to establish that Jones died last night, even if, in fact, a singular belief about Jones furnishes the grounds for my utterance. (If I had uttered "Jones died last night," the situation would be very different. 'Jones' is a genuine referring expression, and by Russell's Principle, it is necessary to establish the referent of 'Jones' in order to understand the proposition expressed.)

This would seem to point to a substantial difference between indefinite descriptions and genuine referring expressions.

(c) Russell's third argument is based on a strategy he also employs in arguing for his theory of definite descriptions, a strategy we shall also use. Suppose there are no men from York. Then clearly my utterance of 'A man from York died last night' was not about Jones or anybody else. But if 'a man from York' is interpreted as a referring expression then no proposition was expressed: there is no object answering to the descriptive condition and hence no object to make it into any proposition. Yet my utterance still expresses a perfectly determinate proposition. In fact, the proposition expressed by my utterance is false. A proposition is expressed independently of whether the denoting phrase actually denotes. With a referring expression, however, if there is no referent then no proposition is expressed.

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[10] Kaplan (1971) presents more or less the same argument in defense of Russell.

[11] Once one distinguishes between (a) sentence meaning, (b) what is said, and (c) what is communicated, this argument can be cleaned up considerably, but we shall not be appealing to it in what follows.

2. REFERENTIALITY, SPECIFICITY, DEFINITENESS

In order that we may evaluate the claim that some indefinites are semantically referential, we want to present a partial taxonomy of the uses of such phrases (or at least a partial taxonomy of the types of situations in which one might use such phrases). Ultimately, we think that such a taxonomy is of importance to pragmatics rather than semantics; we provide it as a means to establishing how best to understand the claim that indefinite descriptions admit of referential interpretations.

2.1. *Purely Quantificational Uses*

Suppose I receive a telegram from the IRS informing me that an auditor is coming to see me today, and on the basis of this I come to have the general belief that an auditor is coming to see me today. Seeing me looking more despondent than usual, a friend asks me if I'm feeling all right. I respond by uttering (1):

(1)   An auditor is coming to see me today.

Let's use SG ("speaker's grounds") for the proposition that is the object of the most relevant belief furnishing the grounds for an utterance. In this example, SG is a general proposition that [an x: auditor x](x is coming to see me today). And the proposition I *intend to communicate* to my friend is the same general proposition. Let's use PM ("propositions meant") to label the proposition(s) a speaker *intends to communicate*. What we have here, then, is a case where SG = PM. What about the *proposition expressed* (PE) by my utterance? On Russell's account, PE will just be [an x: auditor x](x is coming to see me today) and there seems to be little point in contesting this for the example we are considering.

However, a sentence of the form 'An F is G' may be used to *communicate* something other than an existential proposition; that is, indefinite descriptions may be *used* in a different setting to communicate different things. Let's now look at some of these other uses of indefinites and see if we can find any evidence for the view that indefinites are ambiguous between quantificational and non-quantificational interpretations.

2.2. *Referential Uses*

People seem to have meant various things when they have talked about referential interpretations of indefinite descriptions. To make matters

clear, we want to distinguish between what we shall call *referential, specific, and definite* uses.[12] We begin with the referential use.

Consider a case where SG and PM are both singular. Suppose we notice Jones, whom we both know to be a convicted embezzler, lurking around at a function we are attending. Seeing Jones flirting with your sister, I say to you

(2)   A convicted embezzler is flirting with your sister.[13]

The grounds for my assertion are furnished by a singular belief concerning Jones, that Jones is flirting with your sister. And what I intend to communicate is the singular proposition that Jones is flirting with your sister. Thus SG = PM.[14]

In other cases, I might use the indefinite to highlight an object in the perceptual environment. Suppose we are sitting by a window overlooking your garden. I look out of the window and I see a man uprooting your prize turnips. I utter (3):

(3)   Look! A man is uprooting your turnips

Here I intend to communicate to you a singular proposition about that man in the garden.[15] For present purposes, let's define a referential use of an indefinite as follows:

> An indefinite description 'an F' is being used *referentially* in
> an utterance of 'An F is G' if, and only if, (i) the speaker
> intends to communicate something about a particular individual
> b, and (ii) the speaker is using 'an F' intending that his audience
> shall realize that it is b that he intends to communicate some-
> thing about.

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[12] In this section, we are indebted to John Perry for pointing out that the distinction between the speaker's *grounds* and the speaker's *intentions* that is central to much of the discussion of referential uses of definite descriptions – see Kripke (1977), Donnellan (1978), Davies (1981), Evans (1982), and Neale (1990) – ought to carry over (with modifications) to the study of indefinite descriptions.

[13] This example is adapted from Wilson (1978).

[14] Strictly speaking, it is not necessary that my grounds be furnished by this singular belief at all. I may not actually believe that Jones is flirting with your sister, I may just want to get Jones into more trouble by getting you to believe he is. Nothing in our presentation hinges on the possibility of insincere assertion, and for the sake of simplicity we shall ignore it.

[15] From the point of view of spelling out a theory of singular thought there is an important difference between these two cases of referential usage, due to the fact that we may have discriminating knowledge of individuals in various ways. This, however, is not our concern in this essay. For discussion, see Evans (1982) and Neale (1990).

The claim that referential usage (as we define it) is a reflex of something semantical is nothing short of the claim that, on occasion, indefinites have the characteristic properties of genuine referring expressions. But this claim does not stand up to serious scrutiny. Recall that a noun phrase b is a referring expression just in case its bearer is a constituent of the proposition expressed by an utterance of a sentence containing b. If the indefinites in (2) and (3) are interpreted referentially they should pass Russell's tests with flying colors. In order to understand an utterance of a sentence with a referring expression as subject, one must know which object the expression refers to. Consider the following pairs:

(4)a.   Jones is flirting with your sister
   b.   A convicted embezzler is flirting with your sister
(5)a.   That man is uprooting your turnips
   b.   A man is uprooting your turnips

Names and demonstratives are *bona fide* referring expressions. So, if a speaker S utters (4a) to hearer H, and H does not know who Jones is, then, by Russell's Principle, H will be unable to grasp the proposition expressed by the utterance. Although S would express a perfectly determinate proposition, H would be unable to recover it.[16]

Now suppose S is using 'a convicted embezzler' referentially in an utterance of (4b). S intends to *communicate* something about Jones, and is using 'a convicted embezzler' intending that H shall realize that it is Jones that he intends to communicate something about – because, for example, S thinks (i) that H knows Jones, (ii) that H knows that Jones is a convicted embezzler and (iii) that H can infer from the fact that S is using the indefinite description 'a convicted embezzler', that it is Jones that S intends to communicate something about. But now let us suppose that, contrary to S's expectations, H is not in a position to determine who S has in mind (at least one of (i), (ii), and (iii) fails to hold). Would H thereby be deprived of the possibility of grasping the proposition expressed by S's utterance?

Intuition suggests not. So if the Russellian analysis is to be undermined, the semantical ambiguity theorist must present an argument to the effect that H would be so deprived. As far as we know, no ambiguity theorist has even attempted to provide such an argument. We find ourselves in agreement with Russell and ordinary intuition here: if S speaks clearly, at an audible volume, and if H is a competent English speaker and is

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[16] H may, of course, recover some "weaker" proposition, for instance that someone named 'Jones' is flirting with H's sister.

paying attention, then H will have a shot at grasping the proposition expressed, namely the proposition that a convicted embezzler is flirting with his sister. Performing the inference S expects him to perform is surely no part of what is required of H in order for him to grasp the proposition expressed by an utterance of (4b).

An analogous point can be made with respect to (5). Suppose S utters (5a) but H is in some way prevented from seeing who S demonstrates; then H simply cannot be said to have understood S's remark. Failure to identify the referent of the demonstrative 'that man', results in failure to grasp the proposition expressed.

Suppose S is using 'a man' referentially in an utterance of (5b). S intends to communicate something about that man in the garden, and is using 'a man' intending that H should realize that it is that man he intends to communicate something about – because, for example, S thinks that H has a clear view of the garden and that H can infer from the fact that S used 'a man' that it is that very man in the garden that he intends to communicate something about. But now suppose, contrary to S's expectations, H is prevented from seeing just who it is that S intends to communicate something about. Does it follow that H cannot grasp the proposition expressed, viz., that a man is uprooting his turnips?

Again, intuition sides with Russell; and again it is incumbent upon the theorist who maintains that the indefinite is a referring expression to produce some sort of argument for that view. In both (4b) and (5b) then, treating the indefinite as a referring expression just seems to lead to a counter-intuitive conclusion.

With respect to example (4), Russell's second diagnostic is even more telling. I see Jones, whom we both take to be a convicted embezzler, flirting with your sister. I decide to inform you of this fact. It takes me several minutes to find you, and during this time, and unknown to me, Jones leaves the party. However, Smith, also a convicted embezzler, starts flirting with your sister. By the time I find you, it is no longer true that Jones is flirting with your sister, but it is true that Smith is. I utter (4b) with the intention of informing you that Jones is flirting with your sister. I am again using 'a convicted embezzler' referentially. Here the Russellian and the referentialist make divergent predictions concerning the truth value of the utterance of (4b). The Russellian predicts that (4b) will be true. The referentialist predicts that it will be false. Intuition again sides with Russell: I spoke truly albeit by accident.

Finally, whatever the force of these arguments *against* a referential interpretation of indefinites, we should note that there is an observation (due to Grice (1975) and Kripke (1977)) that undercuts a number of

arguments *for* such an interpretation. Suppose we find a linguistic community whose members speak a language L with the surface syntax of some version of first-order logic with equality. Assume, further, that each member of this community knows and uses an explicit first-order semantics to interpret L. Would the members of this linguistic community be unable to communicate singular propositions using existentially quantified sentences? Surely there is no reason to think they would be subject to such a limitation.[17]

We suggest that the following characterizes the example we just considered, involving a referential use of 'a convicted embezzler':

> SG: flirting-with-your-sister(Jones)
> PE: [an x: convicted-embezzler x](x is flirting-with-your-sister)
> PM: flirting-with-your-sister(Jones)

The speaker's grounds are singular. What the speaker intends to communicate is a singular proposition; but the proposition expressed is just a general proposition. The mere existence of a referential use of indefinites does not warrant the postulation of a semantical ambiguity. The phenomenon in question can (and we believe *should*) be accounted for non-semantically, as part of a more general theory of communication and inference of the sort pioneered by Grice.

2.3. *Specific Uses*

There is another use of indefinite descriptions, closely related to the referential use, but sufficiently different to warrant independent discussion. The rough and ready way of characterizing this use makes use of the idea of "having an individual in mind." Consider the following modification of the tax auditor case discussed in 2.1. Suppose I was audited by the IRS last year, by a man called Bill Beastly. Mr. Beastly caused me untold misery for three days, at the end of which he ruled that I owed the IRS a further two dollars. I receive a letter from the IRS informing me that Mr. Beastly will be coming to see me again this year, in fact today, and so come to have the singular belief that Mr. Beastly is coming to see me today. In response to a question about my look of gloom, I answer, as before, by uttering (6):

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[17] Grice's way of making the point officially concerns the logical particles & and v, and their natural language counterparts, but it comports well with his remarks against a referential interpretation of definite descriptions in Grice (1969). Kripke's (1977) way of making the point is directed specifically at the idea of a referential interpretation of definite descriptions, but as he points out, it ought to carry over *mutatis mutandis* to indefinites.

(6)   An auditor is coming to see me today.

Now let's suppose I have no reason to expect you (my addressee) to know of Mr. Beastly, or to know that I was audited by the IRS last year. All I intend to communicate is the general proposition that an auditor is coming to see me today. We have here, then, a case where SG and PM do not coincide:

SG: *Fa, Ga*
PM: [an *x*: *Fx*](*Gx*).

When the speaker has singular grounds for an assertion of the form 'An *F* is *G*' but no intention of communicating a singular proposition, let us say that the indefinite description 'an *F*' is used *specifically*.

We can distinguish two types of cases involving a specific use of an indefinite. In the case just discussed, you (the hearer) would probably not deduce that I (the speaker) had singular grounds for my assertion. But now consider the following example of a specific use. You and I are driving through a village and you notice a smashed store window. "I wonder who did that?" you ask. I reply with (7):

(7)   A colleague I had coffee with last night did it.

I have a singular belief concerning some particular colleague I had coffee with last night, but I do not intend or expect you to identify who it was. (I may or may not intend you *not* to be able to identify who it was.) However, you would undoubtedly take me to have singular grounds for this assertion. Although I do not expect you to have identifying knowledge of the colleague I had coffee with last night, upon reflection I would expect you to realize that a singular belief furnishes the grounds for my utterance. Let's call this a *strongly* specific use of an indefinite and the previous case of the tax auditor a *weakly* specific use of an indefinite, the difference being that in the latter there is no reason to expect the hearer to think that the speaker has singular grounds for the assertion.[18]

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[18] Both of these cases may be contrasted with the following (adapted from Fodor and Sag, 1982) in which the speaker *intends* to convey that he has singular grounds for his assertion. Suppose I am about to give back some examination papers that I have just graded. And suppose that I have been informed by somebody not in the class that Henry cheated. Before I hand back the papers, I say "A student in this class cheated on the examination", intending full well to convey that I know of one of the students that he cheated. Once again we have a case involving a strongly-specific use of an indefinite, but in addition it is part of my communicative intention to convey that I have singular grounds for my assertion. It would seem, then, that specificity is a graded phenomenon, increasing in strength as information about speakers grounds is made available.

A question now emerges: Is there any reason to suppose that the existence of specific uses of indefinites requires postulating a non-Russell-ian interpretation?

The general form of the argument against treating a referential use of an indefinite as a reflex of a referential interpretation (see Section 2.2) also holds for the specific use.[19] To claim that when I utter (7) the indefinite 'a colleague' receives a referential interpretation is tantamount to claiming that my epistemic history can prohibit me from making a purely existential assertion by my use of a sentence of the form 'An F is G'. We should rightly reject this. (Indeed, purely existential grounds for an existential assertion must be quite the exception.) Thus the semanticist who thinks that there is a non-Russellian interpretation of the indefinite description in (7) will be forced to argue that the proposition expressed is neither the existential proposition provided by Russell's analysis nor a singular proposition about some particular colleague, but some other proposition.

What, on this view, would be the proposition expressed? It might be

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[19] Many writers seem to think that an indefinite description used specifically should be interpreted as a referring expression. Fodor and Sag (1982), for example, claim that in

(i)   A student in the syntax class cheated on the final exam

"[the] indefinite noun phrase may be semantically interpreted in two distinct ways. One semantic interpretation is that of a quantified expression such as *each student* or *few students*; the other interpretation is that of a referring expression such as a proper name or demonstrative phrase" (p. 355). But then they go on to say that the indefinite in (i) will be a referring expression even if the speaker "does not identify" the person he knows to be the cheater, (p. 356) i.e. even if the sentence is used specifically, and not referentially. Fodor and Sag seem to be suggesting that the indefinite in such examples is just like a name for which the hearer does not know the referent. It is true, of course, that we sometimes use a name in circumstances where our addressee turns out to be unable to identify the referent, and it is just as surely true that this fact does not mean that the names uttered cannot be referring expressions. But with names it is plausible to suppose that the reference is fixed by some sort of historical, or information-based chain, or by the common practice of a community of language users. (See Kripke (1972) and Evans (1973) for discussion.) Whatever the merits of such accounts of naming, it is obvious that they do not provide (nor are they *intended* to provide) any sort of account of reference for indefinite descriptions. (Nor, of course, does talk of *demonstration* help in the case we are considering.) It is quite unnecessary for a hearer H to establish exactly who I had coffee with last night in order to understand my utterance of (7).

The difference between the quantificational interpretation and the specific interpretation – whatever it is – cannot, then, be cashed out in terms of the difference between a general and a singular proposition. Although Fodor and Sag do not overtly invoke Russellian singular and general propositions, they are clearly under the same relevant obligations as theorists who do, because they explicitly follow Kaplan when they emphasize the special role of the *bearer* of a referring expression *vis-a-vis* the semantics of so-called referential indefinites and appeal to his technical apparatus in spelling out the formal details. However, one cannot be

argued that *two* propositions are expressed: the existential proposition and the proposition that the speaker has singular grounds for his assertion (or the *conjunctive* proposition obtained from these). This proposal may or may not involve some sort of self-reflexive paradox: an utterance u of 'An F is G' made by S at time t will express the proposition that [an x: $Fx](Gx)$ and the proposition that S's grounds for u are singular. But even if this side of the proposal is unproblematic, the Gricean/Kripkean methodological considerations tell against it. Not only is it difficult to see why a language community that knew and used a Russellian semantics for 'An F is G' would be incapable of communicating something other than a purely existential proposition by uttering 'An F is G', it is unclear how, given the meaning of 'had coffee with x' one could *fail* to do so by uttering this sentence (given the meaning and attendant epistemological justification necessary for a correct utterance of 'I had coffee with x').

2.4. *Definite Uses*

Suppose that many people in a certain wealthy village have had their jewelry stolen over the last two months. The police are convinced that the thefts were all carried out by a single individual. They issue a warning about "the local jewelry thief." One morning, one of the villagers comes back from a walk to find his house has been broken into. The ground floor of the house has been completely ransacked and his jewelry has been stolen. Later in the day he meets a friend who asks him why he is so upset. The villager replies as follows:

(8)   A jewelry thief paid me a visit this morning

Let us suppose that the villager's grounds for his utterance are furnished by the non-singular belief that the local jewelry thief paid him a visit this morning. That is, the grounds for his assertion are furnished by a general belief concerning the unique satisfier of some definite description. It is also this descriptive proposition he wishes to communicate to his friend. Here we get the following breakdown:

SG: [the x: jewelry thief x](paid-me-a-visit x)
PE: [an x: jewelry thief x](paid-me-a-visit x)
PM: [the x: jewelry thief x](paid-me-a-visit x)

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at all sure about the point of this appeal because Fodor and Sag appear to part company with Kaplan at critical points, for instance, when they assert that ". . . expressions like *I* and *now* are not rigid designators, since their denotations vary with the context of utterance, . . ." (1982, p. 385).

(where '[the x: Fx](Gx)' is the restricted quantifier rendering of '$(\exists x)(Fx$ & $(\forall y)(Fy \supset y = x)$ & $Gx))$')'. Let's call this a definite use of an indefinite description:

> A description 'an F' is used *definitely* in an utterance of 'An F is G' if, and only if, (i) the speaker's grounds for his utterance are furnished by the non-singular belief that the unique F is G, and (ii) the speaker intends to communicate that the F is G (or at least intends to communicate that some such non-singular belief furnishes the grounds for his utterance).

The claim that definiteness is a semantical phenomenon amounts to the claim that the proposition expressed in this example is of the form [the x: Fx](Gx). This is an odd claim. Consider the case where there is not a single jewelry thief, but rather two. Under such circumstances the semantical account entails that what was *said* in (8) was false, for what was said (on such a view) was that there is a unique jewelry thief and he paid a visit. We find such a result highly counter-intuitive, for we think it clear that under such circumstances, the speaker of (8) said something quite true.

The conclusion we draw from this section is that nothing about the *use* of indefinite descriptions warrants the postulation of a semantically referential interpretation. In the next section, we address the question of whether there is anything about *linguistic structure* that warrants such an interpretation.

3. INDEFINITES AND SCOPE

3.1. *Kripke's Observations*

In 'On Denoting' Russell points out that sentences containing definite descriptions and verbs of propositional attitude give rise to so-called *de re-de dicto* ambiguities that his quantificational analysis of descriptions captures in terms of scope permutations. For instance, (1) is ambiguous between (2) and (3):

(1)   John thinks that the man who lives upstairs is crazy
(2)   [the x: man x & x lives upstairs] (John thinks that (x is crazy))
(3)   John thinks that ([the x: man x & x lives upstairs] (x is crazy)).

Many people have been attracted to the idea of accounting for the *de re*

reading of (1) in terms of a referential interpretation. But as Kripke (1971, 1977) has argued, this idea is misguided. Suppose John has a singular belief concerning the man who lives upstairs, that he is crazy. I may correctly report this state of affairs by uttering (1) with the definite description 'the man who lives upstairs' understood *de re*. But this does not mean that I have used this description *referentially* (or even *specifically*). *I* may entertain no relevant singular proposition about the man in question nor any intention to communicate such a proposition. Russell captures this reading by giving the definite description wide scope over 'John thinks that' as in (2).

Kripke also points out that no binary distinction can replace Russell's notion of scope. A sentence like:

(4)   Mary doubts that John thinks that the man who lives upstairs is a spy

is *three* ways ambiguous according as the description is given wide, intermediate, or narrow scope with respect to 'Mary doubts that' and 'John thinks that'.

It is clear, then, that definite descriptions understood *de re* cannot, in general, be identified with descriptions understood referentially, and that a semantical ambiguity between Russellian and referential interpretations of definite descriptions cannot replace either the *de re–de dicto* distinction or the wide-scope/narrow-scope distinction, as it shows up in attitude contexts. So even if one could provide a good argument for a referential interpretation of the description in (1), *we would still need the wide scope reading* given by (2).

In passing, Kripke (1977) notes that parallel considerations apply to *indefinite* descriptions in attitude contexts.[20] But for some reason the ramifications of this fact have been insufficiently appreciated in the literature. Sentence (5) is ambiguous between (6) and (7):

(5)   John thinks a student of mine cheated.
(6)   [an x: student of mine x] (John thinks that (x cheated))
(7)   John thinks that ([an x: student of mine x] (x cheated)).

First, the wide scope reading given by (6) cannot be emulated by a reading in which the indefinite is treated referentially. Suppose someone tells me that a student of mine is such that John thinks of him that he cheated but

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[20] See also Higginbotham (1988).

does not know of him that he is one of my students. Suppose further that I am not informed of the identity of the student in question. If someone who knows John but is otherwise completely unconnected with my school asks me why I look so upset, I might utter (5), and my utterance would be true on the wide scope reading given by (6). But a semantically referential interpretation of 'a student of mine' would be incorrect here. I have not even *used* the phrase 'a student of mine' referentially. I don't know the identity of the student, nor do I have any intention to get you to identify any particular student. In short, if the indefinite description in (5) is provided with a referential interpretation it will express a *singular* proposition; but the wide scope reading given by (6) expresses a *general* proposition. (Similarly, the condition necessary for a specific use of the indefinite is not satisfied because I do not have singular grounds for my utterance: I do not know the identity of the student in question. However, there is something interesting about this sort of case, viz. that the indefinite is used in what we might call an *agent-specific* fashion.)

Second, even if one could demonstrate conclusively that indefinite descriptions have referential interpretations, as Kripke points out the referentialist would still have to appeal to Russell's notion of scope in order to capture the intermediate scope reading in a sentence like the following

(8)   Hoover charged that the Berrigans plotted to kidnap a high American official

which is three ways ambiguous.

These facts demonstrate that indefinite descriptions understood *de re* cannot, in general, be identified with indefinite descriptions understood referentially, and that a semantical ambiguity between Russellian and referential interpretations of indefinite descriptions cannot replace either the *de re–de dicto* distinction or the wide-scope/narrow-scope distinction, as it shows up in attitude contexts. So even if one could provide a good argument for a referential interpretation of the description in (5), *we would still need the wide scope reading* given by (6).[21]

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[21] That we are not dealing with a phenomenon that is confined to definite and indefinite descriptions is made clear by a sentence like:

(i)   John thinks that everyone who lives on the twentieth floor is a spy.

A wide scope reading of 'everyone who lives on the twentieth floor' is needed to capture the fact that there is a reading of (i) which could be true if John has singular beliefs concerning each person who lives on the twentieth floor that that person is a spy but does not know that the persons in question live on the twentieth floor. In such a situation, a referential or specific interpretation of 'everyone who lives on the twentieth floor' would not be appropriate.

3.2. *Fodor and Sag's Observations*

In the light of Kripke's observations it is somewhat surprising to find that facts about the scope possibilities of indefinite descriptions have been appealed to in attempts to undermine a unitary Russellian analysis. Fodor and Sag (1982), for example, devote a very large part of their paper to this enterprise, and claim that the behavior of indefinites in so-called *scope islands* shows decisively that indefinites have semantically distinct referential interpretations. In particular, Fodor and Sag argue that (i) if a unitary quantificational analysis of indefinites is to be maintained, the Russellian must attribute to these phrases exceptional "island-escaping" properties that other quantified phrases do not have, and (ii) that a semantically distinct referential interpretation captures all of the relevant data. Of course, since referential interpretations of descriptions cannot replace wide scope readings, Fodor and Sag simply *cannot* establish claim (ii). At most, they can hope to provide us with a catalog of facts about the scope possibilities of indefinites. However, some of the data Fodor and Sag bring up are quite interesting, and it seems to us important to clarify the issues they raise.

Embedded clauses such as those introduced by attitude verbs and relative clauses are supposed to create, or at least contribute to the creation of, scope islands. For example, there does not seem to be a reading of (9) in which 'every British detective' takes wide scope over 'a man in Bermuda':

(9)   A man in Bermuda thinks that every British detective is after him.

But now consider:

(10)   Every man in Bermuda thinks that a British detective is after him.

Here the indefinite description appears to be able to take wide scope. This suggests to Fodor and Sag that the scope of 'every British detective' in (9) can be no larger than the sentence embedded under the attitude verb, whereas no such restriction applies to indefinite descriptions. They conclude that either indefinite descriptions are quantifiers with exceptional scope properties or else they admit of referential interpretations; they opt for the latter.

There are several points to take issue with here. Let's begin by laying out

both the legitimate and illegitimate scope possibilities for the embedded quantifiers in (9) and (10):

(9)a.   [an x: man-in-Bermuda (x)] (x thinks that
        ([every y: British detective (y)] (y is after x)))

   b.   [an x: man-in-Bermuda (x)] ([every y: British detective (y)
        (x thinks that (y is after x)))

   c.   [every y: British detective (y)]
        ([an x: man-in-Bermuda (x)] (x thinks that (y is after x)))

(10)a.   [every x: man-in-Bermuda (x)] (x thinks that
        ([a y: British detective (y)] (y is after x)))

   b.   [every x: man-in-Bermuda (x)] ([a y: British detective (y)]
        (x thinks that (y is after x)))

   c.   [a y: British detective (y)]
        ([every x: man-in-Bermuda (x)] (x thinks that (y is after x))).

The first point is that, for reasons already given, a reading of (10) in which 'a British detective' is referential (or specific) cannot replace (10c); so the fact that (10c) is a legitimate reading of (10), while (9c) is not a legitimate reading of (9), does not advance the case for a referential interpretation in the least. This can be made clear with the help of an example like

(11)   Mary wonders whether Jane doubts that every man in Bermuda
       thinks that a British detective is after him

in which the indefinite may take wide scope over 'every man in Bermuda' without taking widest possible scope. The fact that this reading is available, and the fact that (10) admits of reading (10b), both falsify Fodor and Sag's claim that "an indefinite that escapes from an island has *maximally* wide scope with respect to any quantifiers or logical operators outside the island" (p. 374).

Second, the behavior of 'a British detective' is not exceptional. Wide scope readings for 'several detectives', 'three detectives', and 'some detectives' are available in the same environment.

Third, if (9c) is blocked because unexceptional quantifiers cannot escape from sentences embedded under attitude verbs, how can the acceptability of the intermediate reading (9b) – not to mention (10b) – be explained? The fact that (9b) is a perfectly good reading of (9) shows that the unexceptional quantifier 'every British detective' must be allowed to escape from the sentence embedded under the attitude verb. The unac-

ceptability of (9c) as a reading of (9) must be explained in some other way.[22]

Fodor and Sag base their main argument for a referential interpretation of indefinites on the scope possibilities of sentences like (12):

(12)   Each teacher overheard the rumor that a student of mine cheated.

According to Fodor and Sag, 'a student of mine' in (12) can be understood as taking maximally wide scope but not as taking intermediate scope, and this fact, they argue, undermines scope-based explanations of the "wide scope" readings. If all scope readings were available for (12) we would have the following possibilities:

(12)a. [each x: teacher x] ([the y: rumor-that-([a z: student-of-mine z] (z cheated))(y)] (x overheard y))

   b.   [each x: teacher x] ([a z: student-of-mine z] ([the y: rumor-that-(z cheated)(y)] (x overheard y)))

   c.   [the y: rumor-that-([a z: student-of-mine z] (z cheated))(y)] ([each x: teacher x] (x overheard y))

   d.   [a z: student-of-mine z] ([each x: teacher x] ([the y: rumor-that-(z cheated)y] (x overheard y))).[23]

It is reading (12b) that Fodor and Sag object to. Now even if they are right that this is not a legitimate reading of (12) – and it is not at all clear that they are[24] – this would show merely that *not all scope possibilities are*

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[22] This might suggest that attitude verbs *do* impose a constraint on the interpretation of quantifiers contained in sentences they embed, but a weaker one than is usually assumed: a quantifier in a sentence embedded under an attitude verb may not take wider scope than a quantifier not so embedded. Such a constraint would rule out (9c) while allowing (9a) and (9b) as readings of (9). One attracted to this idea might then propose that (10c) is not a genuine reading of (10), and offer a pragmatic account of why the truth of (10c) might be inferred. When (10) is read as (10b), in suitable circumstances one might reasonably conclude that every man in Bermuda has the same detective in mind. So even if the indefinite cannot take wide scope – which, of course, we have not assumed – it might still present the *illusion* of taking wide scope. This seems to be more or less the position taken by Cooper (1979).

[23] Fodor and Sag do not represent the possibilities quite like this, but the differences are not important for present purposes. (The main difference is that Fodor and Sag ignore the fact that, for the Russellian, 'the rumor that...' is a definite description, and hence a quantifier. Consequently they do not get (12c), which is in any case equivalent to (12a).)

[24] It is worth mentioning that many of our informants actually disagree with Fodor and Sag's intuitions that (12b) is not a genuine reading of (12). Consider the following sentences:

   (i)   Each teacher overheard seven rumors that a student of mine cheated

   (ii)   Each teacher overheard many rumors that a student of mine cheated.

These sentences exhibit the same structure as (12), yet the intermediate understanding for

permissible. This is a far cry from showing that (12d) must be replaced by a referential reading of the indefinite description! (And in any case, Kripke's observations stymie any chance of such a replacement).

Another argument offered by Fodor and Sag, indirectly related to the behavior of indefinites in nonextensional environments, is an argument from certain facts about VP deletion. They claim (following Sag (1976) and Williams (1977)) that VP deletion fails if a quantifier in the deleted VP has wide scope. So for example in (13), we cannot interpret the NP 'everyone' in the first sentence as having wide scope:

(13)   Someone loves everyone and Chris knows that someone does.

'a student of mine' is fine. For example, in (i) we can imagine a situation in which each teacher overheard rumors about one of my students (perhaps not the same student that the other teachers heard rumours about), and in every case the teacher overheard seven distinct rumors. These examples can be improved further. The term 'rumor' here is problematic, as it is hard to discriminate rumors on the basis of the way they are told. For example one person might report to the teacher of hearing that Jackie wrote the answers on her sleeve, and another person might report (second hand) that Jackie wrote the answers on a stick of chewing gum. Given two such reports, it is not clear whether the teacher has heard one rumor of cheating or two. A much better example would be one with *reports* or *exclamations* (construed as utterance events):

(iii)   Each teacher overheard seven reports that a student of mine cheated

(iv)   Each teacher overheard many exclamations that a student of mine cheated.

If there is an intermediate understanding of the indefinite in these examples, there seem to be two obvious ways of accounting for it. First, one might reject the view that attitude verbs create scope islands. Alternatively, one might opt for a pragmatic explanation. Suppose every teacher comes to overhear several reports communicating a unique singular proposition, but each teacher overhears the communication of a different singular proposition. That there is a unique singular proposition communicated is not what was expressed in examples (iii) to (iv), but it is something we might be tempted to infer in appropriate circumstances.

Consider now the intermediate reading of (12) given by (12b). This is simply the case in which each teacher overheard a different rumor but each rumor was about a particular student, and an analogous pragmatic explanation could be constructed. It interesting to note that Fodor and Sag appear to back off a bit when they say (p. 375) that some may find their judgments about example (12) "less than compelling," and suggest that conditionals containing indefinites might be more persuasive. We find no reason to dispute the received view that a conditional sentence is composed of two sub-sentences and a binary sentential connective, and to that extent we too assume that a quantifier in the antecent or consequent of a conditional cannot take wide scope over the entire conditional; so, in effect, we are quite prepared to go along with Fodor and Sag in viewing conditionals as what they call "scope islands." Now Fodor and Sag note that

(v)   If a student on the syntax exam cheats every professor will be fired

cannot mean that for every professor there is a student such that if the student cheats the professor will be fired. But as King (1988) has observed, the missing intermediate reading in this example has an explanation, namely that to generate it, it would be necessary for the

With indefinites, however, it appears that VP deletion is possible when the indefinite has wide scope. Thus:

(14)   Everyone loves a woman I dated and Chris knows that everyone does.

However, indefinites are not the only quantifiers that can exhibit this property. Hirschbühler (1982) observes that the same phenomenon occurs with 'every' in examples like the following:

(15)   An American flag flew over every house and a Canadian one did too

(16)   An American flag flew over every house and Sal knows that a Canadian one did too

The universally quantified noun phrase must be taking wide scope in these sentences. (One could sincerely utter such sentences without committing oneself to the existence of a single gigantic flag flying over every house.) Moreover, if a universal quantifier can take wide scope here, why should it be surprising if a quantificational indefinite can do the same?

4. INDEFINITES AND ANAPHORA

Facts involving pronominal anaphora appear to have convinced some philosophers and linguists that a unitary Russellian treatment of indefinite descriptions cannot be maintained. In this section we shall explain why we believe that Russell's proposal is quite consistent with what is known about the semantics of anaphoric pronouns.

4.1. *Bound vs Unbound Anaphora*

It is a familiar point that many occurrences of pronouns that are anaphoric on quantified NPs can be treated as variables bound by those quantifiers:

(1)   Every Frenchman loves his mother
(2)   A woman was teaching her son how to ski
(3)   A man from Texas thought he had lost his wallet.

However, in the light of the work on pronouns by Evans (1977, 1980), it is clear that some pronouns anaphoric on quantified NPs cannot be in-

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universally quantified NP 'every professor' to escape the consequent clause of the conditional, i.e. it would be necessary for it to violate a scope island.

terpreted as bound variables. To see this, let's back up a bit and focus on Strawson's (1952) observation that an indefinite description in one sentence may function as the antecedent of an anaphoric pronoun in a subsequent sentence as in

(4)   A man walked into the room. He fell over.

Strawson sees this type of cross-sentential anaphora as a problem for Russell's existential analysis of 'a man': surely the pronoun 'he' refers to the man who walked into the room, i.e. to whoever 'a man' refers to; but on Russell's account 'a man' has no referent.

The naive Russellian response to this sort of objection goes back to Geach (1962): we should treat 'he' in the second sentence as a bound pronoun. The logical form of (4) can thus be represented as

(5)   [an x: man x] (walked-into-the-room x & fell-over x).

preserving the insight that the indefinite is quantificational.

However, Evans (1977) has exposed some serious defects in this proposal. First, notice that the bound variable treatment doesn't extend to other quantifiers. If the pronoun 'them' in (6) is treated as a variable bound by 'some men', the logical form of (6) is given by (7):

(6)   Some men walked-into-the-room. They fell over.

(7)   [some x: man x] (walked-into-the-room x & fell-over x).

As Evans points out, this is quite wrong. First, (7) will be true as long as some of the men that walked into the room fell over; but on its most natural reading, the truth of (6) requires *all* of them to fall over. Thus the bound proposal delivers the wrong truth conditions.

Second, there is a syntactical reason for thinking that the pronouns in (4) and (6) are not bound by their antecedents: the pronouns are not *c-commanded* by the quantified NPs that are supposed to be binding them.[25] Indeed, detailed investigation reveals that it is only when the NP does not c-command the pronoun that the previous problem occurs.[26]

Third, because it incorrectly extends the scope of the quantifier to bind a pronoun in an adjacent sentence, the bound variable analysis wrongly predicts that the nonsensical 'No men came in and they fell over' will

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[25] Following Reinhart (1976) we will say that a noun phrase x c-commands a noun phrase y if, and only if, the first branching node dominating x also dominates y, and neither x nor y dominates the other.

[26] See Evans (1980), Davies (1981) and Neale (1990).

be synonymous with the perfectly intelligible 'No men came in and fell over'.[27]

It is clear, then, that an alternative to the bound variable analysis is required for pronouns not c-commanded by their antecedents. So what is the Russellian to say about unbound anaphora? Let's begin by returning to Strawson's problem. Consider the following examples:

(8)   *A convicted embezzler* is flirting with your sister; *he*'s drunk

(9)   Look! *A man* is uprooting your turnips; *he* looks hungry

Let's assume that these sentences are uttered under the circumstances we described in Section 2. In both (8) and (9), it is claimed, the occurrence of 'he' in the second sentence is anaphoric on the indefinite description in the first. Since (it is assumed) the pronoun is a referring expression, and since the pronoun "picks up" its reference from the indefinite antecedent, the conclusion we are to draw is that the indefinite must be a referring expression.

There are two interesting premises in this argument: (i) the pronouns in question refer; (ii) the pronouns "pick up" their references from the antecedent indefinite noun phrases. Premise (i) ignores the possibility (later suggested by Cooper (1979) and Parsons (1978)) that some unbound pronouns are interpreted as definite descriptions.[28] On such an account, (8) might be interpreted as

(8')   *A convicted embezzler* is flirting with your sister; *the convicted embezzler that is flirting with your sister* is drunk.

with the pronoun 'he' cashed out as the definite description 'the convicted embezzler that is flirting with your sister'. If this proposal succeeds, then

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[27] It is also arguable that the bound variable analysis does considerable violence to our intuitive ascriptions of truth and falsity. When uttering a sequence of sentences like those in (2) and (3) it seems reasonable to suppose that a perfectly determinate claim has been expressed after the first sentence has been uttered. But if we are to take Geach's proposal seriously, we would have to say that a complete claim has not been made until the second sentence has been uttered. Indeed, a complete claim will not have been made until the speaker is through using pronouns that are anaphoric on the indefinite.

[28] Evans (1977) was the first to present a comprehensive account of unbound anaphors in terms of definite descriptions. Parsons (1978) and Cooper (1979) suggest that unbound pronouns go proxy for definite descriptions, a view Evans rejects in favor of the view that descriptive pronouns (*E-type* pronouns, as he calls them) have their references *fixed* by description in the sense of Kripke (1972).

premise (i) is false as definite descriptions are not referring expressions but quantifiers.[29]

Premise (ii) ignores the possibility (later suggested by Kripke and Lewis) that some apparently anaphoric pronouns refer to individuals raised to salience in one way or another.[30] As Lewis puts it:

> I may say 'A cat is on the lawn' under circumstances in which it is apparent to all parties to the conversation that there is some one particular cat that is responsible for the truth of what I say, and for my saying it. Perhaps I am looking out of the window, and you rightly presume that I said what I did because I saw a cat; and further (since I spoke in the singular) that I saw only one. What I said was an existential quantification; hence strictly speaking, it involves no reference to any particular cat. Nevertheless it raises the salience of the cat that made me say it. . . Thus although indefinite descriptions – that is, idioms of existential quantification – are not themselves referring expressions, they may raise the salience of particular individuals in such a way as to pave the way for referring expressions that follow. (p. 243)

On this sort of account, pronouns like those in the above examples would not pick up their respective contents from their indefinite "antecedents", but would function as genuine referring expressions. In (9) for example, the pronoun would not inherit its content from 'a man', but would simply refer to an individual assumed by the speaker to be in the shared perceptual environment. On this account, the pronoun is referential even though its antecedent is quantificational.

If an unbound pronoun is to be treated as a definite description let's say it is a *D-type* anaphor; and if it is to be treated as a referring expression let's say it is an *A-type* anaphor.[31] It is clear that Russell's treatment of indefinite descriptions is compatible with both D-type and A-type accounts of pronouns anaphoric on such phrases. One interesting empirical question, then, is which approach provides the most plausible and general account of unbound anaphora in natural language. We should stress immediately that there is no reason to rule out an overall theory that makes room for both D-type *and* A-type anaphors. That is, perhaps the rules of

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[29] It will not do to contest this conclusion on the grounds that definite descriptions might be referring expressions. For the purposes of this essay we are entitled to assume that *some* occurrences of definite descriptions can be analysed as quantified NPs. Even if one holds (as we do not, see Neale (1990)) that some occurrences of English definite descriptions are referential, the point still stands. The crucial idea is that these pronouns may well have descriptive content, which is just to say that they are quantificational. Whether or not English descriptions are *always* quantificational is irrelevant here.

[30] See Kripke (1977) and Lewis (1979).

[31] These labels are borrowed very loosely from Sommers (1982). Whereas Evans' (1977) E-type pronouns have their references fixed by description, D-type pronouns go proxy for definite descriptions. Unlike E-type pronouns, D-type pronouns may therefore enter into scope interactions with other operators. The ramifications of this difference are explored in Davies (1981) and Neale (1990).

language dictate only that an unbound pronoun anaphoric on a quantifier must be interpreted as a referring expresion *or* a description. It would then be a question for pragmatics exactly how any particular unbound anaphor is interpreted.[32]

We are inclined to think that the D-type approach is more likely to provide the basis of a general theory of unbound anaphora; but we are also inclined to think that a reasonable case can be made for the view that, on occasion, pronouns anaphoric on indefinite descriptions receive A-type interpretations. We are not going to present the details of a theory of D-type anaphora here because that would require addressing a variety of questions about the interpretation of definite descriptions that would take us too far astray.[33] We shall however, address several problems that may arise in the interpretation of purportedly D-type pronouns that are anaphoric on indefinite descriptions.

Let us take the position that if P is a pronoun anaphoric on a quantified NP that does not c-command P, then P is interpreted as a definite description. As pointed out by Evans (1977, 1980), it would seem that the content of such a pronoun is systematically related to the content of the sentence containing its antecedent:

(4)   A man walked into the room. He fell over.

(10)   Only one man walked into the room and he looked very frightened

(6)   Some men walked into the room. They fell over.

In (4) and (10), the pronoun is plausibly interpreted as the singular definite description 'the man who walked into the room'; in (6), the pronoun 'them' is plausibly interpreted as the plural definite description 'the men who walked into the room'. At this point, we might propose the following rough generalization:

(P)   If x is a pronoun that is anaphoric on, but not c-commanded by a quantifier '$[Dx: Fx]$' that occurs in an antecedent clause '$[Dx: Fx](Gx)$', then x is interpreted as '$[$the $x: Fx$ & $Gx]$'.

Assume a Russellian semantics for singular definite descriptions: if F is singular then '$[$the $x: Fx$ & $Gx]$' is true iff every F is G and there is exactly one F (that is, where F is singular '$[$the $x: Fx$ & $Gx]$' is the restricted

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[32] With respect to unbound pronouns anaphoric on definite descriptions, a related idea is mentioned briefly by Kripke (1977).
[33] For extended discussion, see Neale (1990).

quantifier rendering of '$(\exists x)(Fx \;\&\; (\forall y)(Fy \supset y = x) \;\&\; Gx))$'). Extending Russell's theory in the manner suggested by Chomsky (1975), if F is plural then '[the x: $Fx \;\&\; Gx$]' is true iff every F is G and there are at least two Fs.[34]

The relevant question now is whether the conjunction of (P) and Russell's semantics for indefinite descriptions succeeds once we get beyond the simple cases discussed so far.

4.2. D-type Content

A. Uniqueness Implications.

Consider the following example:

(11)   Socrates kicked a dog and it bit him.

Geach has objected to any implication of uniqueness generated by a theory that analyzes 'it' in (11) as (or via) a Russellian description, on the grounds that it would be perfectly coherent to utter the conjunction of (11) and (12):

(12)   Socrates kicked another dog and it did not bite him.

But all Geach's example really shows is that the problem of so-called "incomplete" definite descriptions – a problem that Strawson (1950) first brought up for Russell's (1905) quantificational analysis of definite descriptions – recurs for D-type pronouns (indeed, it would be most odd if the problem did not recur). There are two points here. (i) All sorts of quantifiers ('the dog', 'no men', 'most politicians', etc.) must either have their contents completed by contextual means (using e.g., additional descriptive material or temporal parameters) or have their domains of quantification contextually delimited if our intuitive ascriptions of truth and falsity are to hold; thus it is no objection to Russell's quantificational analysis that many occurrences of definite descriptions are incomplete. (ii) As we would expect, the phenomenon of underspecified D-type pronouns is not restricted to cases involving anaphora on singular indefinite descriptions. Consider (13) and (14):

(13)   Harry bought some books. He put them in his office with some other books he bought

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[34] We shall not attempt to defend this proposed semantics for singular and plural descriptions here. See Neale (1990).

(14)   Several politicians entered the room. They went straight over
         and talked to several other politicians who entered the room.

The moral here is surely that rote applications of (P) will not always
deliver the full descriptive content of a D-type pronoun; sometimes a
degree of contextual flexibility is required in spelling it out.[35]

B. Donkey Anaphora.

According to Heim (1982), both Russell's analysis of indefinites and
broadly D-type approaches to unbound anaphora are undermined by so-
called donkey anaphora as exemplified in sentences like (15) and (16):[36]

(15)   Every man who buys a donkey vaccinates it
(16)   If a man buys a donkey he vaccinates it

Let's focus on (15). The problem here is that if the pronoun 'it' is treated
as going proxy for a singular description, (15) will come out as (17)

(17)   Every man who buys a donkey vaccinates the donkey he bought

(with 'he' bound by 'every man who buys a donkey'). But then on Russell's
account of definite descriptions (17) is false if any man buys more than
one donkey.

This type of example is widely regarded as thwarting descriptive ap-
proaches to unbound anaphora; but it is our belief that there is not very
much of a problem here at all.

One idea might be to follow a suggestion made by Parsons (1978) and
Cooper (1979) and claim that there really is an implication of uniqueness
in examples of the form of (15), and then back up this claim by pointing
to an example like the following:

(18)   Every man who has a daughter thinks she is the most beautiful
         girl in the world.

It is not really possible to evaluate this proposal without a detailed dis-
cussion of the semantics–pragmatics distinction, so we shall simply leave
it open as a possibility to be explored.

A second idea would be to appeal to the existence of D-type pronouns
that are silent on the matter of semantical number, an idea suggested in

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[35] For a detailed discussion of these points, see Davies (1981) ch VII and Neale (1990) chs
3 and 6.
[36] On the first point, see also Kamp (1981).

passing by Parsons (1978) and Davies (1981) and developed in detail by Neale (1990). The idea here would be that some D-type pronouns anaphoric on quantifiers that do not give rise to cardinality implications – e.g. 'every donkey', 'each donkey', 'some donkey', 'a donkey' – might be interpreted as descriptions that are neither singular or plural. On this account, (15) would be interpreted as

(19)   Every man who bought a donkey vaccinated the donkey or donkeys he bought.

A third idea would be to appeal to event or situation quantifiers that are implicit in many sentences, an idea explored by Berman (1987), Heim (1990), and by Ludlow (forthcoming). On such an account, a paraphrase of (16) might be something like "For every event e, if e is a buying of a donkey by a man, then there is a related event f which is a vaccinating of the unique donkey bought in e by the man who bought that donkey in e."

None of these options need involve a radical departure from the D-type approach to unbound anaphora, and to that extent donkey anaphora does not seem to present the Russellian with any insurmountable obstacles.

C. Pronominal Contradiction

Consider the following dialogue, adapted from Strawson (1952):

(20) A: A man fell in front of the train.
        B: He didn't fall, he was pushed.

This is a perfectly coherent dialogue, but if we cash out the anaphoric pronoun using (P) we get something that is always false:

(21)   The man who fell in front of the train didn't fall, he was pushed.

Following a suggestion made by Davies (1981), the D-type theorist might say that the pronoun in (20) has an ironical character that can be captured by marking off its descriptive content with scare quotes. Thus B's utterance in (20) might be interpreted in exactly the same way as:

(21)   The man who "fell in front of the train" didn't fall, he was pushed.

The logical form of (21) might be cashed out as (22):

(22)   [the x: man x & x is said to have fallen in front of the train](x

didn't fall) & [the x: man x & x is said to have fallen in front of the train](x was pushed).

One helpful way to think about this proposal is to suppose that the speaker may know that the hearer is deluded about certain facts – for example, that someone was pushed in front of the train – and will *humor* the hearer by assuming a descriptive content that comports with the hearer's until such time that the hearer can be straightened out. Thus the speaker "ironically" assumes a certain descriptive content.

Notice that there are ironic uses of *explicit* definite descriptions in discourse. For example imagine a case where a man posing as a Green Peace representative comes to ask me for a contribution. I give the man fifty dollars and tell you about it later that day. But you know the "Green Peace representative" to be a con man and you reply:

(23)   The "Green Peace representative" you speak of was a con man and just conned you out of fifty dollars.

Again, to the extent we find this phenomenon with overt decriptions, we ought to expect it with D-type pronouns.

D. A-type Anaphors?

We mentioned earlier that there is no reason in principle to rule out a theory of unbound anaphora that makes room for both D-type *and* A-type pronouns. Indeed, if it is true that pragmatic factors determine the content of any particular D-type anaphor then it is not really much of a modification to the theory to say that an unbound pronoun may receive *objectual* rather than descriptive content.

What do we mean by this? The overarching idea would be that the interpretation of an unbound pronoun is not determined by semantical rule; rather it is fixed by contextual factors. Very often descriptive material from preceding utterances is used, but on occasion it may just be so obvious which object or objects the speaker has in mind that the pronoun can be interpreted referentially. A useful strategy in thinking about the semantical content of a particular occurrence of a pronoun (e.g.) 'he' in an utterance, is to think about how the speaker might respond to a question like "Who did you mean by 'he'?" Let's go back to the tax auditor case. I say to you "A tax auditor is coming to see me today. He will probably need to see my credit card receipts." You then ask "Who did you mean by 'he'?" I reply "The tax auditor who is coming to see me today." Contrast this with a case in which the indefinite description is

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being used referentially. We are sitting by a window overlooking your garden. I notice a man uprooting your prize turnips, and I say "Look! A man is uprooting your turnips; he looks angry." You ask "Who did you mean by 'he'? Now it is true that I could reply by saying "The man who is uprooting your turnips." But an equally reasonable answer under the circumstances would be "Him; that man over there," perhaps accompanied by some sort of gesture or demonstration. This suggests that some unbound anaphors might be interpreted referentially. Of course, one might just maintain that the D-type pronoun is being used referentially too and that this creates the illusion of a referential interpretation in the same way as it does for referential uses of overt definite descriptions and, of course, indefinite descriptions.

There is no need for us to adjudicate between these proposals here. The main point is that Russell's account of indefinites is compatible with either a comprehensive D-type account of unbound anaphora or with a theory that allows for both D- and A-type anaphors.

We have attempted to show that the existence of so-called referential uses of indefinites, the possibility of indefinites taking maximally wide scope in complex syntactical constructions, and the possibility of cross-sentential anaphora on indefinites can all be handled without postulating a semantically distinct referential interpretation. And to this extent it is our hope that talk of the semantical relevance of so-called "specific," "definite," or "referential" indefinites, and the ensuing confusion that such talk ultimately creates, can be avoided.

REFERENCES

Barwise, J. and J. Perry: 1983, *Situations and Attitudes*, MIT Press, Cambridge.
Berman, S.: 1987, 'Situation-based Semantics for Adverbs of Quantification', *UMass. Occasional Papers in Linguistics*, **12**.
Chastain, C.: 1975, 'Reference and Context', in K. Gunderson (ed.), *Minnesota Studies in the Philosophy of Science, vol. VII: Lanage, Mind, and Knowledge*, University of Minnesota Press, Minneapolis.
Chomsky, N.: 1975, 'Questions of Form and Interpretation', *Linguistic Analysis* **1**.
Cooper, R.: 1979, 'The Interpretation of Pronouns', in F. Heny and H. Schnelle (ed.), *Syntax and Semantics, Vol. 10*, Academic Press, New York.
Davies, M.: 1981, *Meaning, Quantification, Necessity*, Routledge and Kegan Paul, London.
Donnellan, K. S.: 1978, 'Speaker Reference, Descriptions, and Anaphora', in P. Cole (ed.), *Syntax and Semantics 9: Pragmatics*, Academic Press, New York.
Evans, G.: 1973, 'The Causal Theory of Names', *Proceedings of the Aristotelian Society*, Supplementary Volume 47. Reprinted in Evans (1985).
Evans, G.: 1977, 'Pronouns, Quantifiers and Relative Clauses (I)', *Canadian Journal of Philosophy*, **7**. Reprinted in Evans (1985).

Evans, G.: 1980, 'Pronouns', *Linguistic Inquiry* **11**. Reprinted in Evans (1985).

Evans, G.: 1982, *The Varieties of Reference*, Clarendon Press, Oxford.

Evans, G.: 1985, *Collected Papers*, Clarendon Press, Oxford.

Fodor, J. D., and I. Sag: 1982, 'Referential and Quantificational Indefinites', *Linguistics and Philosophy* **5**.

Geach, P.: 1962, *Reference and Generality*, Cornell University Press, Ithaca, NY.

Grice, H. P.: 1969, 'Vacuous Names', in D. Davidson and J. Hintikka (eds.), *Words and Objections*, Reidel, Dordrecht.

Grice, H. P.: 1975, 'Logic and Conversation', in J. Cole and J. Morgan (eds.), *Syntax and Semantics, Vol 3: Speech Acts*, Academic Press, New York.

Heim, I.: 1982, *The Semantics of Definite and Indefinite Noun Phrases*, Garland Press, New York.

Heim, I.: 1990, 'E-type Pronouns and Donkey Anaphora', *Linguistics and Philosophy* **13**.

Higginbotham, J.: 1988, 'Is Semantics Necessary?', *Proceedings of the Aristotelian Society*.

Hirschbühler, P.: 1982, 'VP Deletion and Across-the-board Quantifier Scope', NELS XII, Graduate Linguistics Student Association, Amherst.

Kamp, H.: 1981, 'A Theory of Truth and Semantical Interpretation', in J. Groenendijk et al. (eds.), *Formal Methods in the Study of Natural Language*, Amsterdam Centre.

Kaplan, D. 1971, 'What is Russell's Theory of Descriptions?', in D. F. Pears (ed.), *Bertrand Russell: A Collection of Critical Essays*, Doubleday Anchor, Garden City, NY.

Kaplan, D.: 1977, 'Demonstratives', in J. Almog, J. Perry, and H. Wettstein (eds.), *Themes from Kaplan*, Oxford University Press, New York.

King, J.: 1988, 'Are Indefinite Descriptions Ambiguous?', *Philosophical Studies*, **53**.

Kripke, S.: 1971, 'Identity and Necessity', in M. K. Munitz (ed.), *Identity and Individuation*, New York University Press, New York.

Kripke, S.: 1972, 'Naming and Necessity', in D. Davidson and G. Harman (eds.), *Semantics of Natural Language*, Reidel, Dordrecht.

Kripke, S.: 1977, 'Speaker's Reference and Semantic Reference', in French, Uehling, and Wettstein (eds.), *Contemporary Perspectives in the Philosophy of Language*, University of Minnesota Press, Minneapolis.

Lewis, D.: 1979, 'Scorekeeping in a Language Game', *Journal of Philosophical Logic* **8**.

Ludlow, P.: forthcoming, 'Conditionals, Events, and Unbound Pronouns'.

Neale, S.: 1990, *Descriptions*, MIT Press, Cambridge.

Parsons, T.: 1978, 'Pronouns as Paraphrases', manuscript, University of Massachusetts, Amherst.

Partee, B.: 1972, 'Opacity, Coreference and Pronouns', in D. Davidson and G. Harman (eds.), *Semantics of Natural Language*. Reidel, Dordrecht.

Reinhart, T.: 1976, 'The Syntactic Domain of Anaphora', Ph.D. dissertation, MIT.

Russell, B.: 1905, 'On Denoting', *Mind* **14**.

Russell, B.: 1911, 'Knowledge by Acquaintance and Knowledge by Description', Proceedings of the Aristotelian Society 1910–11. Reprinted in Russell's *Mysticism and Logic*. George Allen and Unwin, London.

Russell, B.: 1912, *The Problems of Philosophy*, Oxford University Press, Oxford.

Russell, B.: 1919, *Introduction to Mathematical Philosophy*, George Allen and Unwin, London.

Sadock, J.: 1978, 'On Testing for Conversational Implicature', in P. Cole (ed.), *Syntax and Semantics, Vol 9: Pragmatics*, Academic Press, New York.

Sag, I.: 1976, *Deletion and Logical Form*, Ph.D. dissertation, MIT.

Sommers, F.: 1982, *The Logic of Natural Language*, Clarendon Press, Oxford.

Stich, S.: 1983, *From Folk Psychology to Cognitive Science*, MIT Press, Cambridge, Mass.

Stich, S.: 1986, 'Are Belief Predicates Systematically Ambiguous?', in R. J. Bogdan (ed.), *Belief*, Clarendon Press, Oxford.

Strawson, P. F.: 1950, 'On Referring', *Mind* **59**. Reprinted in Strawson's *Logico-Linguistic Papers*, London: Methuen, 1971.
Strawson, P. F.: 1952, *Introduction to Logical Theory*, Methuen, London.
Williams, E.: 1977, 'Discourse and Logical Form', *Linguistic Inquiry* **8**.
Wilson, G.: 1978, 'On Definite and Indefinite Descriptions', *Philosophical Review* **87**.

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